UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA

ELOUISE PEPION COBELL, : Civil Action 96-1285 et al.

## Plaintiffs

V.

DIRK KEMPTHORNE, Secretary of the Interior, et al.

Defendants : MORNING SESSION

TRANSCRIPT OF EVIDENTIARY HEARING DAY 2
BEFORE THE HONORABLE JAMES ROBERTSON UNITED STATES DISTRICT JUDGE

APPEARANCES :

For the Plaintiffs: DENNIS GINGOLD, ESQUIRE
LAW OFFICES OF DENNIS GINGOLD
607 14th Street, NW
Ninth Floor
Washington, DC 20005
(202) 824-1448

ELIIOTT H. LEVITAS, ESQUIRE
WILLIAM E. DORRIS, ESQUIRE
KILPATRICK STOCKTON, L.I.P.
1100 Peachtree Street
Suite 2800
Atlanta, Georgia 30309-4530
(404) 815-6450

KEITH HARPER, ESQUIRE
JUSTIN GUILDER, ESQUIRE
KILPATRICK STOCKTON, L.I.P.
607 14th Street, N.W.
Suite 900
Washington, D.C. 20005
(202) 585-0053

DAVID C. SMITH, ESQUIRE
DANIEL R. TAYLOR, JR., ESQUIRE
KILPATRICK STOCKTON, L.L.P.
1001 West Fourth Street
Winston-Salem, North Carolina 27101
(336) 607-7392

```
For the Defendants: ROBERT E. KIRSCHMAN, JR., ESQUIRE
    JOHN WARSHAWSKY, ESQUIRE
    MICHAEL QUINN, ESQUIRE
    J. CHRISTOPHER KOHN, ESQUIRE
    GLEN GILLETT, ESQUIRE
    U.S. Department of Justice
1100 L Street, N.W.
Washington, D.C. }2000
    (202) 307-0010
JOHN STEMPLEWICZ, ESQUIRE
Senior Trial Attorney
U.S. Department of Justice
Commercial Litigation Branch
Civil Division
Ben Franklin Station
P.O. Box }97
Washington, D.C. 20044
(202) 307-1104
Court Reporter: REBECCA STONESTREET
Official Court Reporter
Room 6511, U.S. Courthouse
333 Constitution Avenue, N.W.
Washington, D.C. 20001
(202) 354-3249
```

Proceedings reported by machine shorthand, transcript produced by computer-aided transcription.


## PROCEEDINGS

THE COURT: Be seated everybody, but counsel, I would like to see all counsel in chambers, all of you. Eric will show you out through the back door, just for a few minutes.

COURTROOM DEPUTY: Civil Action 96-1285.

THE COURT: All right. Is Mr. Miller here, Dr. Miller?

Good morning, sir. You're still under oath.

THE WITNESS: Yes, sir.
(DR. JAMES MILLER, PLAINTIFF witness, having been previously duly sworn, testified as follows:)

CROSS-EXAMINATION

BY MR. STEMPLEWICZ:
Q. Good morning.
A. Good morning.
Q. Yesterday you testified about the TGA, the Treasury's

General Account, and I believe you likened that to the
government's bank account. Is that right?
A. Yes.
Q. What exactly did you mean by that?
A. Well, when monies come in to various agencies, as well as directly to Treasury, they end up in the TGA.
Q. And when you say monies, you're referring to cash. Correct?
A. Well, cash or checks or -- yeah.
Q. So how does money get out of the TGA? How does that cash get out of the TGA?
A. Well, Treasury can write checks, other agencies can write checks on the monies in the TGA.
Q. But what is required before a check can be written? There has to be some authority to write that check. In very general terms here, we're not getting down into real details, but in most general terms, how do you explain how a government expenditure is authorized?
A. Well, it's a matter of law.
Q. So there would have to be an appropriation of some kind. Correct?
A. Well, not really. I mean, a lot of monies that go in the TGA and out of the TGA are pursuant to what are called entitlement spending, where the amounts of money are not appropriated each year, it's a matter of permanent authority. Q. What about in the case of Individual Indian Monies? What would authorize a check to be cut out of that fund?
A. I have read some of the materials, a lot of the legal language. My understanding is that Interior has authority to cut their own checks drawing --
Q. But wouldn't there have to be -- I'm sorry to interrupt, but wouldn't there have to be an authority, or at least a balance in the fund account? In other words, the IIM that is administered by Interior is represented by a fund account; I think you talked about Mr. Gregg's testimony yesterday and he talks about 14X-6039, that being the account that's used to keep track of

IIM. So wouldn't there have to be some balance in that fund to --
A. Well, my understanding is it's an aggregate account. There are not accounts for each individual Indian in the Treasury General Account, there is in the Treasury General Account monies from IIM monies in the aggregate.

And again, we need to distinguish between the money and the claim on the money. Just like when a person has a checkbook, they have a claim on money that's in the bank, though the money in the bank is fungible and mixed with everybody else's money.
Q. It's essentially the difference between cash and funds, in a sense. The funds account is what's used to keep track of where the cash is authorized to go?
A. I don't want to comment on the nomenclature. I think I explained what I understand about the difference. There is a claim, an account, a claim, and that's different from the cash in the account.
Q. When the Army pays for a tank, for example, it purchases from a manufacturer, it writes a check to pay for the tank. Doesn't that money come out of the TGA?
A. My understanding is that the Department of Defense is different in that regard. They're different in a lot of regards with respect to budgeting. But my understand is it doesn't come out of the TGA.
Q. Okay. Any idea where it would come out of?
A. They have their own accounts, their own deposits. That's my understanding, subject to check.
Q. Let's go over again your understanding of the benefit to the government from having this Individual Indian Money. I believe you testified that having that cash eliminates the need to borrow. Is that correct?
A. Well, having the cash -- and let's define the cash. The cash is whatever receipt -- the degree to which receipts exceed outlays to individual Indians.
Q. It's basically net cash?
A. Net cash.
Q. Okay.
A. When you have that net cash, you don't have to borrow that amount and you don't have to pay interest on what you borrowed. Q. And you would borrow that amount to make expenditures of the government. Correct?
A. If you didn't have the cash, you would have to borrow the money to make expenditures to the government -- for the government.
Q. And if you had surplus cash, your receipts exceeded outlays, and so at the end of a given year the government takes a look at where things stand and says, a-ha, we have a surplus this year, what are we going to do with that, normally what does the government do with that?
A. Well, at every day, every hour, practically, through the year, the government is turning over dead instruments; dead instruments are becoming due, are maturing, and they have to refund the cash, give the cash back. And so this maturing debt has to be refinanced, has to be reissued. You have to do new borrowing throughout the year.

So even if you have a surplus during the year for the end of the year -- of course, as we know, there are injections of cash and there are drawdowns of cash, and debt management has a lot to do with smoothing out those variations. But even if you have a surplus, you're continually churning that debt and issuing new borrowing. Or doing new borrowing. Excuse me. Q. So I just want to make one thing clear, that when the government benefits from Individual Indian Monies, first of all we're talking about net, net of disbursements out of --
A. Yes, sir.
Q. -- individual monies?

We're also talking about net of investments that Interior or Treasury purchases with that cash to put in an investment for the individual Indian. That wouldn't be free roaming cash that the government could then use for expenditures. Correct?
A. That's correct. I'm not commenting on whether they are investing it at the right interest rate or anything like that. Q. Right. So the government gets this benefit from the cash
that the plaintiffs are claiming, if it spends the money. Is that correct? Or I guess one other possibility --
A. It doesn't borrow to maintain this minimal cash reserve to avoid the risk of overdraft.
Q. Right. It doesn't borrow for the sake of being able to walk around saying, I have five billion in my checking account. It's going to spend that money?
A. No. Let's -- I don't agree with that. My point is that if you have an extra $\$ 100$ million, that's $\$ 100$ million that you don't have to borrow to maintain that $\$ 5$ billion. Today it's \$5 billion, tomorrow it might be five and a half, I don't know, but to maintain whatever Treasury views as its appropriate minimum balance to avoid a risk of overdraft.
Q. Now, it's also possible, is it not, that the government could benefit from this sort of free-roaming cash by putting it in the bank itself and drawing interest, putting it, say, in a Federal Reserve account or in one of the banks it has a contract with? And that interest that it draws on those accounts would be a benefit as well. Correct?
A. Well, I think one of the reports that Mr. Levitas cited yesterday is one in which there's great discussion about what the federal government does in those times, even in a year in which there are substantial deficits, those times when you have revenues coming in that exceed outlays. And at those times the government uses basically three instruments for parking money
overnight and earning interest on those balances overnight.
MR. STEMPLEWICZ: Could we have Attachment A, please?
BY MR. STEMPLEWICZ:
Q. Could you please take a look at this screen, Mr. Miller, and tell me if you recognize this. I'll represent to you that this was the Attachment $A$ to the memorandum that the plaintiffs filed in support of their claim for restitution and disgorgement. Do you recall looking at that?
A. I've seen something that looks very similar, yes.
Q. If we could go to the very end of that, the last page, you see there on column $G$, the nominal benefit conferred, and the total is about $\$ 4.5$ billion? Do you see that?
A. I see that.
Q. What do you understand that to be?
A. I have not -- I was not retained to analyze this data.
Q. Okay. So as far as you're aware, there's no claim that there's 4.5 billion sitting in the Treasury somewhere, you know, sort of between the cushions that's available to be paid to the plaintiffs?
A. I'm not testifying to any particular amount.
Q. And likewise, all the way over on the right, the $\$ 58$ billion figure, that would be the same. Correct?
A. This table was prepared under certain assumptions on which I can not verify. I do not have requisite information to verify the numbers. I know generally what they have done here, and I
agree generally with the methodology that comes up with that accumulated benefit conferred column, but I can't comment on the actual data, the actual amounts, the net amounts that were retained by the government. I do not have that knowledge. Q. You indicated certain assumptions are behind this table. Do you vouch for any of those assumptions?
A. I vouch for the methodology, and that is whatever the delta was, whatever the net receipts were - that is, the receipts minus the outlays - that when you take that figure, which represents a figure that the federal government does not have to borrow, and add to that the interest, and then in the subsequent year you have the same figure, the principal plus the interest that you don't have to borrow, and so you're saving that plus the interest on that, and you continue that cycle through all the years, that adds up to whatever the avoided interest -- the avoided borrowing costs would be for that year. And then you add them over all the years, and that's what I understand that column in the right to be.

MR. STEMPLEWICZ: Can we go all the way back to the 1887 figure, the first page?

BY MR. STEMPLEWICZ:
Q. Again, we have this column $G$, the nominal benefit, appears to be the difference between the total revenues in $E$ and the total disbursements in column F. Correct?
A. I have not -- again, I was not asked to analyze these
tables, to affirm the computations contained in these tables, to confirm the assumptions made that underlie these tables, underlie these numbers. I can tell you that the methodology, as I have been told and represented to me, I believe is correct, and that was just what I described, sir.
Q. We talked about benefit conferred under this methodology. We're looking at a hypothetical borrowing. Correct? In other words, what hypothetically would take place if the government did not have this cash?
A. Let me see if $I$ can put it in my own words. Again, you take the net monies retained, and that represents money that the federal government does not have to borrow.
Q. Correct.
A. And you add to that the interest that would have been paid on that money that the government would have borrowed, and that is the cost -- that is the borrowing -- the savings for not having to borrow for that year.

Now, it's hypothetical in the sense that I guess you're estimating what would have been the case had the government not had the money, and compared it to the advantages, the benefits the government derives by having withheld that money. Q. In a way of analyzing it, you're pulling out that cash, and for purposes of the analysis assuming it's not there; what would then take place is what you would end up with a benefit, arriving at the benefit?
A. The benefit, the benefit is defined as what the government would have paid had they not retained the money, and the fact they didn't pay anything for it because they had the money. Q. So we have a borrowing of some kind that would have taken place. Correct?
A. Let me say it in my own words. If the government retains $\$ 100$ million that otherwise should have been disbursed to the individual Indians, that is money they do not have to borrow. Q. Now, if the government had borrowed, there would have been a principal - let's take your $\$ 100$ million example - and there would have been an interest rate, hypothetical interest rate, and a hypothetical maturity for that borrowing, as there would be with any debt instrument issued by the government. Correct?
A. I don't want to say it's hypothetical. We know what the 10-year borrowing rate was for the federal government for each of those years. Those are data that have been scrubbed and all that, and that's a good estimate of the borrowing costs for the government for that year. So it's not hypothetical.
Q. Well, it's hypothetical in the sense that it could have been any number of different rates, but somebody picked 10 to apply to this fictitious situation?
A. Not fictitious. The government withheld the money. Right?
Q. You're assuming the government withheld the money.
A. We're assuming the government withheld $\$ 100$ million. Had it not done so, it would have had to borrow on the open market that
$\$ 100$ million, and the cost of borrowing is approximated by that 10 -year rate.
Q. All right. Let me ask you this: If the government's benefit is measured by this borrowing, this sort of constructive borrowing, if you will, at a particular rate, at a particular maturity, why, then, would not the benefit to the government terminate when that hypothetical or constructive loan is paid off? If it's a 10-year instrument, why would the benefit continue on for 121 years if it's paid off in 10 years?
A. Because the government is still holding that cash.
Q. I see. So we're back again to 1887. We're up here, if you would look at Attachment $A$ on the screen, and that $\$ 179,000$ in column $G$ is never, ever, ever paid back to the Indians, it's held forever by the government?
A. Sir, what the data -- my understanding of the use of the data is as follows: You have a delta for '87, you have a delta for '88, you have a delta for '89. That is, withheld funds '87, withheld funds '88, '89, and so forth. Some of the ' 87 monies may be paid out in '88, but what you're looking at for the ' 88 number is the net; that is, the difference between income and outflow, how much came in in 1988 (sic) and how much was paid out. Some of the money paid out in ' 88 may have been due to the Indians from '87, but in '88 you still had a net withholding of monies belonging to the Indians.

That is my understanding. I cannot vouch for those
individual figures. As I indicated, I have not been retained to evaluate the veracity of these numbers.
Q. Well, again, you have testified that you're vouching for the methodology. Correct?
A. Yes.
Q. Now, let's assume that the methodology employed in this exhibit embodies an assumption that this 30 percent from 1887, 1888, 1889, 1890, and so forth is never disbursed to the individual Indians. You think that's a reasonable assumption, based on your experience as director of OMB ?
A. I think you're mixing two things. As I indicated, you could have monies owed the Indians that is withheld in 1887, some of which is paid back in '88, some of which is paid back in '89, and so forth. It doesn't matter, because what you're looking at for the figure of 1888 is the net; that is, the revenues that come in minus the revenues that are going out, some of which would be to pay Indians for 1888, some to pay Indians for 1887. And through the years, the same way.

Now, the assumption, I understand - and I can't vouch for it, because, you know, I haven't rigorously evaluated this data - is that the 70 percent figure is an assumption based on some evidence that I haven't reviewed, that whatever the revenues coming in in a given year, the outlays, outlays which included payments to Indians for previous years as well as the current year, was 30 percent -- there was a 30 percent
difference.
Q. All right. So your testimony would be that if there's an assumption that this 30 percent year to year to year just never gets paid, that would not be a reasonable assumption?
A. I didn't say that at all. I think it is quite reasonable. Again, based on the data $I$ haven't reviewed, $I$ mean, if the data is supportive of that assumption -- your point, sir, is very well taken; that is to say that monies owed to Indians in 1887 might be paid, or some of it be paid in subsequent years. But that doesn't vitiate this notion that at each subsequent year there's a shortfall.

What you're looking at is the shortfall, and the fact that an 1887 outlay occurs in 1888 doesn't eliminate the shortfall, doesn't eliminate the benefit throughout all the years that the federal government, the taxpayer, the U.S. government, the United States of America is gaining throughout the whole period of time.
Q. All right. Let's look at 2007 again, the last page of this. There we see, if we could focus in on the top half of that document, over to the right a little bit, again, the year 2007 is the last year before the totals, and the difference between total revenues, which is 336.68 million, and total disbursements, 235.07 million, do you see that in columns E and F?
A. Yes.
Q. So that comes up with this nominal benefit of 101 million. That's roughly your example of $\$ 100$ million net that's withheld that year?
A. For that year.
Q. Right.
A. As I understand the table. I did not prepare the table, I do not vouch for the numbers there, I do not -- I haven't reviewed that carefully, and again, I haven't analyzed the table. But it appears that that's the case.
Q. And again, the benefit is the application of an interest rate to that amount?
A. Well the benefit is the amount they've withheld, plus the interest on that amount that looks like the 10-year Treasury rate of 6.22 percent.
Q. In making that calculation, wouldn't you want to know the relative weight of this $\$ 101$ million to total government receipts?
A. No.
Q. Let's show the Treasury tables.

MR. STEMPLEWICZ: Your Honor, this is going to be marked as defense exhibit next in order 482. If we could go to the second page of this document.

BY MR. STEMPLEWICZ:
Q. Have you ever looked at one of these --
A. I've looked in my career at many, many tables.
Q. You did not look --
A. Pardon?
Q. You did not look at this particular document or recent Treasury data in preparing your testimony?
A. Oh, I've seen -- from time to time on the computer I have -on the Internet I have pulled up Treasury charts. I don't recall this particular one.
Q. If we can look at the bottom, say, third of this exhibit where it talks about fiscal year 2007, and you see there at the bottom there, total receipts, total receipts of the
U.S. government for 2007?
A. Yes, sir.
Q. Do you see that number in millions?
A. That's 2,567,671,000,000.
Q. All right. You think that's fair to ignore this figure in coming up with a calculation of whether benefit was conferred?
A. I think it's perfectly reasonable to ignore that total revenue figure.

MR. LEVITAS: Your Honor, I may be premature in entering this objection, and if so, I apologize. But it seems to me that Mr. Stemplewicz is really impeaching his own witness, Mr. Gregg. And since they are not able to impeach Mr. Gregg because he is the government's witness who testified under oath, it's inappropriate for the question to be whether or not you should ignore the receipts of the United States.

Mr. Gregg clearly testified, as was demonstrated yesterday --

THE COURT: Counsel, this is a long speaking objection.
MR. LEVITAS: Sorry, Your Honor.

THE COURT: The objection is what?
MR. LEVITAS: That this line of questioning tends to impeach the government's own witness, and that's --

THE COURT: Well, that's an interesting idea, but I'm going to overrule it until I find out what the government's witness is going to testify about.

Proceed, Mr. Stemplewicz.
BY MR. STEMPLEWICZ:
Q. Mr. Miller, you testified yesterday that the government targets, and $I$ think you said again today, a $\$ 5$ billion balance in the TGA. Correct?
A. That's contained in this report of September of 2007 .

That's the most recent. And the number can change from time to time.
Q. Do you happen to have any idea of the weekly amount that goes through the TGA?
A. Probably about $\$ 10$ billion -- excuse me. Weekly, multiply that by five working days, $\$ 50$ billion.
Q. If it was $\$ 300$ billion, that wouldn't be out of the realm of possibilities?
A. Some days, some weeks it comes in at big amounts, and
sometimes it comes in at little amounts, as if you will look at that chart that $I$ think Congressman Levitas raised yesterday in asking me questions.
Q. Have you ever heard the expression CIHO? And I don't mean the $K-E-H-O-E$ variety, but the $C-I-H-O$ variety.
A. No, I don't recall.
Q. What about what it means spelled out, Cash Investment Held Outside, does that term mean anything to you?
A. No, I don't recall it.
Q. If we assume that some of the Individual Indian Money was held in banks outside the Treasury, particularly in the early years of the system, would the government have any benefit from that cash?
A. Yes, it would.
Q. And how so?
A. Well, it still belongs to the government, it is still part of their reserves, it's still part of the asset base, it's still part of what they could reach if needed, in the same way that you have to have balances to avoid the possibility of overdraft. Now, you might not reach it quite as quickly, but it's still an asset base.

I mean, my understanding, and part of my reading was to understand what this case was about, is that supervisors would place these monies in accounts, but the money didn't belong to the supervisor, it belonged to the United States of America.
Q. What if the Treasury said that we don't consider cash held outside as available to us in making our borrowing decisions? Assuming that's the case, would your testimony be that the government does not benefit in that event?
A. Well, I would have to look at the context in which such a statement was made. Because the government can always reach in and transform assets into cash. I would just have to look at it, at what they said.
Q. Do you have any opinion or idea, based on your knowledge of government finances, that if as a result of a judgment of this court the government had to pay a sum of money to the plaintiffs, where that money would come from?
A. Do I have an idea?
Q. Yes.
A. It would come from taxpayer and also from borrowing.
Q. But what cash in the government, what fund in the government would provide the wherewithal to make that payment, do you know?
A. Well, I don't know what the name of the account would be, but the cash -- the burden for paying would ultimately be borne by taxpayer and from borrowing, which in a real sense burdens future generations, burdens taxpayers eventually.
Q. I see. But as far as mechanically -- aside from conceptually, but mechanically, you don't know how that would be accomplished?
A. I wouldn't propose here to write the order to the federal
government to pay whatever the judge decides is the appropriate amount.
Q. You talked about the Troika, the Director of OMB, Secretary of Treasury, Chairman of Council of Economic Advisors. Correct? A. Yes.
Q. When they meet, they really don't get down into the details, the numbers, do they?
A. Well, you get into the aggregate numbers. And the Troika meets -- I mean, a lot of the discussion is what is the employment rate likely to be, what are interest rates likely to be, what is this, that, and the other. All of this affects total receipts to the government, the forecast of total receipts, forecast of total outlays, especially for entitlement spending, and the derivative total debt -- excuse me, the total deficit that would be run for that year.

I don't want to give the impression that's all we sat and talked about. We talked about that and we talked about other economic policy issues as well. But in terms of talking about what you just raised, it was at a very aggregate level. We didn't sit down and talk about cash management from day to day, week to week.
Q. Right. It was at a high level. It was not, gee, how many billions do we need to borrow this week to have five billion in the TGA?
A. That's correct. Though our staff did interact on those more
micro matters.
Q. Would you say that the debt management function that's performed by the staff is a very complicated process?
A. It's not all that complicated. It is labor intensive, because you've got to make a lot of decisions every day; there's advisory groups that give advice, and, you know, whether you go long, go short, these kinds of things.

So I don't want to oversimplify it, because it's quite labor intensive, but it's -- on the other hand, it's not beyond understanding the basic principles.
Q. I think you testified that the Financial Management Service, FMS, makes the borrowing decisions.
A. Well, they interact with the Bureau of Public Debt in deciding where to go, and they each have their advisors. They both report to an assistant secretary for finance, for domestic finance, and up to an undersecretary and the secretary, et cetera.

So, I mean, sort of a similar way of thinking; FMS sort of sets the overall parameters and the Bureau of Public Debt sort of carries it out.
Q. For example, former Commissioner Gregg, whose testimony we looked at, he was the former commissioner of FMS. He wouldn't do the sign-off, he wouldn't be the decisionmaker on how much to borrow?
A. Well, he was a particularly good witness because he had been
head of both bureaus. He had been head of Public Debt, commissioner of Public Debt, commissioner of FMS.
Q. But as commissioner of FMS, he did not make the decisions, or you're not sure?
A. I'm not sure of the details, but basically the two interact.
Q. So you don't know whether there's a specific committee that meets or what the number of members of that committee would be, would you?
A. I don't know those details, and it changes from administration to administration, I suspect.
Q. Would you assume that the people who make the decisions are highly qualified to do that?
A. Yes. They're very high level professionals in Treasury, is my experience.
Q. What sort of things do they look at, would you expect, from your experience, in making the determination of what amount to borrow would be?
A. Well, what takes up the majority of their time, I would presume, is the fluctuations from day to day and how to make decisions about parking money overnight or not parking money overnight, or looking down the road a few days and having to borrow, and they issue these various bills and bonds. I mean, it's more tactical -- what occupies their time is more tactical than strategic.
Q. Do you know what the sort of big ticket items they look at
on the receipts side would be?
A. Individual income tax returns, corporate income tax returns, excise tax returns, obviously Social Security monies withheld, and Medicare/Medicaid.

MR. STEMPLEWICZ: Could we have that exhibit again, $I$ think it's 487, the Treasury tables? And if we could go to the fifth page, please.

BY MR. STEMPLEWICZ:
Q. All right. We're going to try to expand the top portion, which is budget receipts, and if we could look a little bit over to the left and get that far left side in there.

And you see there up on the top portion, budget receipts, and those are the kinds of categories you were talking about?
A. Yes.
Q. Now, obviously there's no category there for Individual Indian Monies. Correct?
A. Well, I presume it comes under miscellaneous receipts down at the bottom. There's no category for Individual Indian Monies.
Q. You're assuming it, but you don't know for sure whether it falls under miscellaneous receipts?
A. I'm assuming that. Yes, go ahead.
Q. Do you know what phrase is used to describe the United States Treasury's debt management strategy? I mean, you've
given some description about the kinds of considerations that are employed in making decisions, but have you ever heard of a specific phrase that's used to describe that process?
A. I don't recall a specific phrase.
Q. Do you ever read the Federal Reserve Bank of New York's Economic Policy Review?
A. I have read pieces from it in the past, but very, very sparse review of that.
Q. All right. But you didn't do any research into that debt management strategy before testifying in this case. Correct? A. No. That's correct. Excuse me.
Q. Do you know whether the government ever borrows more than it has to borrow to meet its cash needs?
A. I'm sure it does in an ex post sense; that is to say that it may borrow money and then it finds out that revenues come in greater than anticipated, outlays come in less than anticipated. So after the fact you would say, well, we borrowed more than we had to.

But ex ante, that is to say at the forecast level, I would be surprised if the government purposely borrowed more than it needed.
Q. Well, let's take April, when income tax receipts are coming in, and the government -- let's assume that is the most flush with cash throughout the year that the government is. And further assume that the government does continue to borrow even
though it has very high levels of cash.
Do you have any concept of why the government would do
that?
A. Well, I mean, the government may make -- could make an informed decision that this is a good time to go in the market and secure -- to borrow. Even though we're flush right now, we may place some money in overnight. It's conceivable, conceivable. I haven't reviewed the data, that you might even find situations where the short-term return to excess cash balances by parking them overnight exceeds the cost of borrowing at the margin. And in that situation it would make sense to go ahead and borrow.

But that would be a fact-based question, or to answer that question $I$ would have to know facts.
Q. Conceivably one of the reasons could be that there's a bargain to be had here, and it's better to pay a little bit now to save a lot later. Is that reasonable to hypothesize?
A. I think there would be rare instances. I mean, such instances would be -- I responded to your question by saying yes, I could see a situation in which that might occur. It's probably fairly rare that that kind of situation would occur, but it could occur.
Q. When you were director of $O M B$, did you have any interface with major money market centers, the big banks, Bank of America, Chase, and those sorts who buy government securities?
A. I did not make presentations, to my recollection. I made a lot of presentations where people who are in that market were there, but $I$ didn't go hand in hand to such brokers and people who purchased government debt, plead with them or anything like that.
Q. Have you ever looked into the expectations of these money market centers in regard to the debt issuances of the United States Treasury?
A. Sir, in my tenure as budget director and my many years of teaching economics, I read a lot of things like that. But I don't recall and $I$ don't hold myself out as an expert on expectations about lending and about government debt finance. Q. Is there any bigger borrower in the United States in the money markets than the United States Treasury?
A. No.
Q. And that's pretty much by a long shot, isn't it?
A. Yes.
Q. Do you know what minimum increment the government borrows at?
A. I don't know the minimum increment.
Q. I mean, would they say, we're not getting this 100 million this year from the individual Indians, so we have to go out and borrow another 100 million? They wouldn't do that, as far as you know, or you don't know?
A. Implicitly, yes. I mean, they don't write down, hey, we got

100 million from the Indians this year so we don't go borrow that. I mean, they know what cash is on hand in the TGA, and they make decisions about borrowing based on expectations about outlays and avoiding overdraft, having overdraft protection and so forth.
Q. On a weekly basis, that 100 million that's in the table we looked at would be roughly two million. Correct?
A. Pardon?
Q. On a weekly basis, that annual 100 million of net receipts comes to about two million, more or less?
A. Yeah, 100 divided by 56.
Q. So to the extent there's an impact, these money managers would say, well, we have another two million coming in from IIM, so we don't need to borrow X amount, you wouldn't know how that comes into the decision-making process?
A. I mean, it all goes in the fund, and they look at the total of the fund and expectations about outlays. So they don't segregate out, well, here's two million and here's something we count or we don't count.
Q. What borrowing decisions, if any, were you personally involved in in your tenure as OMB director?
A. I was not engaged in the tactics and the daily borrowing decisions and marketing of securities and so forth. That was not my role.
Q. And as I understand it, for the same reason, your knowledge
in this area wouldn't extend back 100 years before you were OMB director?
A. Hardly. Nothing more than what I read.
Q. Is your opinion that you provided to the Court in your testimony yesterday based on anything other than an endorsement of former Commissioner Gregg's testimony from 1999?
A. I'm not sure I understand the question. I read

Commissioner Gregg's testimony, I've read the GAO reports and others. I draw on my own personal experience at OMB, my own personal experience when $I$ was on the Council of Economic Advisors, my own personal experience when $I$ was teaching economics at university level and graduate students and so forth. I mean, my expertise is broader than just having read Commissioner Gregg's testimony.
Q. Do you remember in Commissioner Gregg's testimony that he described the Individual Indian Monies as a deposit fund?
A. I think he used that term at some point.
Q. Okay. Do you have any idea of -- I think you say one of the things you looked at in preparing your testimony was OMB Circular A-11, that thousand-or-so-page publication?
A. Right.
Q. Do you recall anything in there about deposit funds and how they're defined?
A. Yes. And I'm not sure that Commissioner Gregg didn't misspeak there, or whether he was using the term in a generic
way. I just know the money goes into the TGA, and what they look at is the base.

It's like trying to distinguish between a checking account that belongs to Mary Smith and one that belongs to Sam Jones. On the other side of the teller's window, the money is all fungible and intermingled.

MR. STEMPLEWICZ: Could we have Circular A-11?
Your Honor, the exhibit next in order is an excerpt.
It's Section 20, actually, from OMB Circular A-11 that Mr. Miller testified about.

BY MR. STEMPLEWICZ:
Q. I'll represent to you this is not the entire thousand-page document.
A. Okay.
Q. But we don't need the rest of it, at least right now.

MR. STEMPLEWICZ: Could we go to page 39, please.
BY MR. STEMPLEWICZ:
Q. You see the highlighted part there, the discussion of deposit funds. You see where it says, "You use deposit funds to account for monies that do not belong to the government. This includes monies held temporarily by the government until ownership is determined, such as earnest money paid by bidders for mineral leases, or held by the government as an agent for others." Do you see that?
A. Yes.
Q. And a little further down it says, about the fifth line down, "We exclude deposit fund transactions, as such, from the budget totals because the funds are not owned by the government."
A. Yes, I see that.
Q. You see that.

MR. STEMPLEWICZ: If we could go back two pages to 37. I've thrown a little curve to our technical fellow here, so it may take a minute or so.

BY MR. STEMPLEWICZ:
Q. But if you recall, the deposit fund that Commissioner Gregg -- former Commissioner Gregg testified about was 14X-6039. The last four digits were 6039. And up on the screen is another page from Circular $A-11$-- and by the way, these circulars were published under the organization that you headed. You have some at least general knowledge of what subjects they covered.

And obviously to get into all the details after many years, I don't expect you to know, but certainly you can look at the bottom category there of deposit funds, and you see where it says the 6000 through 6999 series is used to record deposits and disbursements of monies not owned by the government or not donated to the government.

So wouldn't that seem to indicate that if $14 X-6039$ is the account we're looking at here, that it is, in fact, as former Commissioner Gregg said, a deposit fund?

MR. LEVITAS: Your Honor, I'm going to renew the objection I made before about impeaching his own witness.

MR. STEMPLEWICZ: Your Honor, I'm not impeaching the witness, $I$ 'm just confirming what he said.

MR. LEVITAS: If I can complete my statement and objection. Commissioner Gregg testified that --

MR. KIRSCHMAN: Your Honor, the record speaks for itself. This is a speaking objection.

THE COURT: Wait, wait, wait. This is not a tag team here. Mr. Stemplewicz will speak for the government while he's up.

MR. LEVITAS: Your Honor, Mr. Gregg testified that the IIM money, the deposit fund which Dr. Miller says may have been misidentified, is part of the Treasury, and goes into the general account, and it's not treated any differently from any of the other 1,200 accounts in the Treasury General Account.

And trying to suggest that it is a different -- being treated differently goes directly against what Commissioner Gregg testified to.

THE COURT: Well, Commissioner Gregg's testimony is not before me. I don't know whether he's impeaching or disagreeing or undercutting or whatever he's doing, but your objection is overruled.

Proceed, Mr. Stemplewicz.
BY MR. STEMPLEWICZ:
Q. Picking up on this idea of the budget that was mentioned in your testimony yesterday, and also was mentioned in the definition of deposit funds, you said that one of your major roles as director of $O M B$ was to translate the President's policy into a budget. Does that pretty much sum it up?
A. Yes.
Q. In doing so, did you rely upon data provided by the Treasury Department?
A. Yes. And other agencies as well.
Q. Did you have any reason to question the reliability of the data you received from Treasury?
A. No specific reason to question any specific data. I would question analyses from time to time, but Treasury is very good about its data, from my experience at the time.
Q. Do you know what the term "operating cash" refers to in government financial parlance?
A. There's so many definitions, and so many of these definitions are loosey-goosey and used by different people to mean different things. I wouldn't want to comment on that. Q. What was your role as $O M B$ director with regard to legislation? How did you interface with the Congress in that regard?
A. Well, at the time, which I understand is not the prevalent mode or not the exact same mode today, the statement of administration positions on legislation all went through my
hands; that is to say, the OMB director's signed letters, they were signed by an auto pen, but basically sending up the Administration's position on major legislation, whether it was to a subcommittee, a full committee, to either house or to the joint committee or whatever, votes on the floor of each house. So there was that interaction.

There was interaction especially with the budget committee and appropriations committee, and the Ways and Means of the House Finance Committee in the Senate, where I went up and my associates went up and met with members of Congress and with their staffs trying to work out details of budget matters and appropriations and changes in these so-called mandatory spending programs, and also in taxes.
Q. Aside from budget type legislation, other kinds of legislation, would you be concerned in your role as OMB director that such legislation was consistent with the policies of the Administration?
A. Oh, yes. I mean, our goal was to secure legislation comporting with the President 's policies. From time to time we would recognize that some policy the President was pursuing would not sell on Capitol Hill, so we would compromise or we would take a different approach or something like that. We had authority to make those initiatives. Cabinet members, the Secretary of Treasury in particular, especially on the tax side, we would try to negotiate those matters out.
Q. And if some proposed legislation emanated from a Congress rather than the Administration, again, this would be a policy of the Congress that's being proposed to be enacted into law. Correct?
A. Yes.
Q. So there would be sort of this confluence of legislative policy, executive policy. Correct?
A. Well, let me see if $I$ can put it in my words. The President would propose legislation, sometimes explicitly, most of the time implicitly, in the budget proposals that he sent to the Congress at the first of every year for the fiscal year beginning October 1 st of that year, and then Congress -- you know, members of Congress would introduce bills. And those were typically ignored unless the relevant committee took them up and looked like they might move forward on some legislation.

And at that point the Administration would be usually asked for its views, members of the committee or the chairman, ranking member of the committee would ask the President for the Administration's views, or ask the budget director or ask the Secretary of Commerce or whomever it might have dealt with most specifically. But even those would go through OMB to coordinate the Administration's views on proposed legislation.
Q. Now, are you familiar with the 1994 American Indian Trust Fund Management Reform Act?
A. I read something about it. I am not an expert on that act.
Q. That was not during your tenure. Correct?
A. That's correct.
Q. You were sitting in the courtroom yesterday when some provisions of that act were put up on the screen dealing with the requirement in that act to invest Individual Indian Monies?
A. I recall something to that effect. I did not have my glasses, sir, with me, and I couldn't read what was on the screen.
Q. Well, how about in hearing what was said by Professor Laycock in regard to Professor Langbein's testimony, when he discussed statutes as being in effect the trust instrument for the Indian Trust? Do you recall hearing that?
A. I recall discussion about legal principles on which $I$ would not opine.
Q. Now, based on the experience you had as OMB director, what would you expect the kinds of considerations would be to go into whether the President would agree to sign legislation requiring the Secretary of the Interior to invest Individual Indian Monies? Any ideas, based on your experience, how that would proceed?
A. Well, let me not comment on this particular piece of legislation, but generically, if the legislation is of really -of key importance to the President, it may be something relatively small in the scope of things but something the President is particularly interested in; it may be something
that has big money effects, it may be something that has effects down the road. For whatever reason the President might have particular interest in it, the Administration's policy is whatever the President says.

On the other hand, if it's an issue which doesn't rise to the level of the President's direct personal involvement, there will be views expressed by the various agencies, and OMB's role was at that time -- not necessarily now. It's a little bit different, I understand. But at that time was to get the parties together and discuss the issues and resolve them in some way.

And if they couldn't be resolved, to raise it to a higher level; that is, typically it would be the Economic Policy Council, which was a group of cabinet officers, or the Domestic Policy Council, or the National Security Council for discussion and resolution. And if there was a lack of resolution there, or very strong views to the contrary, raise it directly with the President.
Q. Just a few final thoughts here, Mr. Miller. Assume that a superintendent of an agency, of the Bureau of Indian Affairs, decided that it would be a good idea to pay interest on Individual Indian Money that's held, and started doing that, started cutting checks to that effect. Without legislation, would that individual be authorized to do that?
A. Well, I don't think an agency head could do that unless
there were authorizing legislation of some kind. But I'm not -I don't know what the law is, I don't know what the relevant statutes are, so -- but just generically, no one in the federal government is empowered to write checks to people unless they have authority of some kind.

MR. STEMPLEWICZ: No further questions, Your Honor. MR. LEVITAS: Your Honor, I have some questions on redirect.

THE COURT: All right, sir.

## REDIRECT EXAMINATION

BY MR. LEVITAS:
Q. First of all, Dr. Miller, I wanted to follow up on a few specific points that were brought out in your discussion just now. One of them relates to questions about the 10-year Treasury bill. Do you know whether the interest rate on the 10-year Treasury bill is considered at the high end or the low end of the spectrum of interest-bearing securities?
A. It tends to be more in the middle. You have a so-called yield curve; that is, the short run versus long run, et cetera, sometimes it goes up this way, sometimes it goes this way, talking about being regular, inverted, or whatever. But for a long period of time, a 10-year bond rate is a good approximation of the cost of borrowing.
Q. Would you consider the 10 -year bond rate a reasonable measure to assume in the type of calculation that you were
looking at?
A. Yes.
Q. The questions relating to deposit of funds in commercial banks, of IIM funds in commercial banks, were those funds available to the Treasury Department or did they belong to some third party?
A. Well, they belong -- I mean, I guess it would be a case of fraud if they were claimed by an individual rather than the federal government, because they're not individuals' money, they're federal government's money.
Q. So they are, then, available, when wanted, by the Treasury Department?
A. Yes.
Q. Let me ask you another question. You were asked about the appropriation necessary to expend funds from the Treasury, and you commented that there are some appropriations which are permanent in nature. Is that correct?
A. Yes.
Q. Are you familiar with an appropriation which is a permanent and indefinite appropriation known as the judgment fund?
A. I'm not familiar with it. I mean, I have no expertise on that.
Q. The deposit account that was referred to, do you know whether the government has accounted for all IIM monies in the deposit account?
A. I have not made a study of this. I couldn't comment with an informed judgment about it.
Q. When Mr. Gregg, Commissioner Gregg, testified that the IIM funds which were held in the Treasury were treated no differently than any other funds in that account --
A. Right.
Q. -- what does that mean?
A. Well, I mean, there's a constant confusion over what is an account and what is money. Okay? It's like I have a deposit in the PNC bank, you have a deposit in the PNC bank, and we keep talking about our accounts, you know, but the money behind the teller's window is fungible.

So Commissioner Gregg, when he talked about maybe the trust account, he's talking about whose name is on this account, but the money is behind the teller's window and it's all fungible. It's all there, it's all accessible, it's all what the government takes into account in deciding -- making borrowing decisions.

MR. LEVITAS: I would ask that the final monthly Treasury statement be displayed, please, that Mr. Stemplewicz had asked us to look at. And would you go to page 30 in that report, please.

BY MR. LEVITAS:
Q. And if you would look at that, Dr. Miller, and in particular the left-hand column called receipts and the items that are
included in those calculations, you see where there are a list of government trust funds identified?
A. Yes, sir.
Q. All right. And would you look down to the last item in that listing of the funds identified there, all other trusts?
A. Yes, sir.
Q. All other trusts?
A. Yes, sir.
Q. Now, do you know one way or the other whether that includes
the IIM trust funds as well?
A. No, I do not.
Q. And the fact that the IIM trust funds are not otherwise identified in that list does not mean it is not included in that last category?
A. Absolutely.
Q. Okay. Now, again, I want to get back to what you testified to yesterday and what you agreed with in Commissioner Gregg's testimony, that funds collected by the government on behalf of the IIM Trust beneficiaries which were not otherwise disbursed, and remain in the Treasury, constitutes a significant and quantifiable benefit to the government.
A. That's correct.
Q. And that is still your testimony?
A. It is.

MR. LEVITAS: Thank you, Your Honor. I have no further
questions.
THE COURT: Dr. Miller, just to make sure that I understand some of your testimony, the last question and answer summarizes, it seems to me, your testimony, which is essentially that any money that has not been disbursed to Individual Indian Money accountholders is in the TGA and is a benefit to the government, and the methodology applied by the plaintiffs of applying an interest rate to it that the government would have had to borrow money is a proper methodology. Right?

THE WITNESS: That's correct, sir.
THE COURT: Okay. But you are not sure and don't know whether investments made with IIM funds, if any, are what one of the lawyers, I guess Mr. Stemplewicz, called free-roaming cash, you don't know if that money is in the TGA and should be used, should be calculated the same way?

THE WITNESS: Well, sir, my understanding is that the monies were either put directly in the TGA or they were in commercial banks, but they were still owned by the federal government and still accessible by the federal government. And because of that, they would be considered in the decision to borrow, and for that reason, monies withheld, whether they're in the -- and I don't know how much was held in commercial banks as opposed to the TGA, but monies held in commercial banks, like monies directly in Treasury's TGA, would be considered in decisions about borrowing.

And so in either case, the money would be of benefit to the federal government.

THE COURT: And is it your testimony that money that is on deposit in commercial banks, which you say is available to the government when it wants it, is in fact taken into account when the day-to-day borrowing decisions are made?

THE WITNESS: I believe so.
THE COURT: What is the basis of that belief?
THE WITNESS: Because the federal government could pull those funds back into the TGA to cover checks that it is issuing.

THE COURT: Well, let's assume that it could. My question to you is whether you know as a matter of fact, either by your own personal knowledge or because of your expertise, that when the government makes those day-to-day borrowing decisions that you've been talking about, they in fact do include in the calculus money that is on deposit in commercial banks.

THE WITNESS: Good question, judge. I do not have that knowledge, personal knowledge of that. It seems very reasonable that they would be considered, but I do not have such personal knowledge.

THE COURT: All right. And the same basic question applies to this discussion of deposit funds that we've had. You say there's a difference between funds and accounts. Do you
know, either of your own personal knowledge or based on your expertise, that when the government makes those day-to-day borrowing decisions that you're talking about, that in fact they include money that is in deposit funds like this $14 \mathrm{X}-6039$ when they're deciding how much money they have on hand?

THE WITNESS: I haven't -- Your Honor, I haven't talked with the people who make these day-to-day decisions. I haven't been involved with the tactics, as I've described. I was more at a strategic level.

THE COURT: But again, it sounds reasonable?
THE WITNESS: It sounds very reasonable. In fact, monies that come in, the people who are looking and making these daily decisions recognize, well, you've got to pay Social Security checks -- I mean, a lot of the monies that come in in a sense are owned by other people, or they're already spoken for, and so you're looking at this total volume of funds that are available and making the decisions about how much you need to borrow. I mean, they're day-to-day decisions about how much to borrow, and if you have extra, then you don't have to borrow that.

THE COURT: It would be fair to say, then, Dr. Miller, that your testimony is sound theoretically, it's sound economics, it's sound common sense, but you don't have any personal knowledge of the mechanics of how these day-to-day decisions are made?

THE WITNESS: I do not have such personal knowledge,
no.
THE COURT: Thank you, sir.
MR. STEMPLEWICZ: I have a very short recross based on Mr. Levitas' questions.

Could we please go back to Circular A-11? If we could go again to page 39, where we were talking about deposit funds.

## RECROSS-EXAMINATION

BY MR. STEMPLEWICZ:
Q. You remember, Dr. Miller, when we talked about deposit funds in this definition. Now, if we went back one page to page 38 --

MR. STEMPLEWICZ: And by the way, Your Honor, this will be Defense Exhibit 483.

BY MR. STEMPLEWICZ:
Q. You see down there at the bottom, trust funds is defined?
A. Well, there's a heading that says "trust funds."
Q. Right. Now, would you think that something could be both a trust fund and a deposit fund, or you don't know?
A. They're probably categorized differently, yes, whether it's one or the other.
Q. And the table that Mr. Levitas showed you from here, I think it was Table 8 from the Treasury monthly statement, talked about trust funds, not deposit funds. Correct?
A. I don't recall. I accept, subject to check, although I know these terms, "trust funds," are used very generically as well as
in very specific ways.
Q. All right.

MR. STEMPLEWICZ: No further questions, Your Honor.
I'm sorry, Your Honor, I misspoke. This is not 483, this is already previously marked as 466. And we would move for the admission at this time of Defendant's Exhibit 466, which is Circular A-11, and Defendant's Exhibit 487, which is the final monthly Treasury statement.

MR. LEVITAS: Your Honor, we would like that entire document.

MR. STEMPLEWICZ: Entire Circular A-11 is available on the Internet at the OMB website.

THE COURT: That's the new world we're operating in.
MR. LEVITAS: I gather that.
THE COURT: You'll get it.
(DEFENDANT Exhibits 466, 487 were moved into evidence.)
MR. LEVITAS: Your Honor, I have one last question in
light of a question on recross.
THE COURT: All right. Go ahead.
FURTHER REDIRECT EXAMINATION
BY MR. LEVITAS:
Q. I would request that the testimony of Commissioner Gregg be displayed, and page 3310.

THE COURT: Who are you requesting that of?
MR. LEVITAS: Antonio.

THE COURT: Then I think it will probably happen. MR. LEVITAS: I hope so.

BY MR. LEVITAS:
Q. Now, Dr. Miller, let's see, 3310, lines eight through 24. Based on your reading of Commissioner Gregg's testimony, does it appear that the deposit fund account which he has referred to is any different from any of the other accounts held by the Treasury?
A. No, he's saying --

MR. STEMPLEWICZ: Objection. Speculation.
THE COURT: Yeah, I'm not sure that Dr. Miller's analysis of somebody else's testimony is of much help to me, counsel. I mean, the other testimony is what it is, but I -MR. LEVITAS: I wanted to make sure that Dr. Miller agreed with the conclusion that Commissioner Gregg reached, because Commissioner Gregg says there's nothing unusual about these deposit funds account; they're treated the same way in the Treasury as any other account. If he doesn't agree with that, then I would like to know it. If he does, I would like to know it.

THE COURT: I think he just told me that he doesn't know mechanically how these deposit accounts are used. If you want to pursue that question, you can, but it seems to me he's already basically disclaimed expertise on the subject.

THE WITNESS: Your Honor, with due respect, I think I
do have some confidence that the money goes into the Treasury, it's labeled this account. But it's like, again, at your commercial bank you have an account, but the money goes in the back and it's commingled. I think that's what he's saying there, I think.

THE COURT: And you think that what he's saying is correct?

THE WITNESS: I do.
THE COURT: But you still don't have any personal knowledge of exactly how the borrowing decisions are made, and whether the money that's in these accounts are used when the borrowing decisions are made?

THE WITNESS: Your Honor, I haven't been in that office and observed the meetings that take place, the descriptions. I have recalled from being at OMB, consistent with things that I have read in preparation for this trial, and so it's all consistent with that, but $I$ have not sat in such tactical meetings and participated.

THE COURT: Can you answer this question, which also comes from a sort of high level of generality about this process? You're talking about the day-to-day borrowing decisions of the Treasury Department. Right?

THE WITNESS: Well, sir --
THE COURT: Every day somebody -- I mean, and I'm sure this does happen every single day.

THE WITNESS: Right.
THE COURT: Somebody looks at the situation and says, we're going to have to issue so many bonds or we're going to have to go to the market for so many dollars, and we're going to do it this Monday or next Tuesday or something like that. Right?

THE WITNESS: Uh-huh. Yes, sir.
THE COURT: Can you tell me whether that decision is based on the amount of money that's in the pot today or on the amount of money that's in the pot today plus expected disbursements and revenues?

THE WITNESS: It's based -- I mean, a decision to go to the markets next week would be based on forecasts of what disbursements would be, what revenues would be, what the needs would be next week. At a strategic level you're looking forward, and the further in the future that you look, the more you might characterize the policy as strategic policy rather than tactical.

The persons making the decision every day are really almost going through an algorithm, a very routine kind of thing, and deciding how much to be proffered at the next offering.

THE COURT: A routine but complicated algorithm?
THE WITNESS: Yes, sir.
THE COURT: And one that nobody in this courtroom actually knows?

THE WITNESS: But again, it's the difference between tactics and strategy. The tactics are designed to meet the needs of the government, and those needs are predicated on how much -- what kind of balances the federal government should have. That's one reason that in these publications they make the rather sweeping statement that we target $\$ 5$ billion as a balance to assure -- to ensure against overdraft. Now, that's their strategic -- how to get there is what these people do every day in making sure that they can cover that -- that the federal government maintains that kind of balance.

THE COURT: Thank you, sir.

MR. LEVITAS: Thank you, Your Honor.

THE COURT: All right, Dr. Miller. I think that concludes your testimony. You're excused, sir.

THE WITNESS: Thank you.

MR. GINGOLD: Your Honor, plaintiffs call Dr. Bradford

Cornell.
(Oath administered by Courtroom Deputy.)
MR. GINGOLD: Your Honor, I have Dr. Cornell's CV.
Would you like a hard copy?
THE COURT: Yes, please. Hand it up.
MR. GINGOLD: Your Honor, plaintiffs are proffering Dr. Cornell as an expert in financial economics and statistics. He has a fairly lengthy CV, so I'll summarize it.

His academic background is an $A B$ from Stanford

University, an interdepartmental AB in physics, philosophy, and psychology. He earned that degree in 1970 and he was phi beta kappa. He earned an MS in statistics from Stanford in 1974, and he earned his Ph.D. in financial economics at Stanford in 1975. He is a senior consultant with CRA, and he is a visiting professor at California Institute of Technology in financial economics.

He is recognized internationally as an academic in financial economics, and he is a consultant in that field. He has been twice chairman of the finance department at UCLA, twice chairman of the Andersen School at UCLA, three-time member of the staffing and promotion committee at UCLA.

He has written many books, articles, and he's provided many lectures with regard to financial economics, and he has developed many models with regard to the issues that are associated with the Cobell case. He has developed both damages models and restitution models.

Your Honor, we would like to proffer Mr. Cornell as an expert, and he will be able to speak to the model that establishes plaintiffs' belief of the award that is appropriate under the circumstances in this case.

MR. WARSHAWSKY: We have no objection, Your Honor.

THE COURT: All right. He's certainly well qualified. You may proceed.

MR. GINGOLD: Thank you, Your Honor.
(DR. BRADFORD CORNELL, PLAINTIFF witness, having been duly sworn, testified as follows:)

DIRECT EXAMINATION

BY MR. GINGOLD:
Q. Dr. Cornell, or Professor Cornell, what is the purpose of your testimony in this matter?
A. To develop a restitution economic model that can be used in conjunction with data regarding receipts and disbursements of Individual Indian Monies, to estimate the benefit to the government from holding those monies at various points in time. Q. Have you developed models of this sort before throughout your career?
A. Yes.
Q. What have you done in that regard generally?
A. Well, I worked on matters, for example, involving the Holocaust in World War II, the Armenian Holocaust. Those are probably the most similar, where people were damaged because funds allegedly due them were withheld by an organization; in the Holocaust case, by Swiss banks.

But I've worked also on many damage models, beginning with the bankruptcy of the Washington Public Power Supply System, and most recently with the bankruptcy of Enron.

MR. GINGOLD: Plaintiffs would like to call up Plaintiffs' Exhibit 4. BY MR. GINGOLD:
Q. Were you in the courtroom yesterday, Professor Cornell?
A. Yes.
Q. Did you hear Professor Laycock's testimony with respect to Plaintiffs' Exhibit 4?
A. I did.
Q. I would like you to focus on the damages and restitution notes that are identified in that exhibit.

Are you familiar with the terms that are used in this particular exhibit?
A. Yes. In my professional consulting experience, I've come across these terms, restitution and damages, on numerous occasions.
Q. And with respect to a damages model, is it your understanding that the identified items are typical of what you would include in a damages model?
A. Yes. I think Professor Laycock did a very professional job yesterday of explaining the difference between damages and restitution, and what is constituted in each.
Q. And what is your understanding of what is constituted in a damages model?

MR. WARSHAWSKY: Objection, Your Honor, to the extent he's asking for a legal conclusion.

THE COURT: Sustained.
BY MR. GINGOLD:
Q. What is your understanding of what you were asked to develop
with respect to the model in this case?
A. In this case I was asked to develop a model that assessed the benefits to the government of having access to Individual Indian Monies.
Q. In your assessment of the benefits to the government, did you include in the model any assessment of income never collected?
A. Income never collected that should have been collected on Indian properties?
Q. That's correct.
A. No, I did not.
Q. Did you include in the model assets sold or assets leased below market value?
A. No, I did not attempt to determine whether or not transactions had been entered into at prices that were not fair to the individual Indians.
Q. Did you include mismanaged assets?
A. No.
Q. Did you include lost or stolen funds?
A. No.
Q. Did you include the consequences of failure to enforce lease terms?
A. My effort was not to.
Q. Did you include money not paid on direct pay contracts?
A. I did not.
Q. Now, what did you include, generally?
A. What did I do generally?
Q. What did you include in the model generally?
A. The key items that I included were funds collected on behalf of the individual Indian accounts, and funds -- an estimate of funds disbursed on those accounts. Those are the two key inputs to my model, along with an interest rate to reflect the cost to the United States government of borrowing funds.
Q. Generally how did you make the determination of estimating or modeling the costs of borrowing?
A. I used the 10-year Treasury bond rate. The United States government borrows at a variety of maturities, ranging from three-month Treasury bills up to 30-year Treasury bonds. The average rate at which they borrow is well approximated by the 10 -year rate, which is in the middle of that range, and in addition, data is available on the 10 -year bond rate going all the way back to 1887, where other maturities, such data is not available.
Q. Do you believe that's a reasonable rate to use?
A. Yes, I believe the 10-year Treasury bond rate is a reasonable approximation of the cost of funds, on average, to the United States government.

MR. GINGOLD: Plaintiffs would like to mark for identification Plaintiffs' Exhibit 40. BY MR. GINGOLD:
Q. Professor Cornell, have you reviewed this exhibit before?
A. Yes.
Q. Can you tell the Court what it is, as you understand it?
A. I forgot the exact source. It's a government document. But it compares rates on an IIM trust fund with 10-year U.S. Treasury rates.
Q. I would like you to pay particular attention to the highlighted portion of this document. And we're dealing with specific dates from September 1998 to January 1999. Do you see that, Professor?
A. I do.
Q. Do you notice whether or not there's a difference between the IIM OST rate and the 10 -year Treasury rate?
A. Yes. The IIM OST rate is significantly higher. And that's not surprising --

MR. WARSHAWSKY: Objection, Your Honor. With all due respect, Professor Cornell has stated he doesn't know where this document is from. I don't think a foundation has been laid for him to testify about it.

THE COURT: Overruled.
THE WITNESS: I just couldn't -- I think I said I couldn't remember where it was from. At one time I did know that, and I think the footnote says.
A. But to return to what $I$ was saying, the interest rates are substantially higher during that period on the IIM OST fund, and
that's not surprising. The 10-year government bond rate is one of the lowest interest rates in the economy. The safety, liquidity, regulatory benefits and whatnot provided by Treasury securities make them typically the lowest interest rate securities of their class in the country.

MR. GINGOLD: Your Honor, just a note in response to Mr. Warshawsky's question --

THE COURT: You don't need to. It was an objection, I overruled it.

MR. GINGOLD: But this was filed by the government in this case.

BY MR. GINGOLD:
Q. Professor Cornell, if you were creating or developing a damages model, would you use the 10 -year Treasury rate or the IIM OST factor?
A. Well, if I was developing a damages model, what I should use is the rate that the Indians reasonably could have earned on their funds. And usually, any well managed fund can earn something in excess of the Treasury rate without bearing any meaningful risk, so something like the IIM OST factor would probably be a better choice in a damages model.
Q. And why is that?
A. Because it represents what they could have earned and what they lost if they did not earn that rate.
Q. And you developed this model as a restitution model. Is
that correct?
A. I did.
Q. And what did you use? During this period of time, for example, September 1998 to January 1999, did you use the identifiable 10-year Treasury rates that are included in this schedule?
A. Yes. What I'm looking for is savings to the government by avoiding borrowing, and therefore $I$ want to use the rate at which the government borrows. And as I said earlier, I felt a fair approximation of that was the 10 -year Treasury rate.
Q. Is it your view that the difference in rate is significant?
A. During those five months that you've highlighted?
Q. Correct.
A. Well, if I were an investor, yes, I would consider 200 basis points to be an important difference.
Q. Generally over time, the rates do change, though, don't they, through your review of this particular schedule?
A. All interest rates change over time, as do these, and as does the relationship between them.

MR. GINGOLD: Plaintiffs would like to identify
Exhibit 41, Attachment A, analysis of benefit to the government. BY MR. GINGOLD:
Q. Did you prepare this attachment, Professor Cornell?
A. I did.
Q. I would like you to explain it generally and then we'll go
into the details.
A. Okay. Let me start at the highest level and explain how the mechanics work, and then we can go back and, like $I$ say, fill in the details.

MR. WARSHAWSKY: Excuse me, Your Honor. May we have a copy? This is not identical to the one the plaintiffs filed in their brief.
A. Okay. There are three key columns to understanding the mechanics of this chart, and $I$ want to focus on those, and then I can explain the details of how you get to those. And those three are column E, corrected revenues; column $F$, disbursement; and column $H$, the 10 -year Treasury bond rate that we've spoken of. All the other columns are fundamentally computed from those three.

So let me explain how it works, starting right at the top. If you begin in 1887, there is no accumulated benefit at that point. The account is just starting. In the first year, column E shows corrected revenues of .59 million and disbursements of .41. Assuming that those numbers are correct, that is a nominal benefit to the government of .18 million. Those are funds brought in, held in accounts to the benefit of the U.S. government, and not disbursed to individual Indians, and therefore, the benefit that year is .18 million to the U.S. government.

Now, there's no interest that year because that's the
first year. So to see how the interest enters in, let's go forward.

The following year, the government still has that benefit of that $\$ 180,000$. In addition, the following year there are corrected revenues of 1.09 million and corrected disbursements of .76. The difference between those two is . 33.

So if we want to get the total benefit to the government through the end of year two, there are three numbers to add up, the . 18 from the previous year, the . 33 from this year, and what is called the accrued benefit annual, which is just the interest rate applied to the . 18.

So the government gets three benefits; it gets funds from last year, funds from this year, and not having to pay interest on the funds from last year. You add those all together and you get . 52 .

Now let me do one more year, and I think the rest follows logically. The next year the government still has the .52, plus there are corrected revenues of 1.73 million, disbursements of .96. That's.41. So the three items that go into the total accumulated benefit are. 41 , .52 , and interest of .02 on the .52, for a total accumulated benefit of 0.95 .

And then you can just roll the thing forward year by year, the calculation just proceeds. And if you get to the end -- why don't we go to the last page, because there's something I need to explain. Suppose -- and I think this
hypothetical helps you understand how the math works. Suppose that all those differences between revenues and disbursements were just dumped into a bank account. None of the money was taken out of the bank, it was just put in there and allowed to accumulate interest, like a savings account for a child going to college, but a very long life child.

THE COURT: Or a very dumb child.
THE WITNESS: Yeah.
A. And if that account was never invaded, and if the interest rate was about equal to the 10 -year bond rate, then by 2007, that account actually would have accumulated to about $\$ 58$ billion.

Now, the reason I point this out, when I roll the entire thing forward, I get as the accumulated benefit at the very end $\$ 58,237,000,000$, but $I$ have to offset that with whatever is actually in the reported account, the trust balance, which is 423 million. Why is it 423 million and not 58 billion in the trust account?

The reason is that funds apparently have flowed out of that account, but they have not flowed out, as far as plaintiffs have been able to determine, to the benefit of individual Indians. Had there been no outflows, that account would be about 58,237,000,000, there would be a one-for-one offset, there would be no benefit to the government, and the government could simply disburse that account now to individual Indians. But the
fact that the account is so much smaller means that funds have flowed out somehow other than the disbursements that are taken account of in column E.
Q. Did you assume a disbursement rate in your model at all? A. Well, the word "assume" is not quite right. I did some analytical work to attempt to compute a disbursement rate; I would not, however, call it a detailed final study, but not a raw assumption, either. It's somehow in the gray area between those two.
Q. Are you familiar with the CP\&R data?
A. Yes.
Q. What is your understanding of the $C P \& R$ data?
A. Well, one of the things that plaintiffs asked for were detailed records of checks drawn on account, I think it's 4844, related to Individual Indian Monies. And by analyzing those checks, you can get an estimate of the relationship between disbursements and revenues.
Q. In column $F$, you have a disbursement category. Correct?
A. Yes.
Q. And what is the source of those disbursements?
A. Well, actually, the disbursements are a calculated number. We probably have to go back and do revenues first. Because the disbursements are computed as 69.82 percent of revenues, based on the $C P \& R$ data that you spoke of, and the revenues in turn are calculated from other sources.
Q. Do you know whether or not the revenues in the $C P \& R$ data have been -- is there evidence of the actual revenues -- or sorry, disbursements from the trust in the CP\&R data?
A. The $C P \& R$ data does not show revenues; actually, it shows disbursements. And it's actual checks written, and some checks not cashed, but the majority then cashed and the funds disbursed.
Q. Do you know what period of time that includes?
A. Yes. I have an exhibit that shows the $C P \& R$ data that $I$ analyzed, and it's, I believe, 1988 through 2002.
Q. We'll get to that in a moment.

With regard to the Attachment A, however, did you use data to support your calculations in this model?
A. Yes. I used various data sources to estimate both column E, what I've called corrective revenues, and column F, which I've referred to as disbursements.
Q. Did you have complete data for each year?
A. No.
Q. Do you recall for what particular years you had data?
A. Well, if we go back to the first page of Attachment A, what I've tried to do here to make it easier to read Attachment $A$ is highlight in yellow a number where it came from underlying documents or data sources, and leave in white a number where there was at least a partial calculation on my part.

So if we look at the revenue numbers in column B, you
can see that I have some data in the early years, and then if we page forward, then you can continue to just look at column $B$ and see what's in yellow. There's not much data in the middle years.

Can we go one more page? And then as we get into the later years, you'll start to see a lot more data. If you page one more forward, you see a lot of yellows in the later years under revenues, and that comes from what's been referred to as AR-171. But I think I need to be clear. Apparently there's been a proliferation of AR-171s. This is from the original October 2007 AR-171 that I was given when I began work on this assignment.
Q. Let's call up the original AR-171. Is this the AR-171 that you're referring to and that you used in the model?
A. Yes, it is. And if you want to foot the revenues that I have on my chart to this, they should be the revenues earned on Indian properties, not any interest paid on account balances. Because I'm taking account of the interest in my restitution model as a benefit to the government. I can't double count it. So, for example, if you go to year 2000 and you want to foot what's on my chart, you would take the Osage QTR annuity, the judgment per capita, the Tribal IIM, and the other receipts, you add those up, and now if you go back to Attachment A and scroll forward to year 2000, the number under column B, 215.3, would be the sum of those three items that I spoke of.

And all the yellow numbers in column B are from schedule AR-171, October 2007 version, computed in that fashion. Q. With regard to --

MR. GINGOLD: I would like to go back to the first page on Attachment A.

BY MR. GINGOLD:
Q. On page one of Attachment A, highlighted in yellow in column B for revenues is a 1909 number. Correct?
A. Yes.

MR. GINGOLD: Plaintiffs would like to identify (sic) for purposes of identification Plaintiffs' Exhibit 42. BY MR. GINGOLD:
Q. Professor Cornell, this is a report of the Commissioner of Indian Affairs to the Secretary of Interior for the fiscal year ended June 30, 1909. Is this the report that you used for the number or figure in 1909 for revenues in Attachment A? A. Yes. One of the things that I had asked my staff at the beginning of this assignment was that we do all we can to find and use actual historical data. And this is one of the documents that we were able to find showing revenue data prior to the inception of AR-171.
Q. I would like to turn your attention to a page of this document, and it's page 104, as identified in the document itself. Do you see the highlighted figures on this page? A. Yes.
Q. What do they mean to you?
A. What these highlighted documents --

MR. WARSHAWSKY: Pardon me, Your Honor. The copy you gave us didn't have all the pages.

THE COURT: It's on your screen.
MR. WARSHAWSKY: Is it just the fifth page?
MR. GINGOLD: It's just the fifth page.
BY MR. GINGOLD:
Q. Go ahead, Professor.
A. What these highlighted documents show are sources of funds, IIM funds, in the year 1909. And again, I don't want to double count interest, so I excluded. But there were three non-interest sources of funds all shown in yellow; add those together and you get $\$ 8.9$ million, or thereabouts. And if you go back real quickly to Attachment A --

MR. GINGOLD: Page one of Attachment A.
A. You can see that 1909, the first yellow one, that foots to the 8.9.

MR. GINGOLD: Plaintiffs would like to mark for identification Exhibit 43.

THE COURT: Would you go back to the page that you were just showing us?

MR. GINGOLD: That's Attachment A?
THE COURT: Yeah, with the highlighted numbers that footed to -- no, the page from the 1909 report from the

Commissioner to the Secretary that you just showed to Professor Cornell.

MR. GINGOLD: It's Plaintiffs' Exhibit 42, page five.
THE COURT: There you go. $\$ 12,983,000$ on hand and received. This $3,992,000$ that is part of that total is money that was in the hands of disbursing officers and in bonded banks to the credit of individual Indians.

How, if at all, does that amount of money fit into your calculation? Is that part of the accumulated sum of money on which interest has been calculated for years previous to 1909 in your model?

THE WITNESS: Yes, that would represent, if you like, the equivalent to the balance in your checking account at the beginning of the year, and that would reflect income from previous years and disbursements from previous years, and any interest earned. And then the 8.9 million reflects the receipts during that year. So before any disbursements, the balance would be 12.98 .

But the only number $I$ actually used from this data set was the receipts.

THE COURT: No, I understand that. The only number you used was the receipts, but this 3.9 million also works its way into your calculation because it's accumulated from previous years.

THE WITNESS: It would have been accumulated from
previous years, yes.
THE COURT: And if it's in bonded banks to the credit of individual Indians, presumably it's earning interest in those banks.

THE WITNESS: I would presume so, though any data on what rate and so forth is unavailable.

THE COURT: Okay. Go on.
BY MR. GINGOLD:
Q. But Professor, to the extent you're aware of any interest, you backed the interest out of your calculations. Correct? A. Correct. To the extent that there is any interest earned on the Indian funds held in the accounts, that will lead those accounts to be bigger, and ultimately lead the 423 million that I net out to be larger. So I can't double count that interest as a receipt.
Q. And to the extent that evidence is presented that interest was earned and that it is included in these totals, you would be able to back that interest out and revise the calculation. Is that correct?
A. Yes.

MR. GINGOLD: Plaintiffs would like to turn to
Exhibit 43.
BY MR. GINGOLD:
Q. This is a report of the Commissioner of Indian Affairs to the Secretary of the Interior for the fiscal year ended June 30,
1910. Have you reviewed this document, Professor?
A. Yes.
Q. Is this a document that you used for your revenue
information in Attachment A for 1910?
A. Yes. My staff located references to Indian revenues in this document.
Q. I would like to turn to the fourth page of this document.

Do you see the identified or the highlighted figures on this page?
A. Yes.
Q. Could you explain your understanding of what they are?
A. I interpreted all of those to be sources of receipts to Indian accounts. So I summed them, but netted out the interest.
Q. And the interest category is approximately $\$ 176,000$. Is that correct?
A. Yes. So the net looks like it's going to be net of the 176, about $\$ 10.4$ million. So if you go back to Attachment $A$, and if I'm remembering everything right, that will foot. Yes, there it is, 1910, $\$ 10.4$ million.
Q. I would like to go back to Plaintiffs' Exhibit 43, the fourth page. If you go look immediately above the highlighted figures and you see other figures which are identified as on hand July 1, 1909, do you see that?
A. Yes.
Q. With respect to what Judge Robertson asked you as to the
previous exhibit, what is your understanding of these numbers and how are they used in your model, if they're used at all? A. Well, that's the building up of the bank accounts in Indian names, or for the benefit of Indians. And it's not explicitly used, but it would be part of what eventually ends up to be the current balance of 423.
Q. I would like to turn back to Attachment A, please. Now, the next revenue number that you've identified as a source, specifically sourced data point, is for 1911. Correct? A. Correct.

MR. GINGOLD: Plaintiffs would like to mark for identification Exhibit 44, which is identified as reports of the Department of Interior for the fiscal year ended June 30, 1912.

Your Honor, it's identified as 1912, but it covers inside of this document the fiscal year 1911.

BY MR. GINGOLD:
Q. I would like you to turn your attention to the third page of this document, or page number seven of the report itself. And there are highlighted portions of this document. Do you see that, Professor?
A. Yes. It's another thing my staff located. There was 7.88 million received, and 272,000 of interest earned, so I netted the interest out against the receipts to get a total revenue from the Indian properties during that year.
Q. For purposes of clarification, Professor Cornell, with
regard to the $\$ 272,948$ in interest, do you see that?
A. Yes.
Q. Do you see the year that this refers to in that sentence?
A. 1911.
Q. And at the bottom of the page, I would like to note, do you
see the year that the $7,881,800$ was considered to have been received?
A. Yes.
Q. And there's a balance stated. Is that correct?
A. Yes.
Q. What year is that balance stated for?
A. Well, that was the beginning of the fiscal year 1911.
Q. Now I would like to turn back to Attachment A, please. So does the revenue number identified in B track the plaintiffs' exhibit that we just -- Plaintiffs' Exhibit 44?
A. I believe it does, but we're on the wrong page. You have to go back a page.
Q. Page one?
A. Well, it shows 1916 to '44. There's 1911, 7.61. That's 7.88 minus . 27 .
Q. Now, the next few years in Attachment $A$, you do not have the revenue figures highlighted, do you?
A. No.
Q. And what is the reason for that?
A. Couldn't find any data.
Q. You did put a data or revenue number in, though, didn't you?
A. Yes.
Q. How did you make that determination?
A. Well, all the white numbers I needed to, quote, fill in the blanks, and $I$ worked with some statisticians at CRA to examine various methods for filling in the blanks, linear regression, nonlinear regression, logarithmic models. And I found that simple linear interpolation between the missing points seemed to work as well as any of the more sophisticated methods, and it actually led to a smaller final number, and in that sense, I felt was conservative.

So for the results that I've reported here, I've used simple linear interpolation between the missing end points.
Q. Is that a reasonable approach, under these circumstances, in your opinion?
A. I think that you have to use some meaningful statistical method for filling in the blanks, and, like I say, I looked at a large variety, and I think the simple, direct one is reasonable in light of the work that I've done.
Q. With respect to fiscal year 1915, again you have a highlighted yellow number. Correct?
A. Yes.

MR. GINGOLD: Plaintiffs would like to mark for identification Exhibit 45. BY MR. GINGOLD:
Q. This is identified as a report from the Commissioner of Indian Affairs in 1915, as of June 30th, 1915. Have you reviewed this document before, Professor?
A. Yes.
Q. I would like you to take note of the highlighted portions of this report.
A. They're on a number of pages.
Q. Let's start with page one. With regard to page one, do you see the highlighted numbers?
A. Yes.
Q. Okay. What do they mean to you?
A. They're proceeds from land sales during that period, is the way I interpret it.
Q. Are there two different categories of land sales here?
A. Yes.
Q. What are they?
A. There are so-called non-competent sales and inherited land sales.
Q. Did you use these proceeds numbers in your model?
A. Yes. They're two of the elements that I summed to get my final 1915 number.
Q. I would like to turn to the next page, please. Do you see the highlighted number on this page?
A. Yes.
Q. What does this refer to?
A. Income from leased land.
Q. And did you use this number in your calculation in your model?
A. I did.
Q. I would like to turn to the next page, please. And again, there's a highlighted number on this page as well, and what is your understanding of that number?
A. Again, income from leases. This may be, I don't recall specifically, mineral leases, but it's further lease income.
Q. I would like you to note at the top of the page, the table identifies this is grazing lands.
A. Oh, yes, okay.
Q. And did you use this income total in your calculation for fiscal year 1915?
A. I did. I added that in.
Q. I would like to turn to the next page, please. There are three items highlighted here, aren't there?
A. Yes. These are royalty payments, and I think this one is related to minerals, oil and gas.
Q. Yes, that is referred to in the description at the top of the table. Is that correct?
A. Yes.
Q. And did you use this revenue information in your calculation
for 1915 in your model?
A. Yes, I summed the three yellow items.
Q. I would like to turn to page two of Attachment A. You have additional highlighted revenue numbers, don't you, Professor? A. Yes.
Q. And the next one we have is 1916. Is that correct?
A. Yes.

MR. GINGOLD: Plaintiffs would like to mark for identification Exhibit 46, which is a report from the Commissioner of Indian Affairs for fiscal year ended June 30, 1916.

BY MR. GINGOLD:
Q. Professor, on page one of Plaintiffs' Exhibit 46, do you notice specific proceeds or revenue numbers in this report? A. Yes. In fact, just to make following this simpler, there's five years, I believe, where we have reports, and they're all the same. So for those five years, I think it's -- or six years, 1915 through 1920, I went through and picked out exactly the same lines.

So as we walk through this, it will be similar to the one we just did. You'll have first the land sales , then you'll have the two leases --
Q. This is on page two of Plaintiffs' Exhibit 46. Correct?
A. Yes. You'll have a lease income number there.
Q. And then page three of Exhibit 46?
A. You'll have another lease income.
Q. And then the last page of the exhibit?
A. Is the minerals, oil and gas, with the three numbers that $I$ summed.
Q. And then you employed all of these revenue numbers in your model for 1916. Correct?
A. I add them up, and that's the number that will foot to revenue for 1916.
Q. So if you calculated those numbers, they would be equal to $\$ 13.61$ million. Correct?
A. Yes.
Q. With respect to 1917 , did you do the same thing?
A. Exactly the same thing.

MR. GINGOLD: Your Honor, we have -- I can go through these if you like. Let's go to Plaintiffs' 47.

THE COURT: It's your nickel, Mr. Gingold. BY MR. GINGOLD:
Q. Let's go to Plaintiffs' 47. You see the highlighted revenue or proceeds numbers in this document, which is fiscal year January 30, 2017 (sic) document from the Commissioner of Indian Affairs?
A. I do.
Q. What do they mean to you?
A. As I just stated, we can march through this, we'll have the land sales, two leases, and then the minerals, oil and gas. And if you sum all those highlighted numbers, you'll get the number on Attachment A.
Q. And they're exactly what you've described, but they're different numbers, correct, for this fiscal year?
A. Yes. Exactly the same schedule, just different numbers for the more recent years.

MR. GINGOLD: Plaintiffs would like to mark for
identification --

BY MR. GINGOLD:
Q. And that, Professor, is with respect to 1917, correct, in your Attachment A?
A. Excuse me?
Q. These numbers are the numbers you used --
A. Yes.
Q. -- to calculate the revenue number in Attachment A for 1917.

Correct?
A. That's correct. The sum foots to the revenue for 1917.

MR. GINGOLD: Plaintiffs would like to mark for
identification Exhibit 48.
BY MR. GINGOLD:
Q. This is a fiscal year ending June 30, 1918 document, a Commissioner of Indian Affairs report. Professor, are these the same proceeds and revenue numbers for 1918, same categories that you used in your previous calculations --
A. Yes.
Q. -- for each fiscal year?
A. Exact same categories, same relation on the pages. Add them
all up, you'll get the 1918 number.
Q. And that's on page one, page two, page three, and page four of this report. Correct?
A. That is correct.
Q. And that number should track the number in 1918. Correct?
A. It does.
Q. Which is $\$ 21.02$ million?
A. Yes. I checked all these last night to be sure that they did indeed foot.

MR. GINGOLD: Plaintiffs would like to mark for
identification Exhibit 49.
BY MR. GINGOLD:
Q. This is a Commissioner of Indian Affairs report for fiscal year ended June 30, 1949. Professor, once again, did you use the proceeds or revenue numbers --
A. I think you said 1949.
Q. Sorry, 1919. I'm sorry. It's at Plaintiffs' Exhibit 49.
A. Yes.
Q. So you used these, the highlighted numbers, starting page one?
A. You know, I think that there was a number that should have been highlighted that was not, if we go back and make it a little bigger, like you did.

MR. GINGOLD: Page one, please highlight.
A. Yes. I think the $1,224,000$ under proceeds, non-competent
sales, should be highlighted.
BY MR. GINGOLD:
Q. And what number is that, Professor?
A. The one they are now highlighting, that one.
Q. Okay. And that number was included in your calculation for 1919, was it not?
A. That's my recollection, yes.
Q. Let's go to the next page. There's a highlighted number on this page under "total income." Did you include that number --
A. Yes.
Q. -- in your calculation?

I would like to go to the next page. Once again, we have a total income category. Do you see that?
A. I do.
Q. And once again, you included that in your calculation for 1919, didn't you?
A. Yes.
Q. And finally, the next page has revenue numbers for three different categories. Correct?
A. Yes.
Q. And did you include those numbers in your calculation for the revenue figures for 1919?
A. I did.

MR. GINGOLD: Plaintiffs would like to mark for identification Exhibit 50. This is again a Commissioner of

Indian Affairs report for fiscal year ended June 30, 1920. A. Yes.

BY MR. GINGOLD:
Q. On page one, we have a highlighted number in total income. Do you see that?
A. Yes.
Q. Did you include that number in your calculation for the revenues for 1920?
A. Yes.
Q. The next page, total income, this is with respect to leased grazing lands. Did you include that number in your total for your calculation of your 1920 revenues?
A. I did, yes.
Q. I would like to go to the next page. With respect to sales of allotted lands, did you include the number under proceeds in your calculation for 1920?
A. Yeah, I believe both numbers under proceeds should be highlighted once again, so we would include the non-competent sales and the inherited land sales.
Q. And finally on this document I would like to go to the next page. You again have three items or three proceeds identified under revenue. Did you include those numbers in your calculation?
A. I did, yes.
Q. And once again, using these numbers should allow you to come
to the conclusion that your revenue for 1920 is $\$ 38.64$ million. Is that correct?
A. Correct.

MR. GINGOLD: Plaintiffs would like to mark for identification Exhibit 51. This is a report of the Commissioner of Indian Affairs, fiscal year ended June 30, 1923.

BY MR. GINGOLD:
Q. I would like to point your attention to the next page of this document. Do you see the highlighted numbers on this page?
A. I do.
Q. What do they mean to you?
A. Rather than the breakout, we only had the descriptive text in this year, and it shows the amount deposited in the banks, 35 million, which $I$ interpreted to be the receipts, and then it mentions interest of 1.425 million, which $I$ took to be interest in addition. So I did not add that in, I just used the amount deposited.
Q. And did you use the $\$ 35$ million figure as the revenue figure for --
A. Let's go back. I want to be sure.
Q. Go back to the Attachment A?
A. Yes, please.
Q. First page -- or second page?
A. Yes. You'll see in 1923 the $\$ 35$ million.
Q. And if the government presented evidence that the
\$35 million included $\$ 1,425,000$ dollars in interest, you would be able to back that out of your model, wouldn't you?
A. Yes. In fact, if the government presented any detailed information on any of these numbers of revenues and disbursements, this schedule could be adjusted.

MR. GINGOLD: Plaintiffs would like to mark for identification Exhibit 52.

BY MR. GINGOLD:
Q. This is a document that is identified as Institute For Government Research, the Office of Indian Affairs, and it's dated 1927. Do you see that on the cover?
A. Yes.
Q. I would like you to go to the second page. Do you see the highlighted portion of the sentence on the second page?
A. Yes.
Q. Do you see this is identified as fiscal year 1926?
A. I do.
Q. Now, there are receipts identified for fiscal year 1926 with regard to Individual Indian Money. Do you see that?
A. Yes.
Q. What is that number?
A. $\$ 22.75$ million.
Q. Let's go back to Attachment A, page two. Did you use the number from Plaintiffs' Exhibit 52 to identify the number in fiscal year 1926 under revenues?
A. Yes. There it is, actually rounded up to 22.76 .

THE COURT: And what does the disbursement column show over there? Because what you just showed us has a --

THE WITNESS: Well, the disbursement column is actually going to be 70 percent of what $I$ call the corrected revenues. THE COURT: Yeah, but go back to what you just showed us.

MR. GINGOLD: Let's go back to Plaintiffs' Exhibit 52. THE COURT: Yeah.

MR. GINGOLD: The second page. I think the middle of the paragraph --

THE COURT: It says the disbursements totaled 35 million, and you've got a number of 20 something million, which is a calculated number.

THE WITNESS: Correct.
THE COURT: So you're buying one half of this equation
but not the other half. Why?
THE WITNESS: There is very sparse and incomplete data -- are you asking him or me, Your Honor?

THE COURT: You. You.
THE WITNESS: Very sparse and incomplete data on disbursements. I felt that the best data I had on disbursements was the $C P \& R$ data, and I applied that throughout.

But I'm sensitive to the fact that there may be a better way to do disbursements, and if there is, I'm more than
willing to go back and change my disbursement numbers to whatever is most appropriate.

THE COURT: Well, in this particular case the disbursement number is 35.4 million, and what does it show on your table?

MR. GINGOLD: Let's go back to Attachment A, page two.

THE COURT: 23 million.

THE WITNESS: Correct.

THE COURT: So there's a $\$ 12$ million difference there. That's pretty stark.

THE WITNESS: Well, there are other years, too, where you will see the same thing, and some years where you have this patchwork data going the other way.

THE COURT: But this disbursement column is a calculated column --

THE WITNESS: It is a calculated --

THE COURT: -- 69.8 percent?

THE WITNESS: Yes.

BY MR. GINGOLD:
Q. Indeed, Professor, with regard to the other fiscal years that we've been talking about through the exhibits that you have been testifying to, and that's 1909, 1910, 1911, 1915, 1916, 1917, 1918, 1919, 1920, and 1923, did you observe in those particular reports reports of disbursements?
A. Occasionally. I can't say that there was one every year.
Q. So is there a reason you did not use the actual reported disbursements instead of the calculated disbursements for those years?
A. Well, like I say, the disbursement data was particularly patchwork and not very clearly described, so I felt between two tough choices, I would project the $C P \& R$ data backward in time. I felt that was more reasonable, but I recognize that there could be further refinement that might be better than either simple approach.
Q. And depending on what the government presents as evidence, you can adjust your disbursement numbers up or down. Correct? A. Yes. Ultimately it was explained to me that the proving up of the disbursements would be the job of the government, and the government was going to present evidence. And when I've had a chance to see that evidence, I can respond accordingly.
Q. Let's talk about the other categories we have on Attachment A.

THE COURT: Just for interest, and as a way of trying to figure out what is the sensitivity of this model, is there any quick or easy -- is this spreadsheet loaded on anybody's computer here? I mean, an active --

THE WITNESS: You mean like an Excel, so you can change numbers?

THE COURT: Yeah, yeah.
THE WITNESS: We can make sure that it is after lunch.

THE COURT: I'm considering what would happen, just for the sake of interest, if you adjusted that single year disbursement number from 23 to 35 million, what would be the bottom line after 70 or 80 years?

MR. GINGOLD: Your Honor, we could do this over lunch for you and can give you a precise explanation for it.

THE COURT: I'm just interested in the sensitivity of this model, that's all.

MR. GINGOLD: My understanding, Your Honor, is that any particular year will not have a material effect on a conclusion, it's a buildup, and adjustments over a series of years could have a material effect downwards or upwards, Your Honor.

THE COURT: Okay. Let's test that proposition over lunch.

MR. GINGOLD: We shall do that, Your Honor. THE COURT: All right.

THE WITNESS: I can do the back of the envelope in my head, too.

THE COURT: You've got a pretty good head if you can figure that one out.

MR. GINGOLD: Your Honor, he has a very good head. BY MR. GINGOLD:
Q. Let's do that, Professor.
A. The way you would do that is it's a $\$ 12$ million difference, and then you just run it forward at the compounded interest
rate. What year is that $\$ 12$ million difference?
THE COURT: 1926, I think, something like that. MR. GINGOLD: 1926.
A. So you're looking at 80 years of interest at an average of about five percent. That's going to be a 10 to 20 times factor. Let's take the upper bound and say 20 times, so 12 times 20 would be 240 million. It would reduce the final number I think by about 240 million.
(Speaking from audience.)
MR. WARSHAWSKY: I don't think that person is sworn in, Your Honor.

THE COURT: He's got a different envelope he's done it on.

MR. GINGOLD: I think there's cash in that envelope, Your Honor.

THE WITNESS: We'll get the exact number after lunch. MR. GINGOLD: Your Honor, we'll get the exact number and explain the effects that it has.

BY MR. GINGOLD:
Q. I would like to turn your attention to Plaintiffs' Exhibit 53, and I would like to go to page three of Attachment A, please.
A. Okay, I'm there.
Q. You're there, we're not.
A. I'm on the cover page, I guess.
Q. No, we're going to Attachment A again.
A. Oh, excuse me. Okay.
Q. Page three of Attachment A. In 1955 you've identified what number as revenues, Professor?
A. 66.81 million.
Q. Let's go back to Plaintiffs' Exhibit 53. I would like to turn to the fourth page of this exhibit. If we can focus on the left-hand side of the page, do you see an item that's underlined on the page, Professor?
A. Yes.
Q. Do you know what that is?
A. 66.81 million. That's the total collections.
Q. And that's a total collection for fiscal year 1955.

Correct?
A. Yes.
Q. Let's go back to Attachment A once more, please, and it's the third page of Attachment A. And that number is the number you used, correct, in your revenue calculation?
A. Correct.

THE COURT: Hold it.
MR. GINGOLD: 1955, Your Honor, 66.81.
THE COURT: Yeah. And again, disbursements in that same document say something like 66 million, and here it says 52 million.

THE WITNESS: Correct. Disbursements mentioned in that
document are larger.
MR. GINGOLD: So Your Honor, we will factor that in during lunch as well.

Plaintiffs would like to mark for identification

Exhibit 54. Exhibit 54 is the United States Department of Interior Official Office of Survey and Review Audit Operations. It's dated March 1969.

BY MR. GINGOLD:
Q. I would like to turn your attention to the fourth page of this report. Excuse me, before we go to the fourth page, let's go to the third page. I would like to focus in on the middle of the third page.

This confirms that this review was performed during the period June through November 1968?
A. Yes.
Q. I would like to now turn to the fourth page. The fourth page, there's a paragraph with the number one. Do you see that?
A. Yes.
Q. What is that?
A. \$121 million.
Q. \$121 million in what? What does it represent?
A. It represents the total receipts.
Q. Let's go back to Attachment $A$, the third page in

Attachment A. Do you see 1968 and the revenues there, Professor?
A. I do.
Q. And what number is that?
A. \$121 million.
Q. Now, Professor, we now have over the next two pages or three pages of the attachment all highlighted revenue numbers. Do you see that?
A. Those are AR-171, as I described earlier in my testimony.
Q. Let's bring back AR-171. Could you explain, Professor, once again, how you used the information in AR-171 to calculate --
A. I summed column C, D, E, and F, which I interpreted to be revenues related to Indian lands, but excluding interest on deposits.
Q. And what is column C?
A. Column C is something called the Osage Quarterly Annuity.
Q. And what is --
A. In my Attachment A I called it Osage Government Calculated.
Q. And column $D$ in $A-171 ?$
A. Judgment Per Capita.
Q. And column E?
A. Tribal IIM.
Q. And then $F$, you have Other Receipts. Correct?
A. Correct.
Q. What does that mean?
A. Everything else I interpreted that to be, everything else the government accounted for.
Q. And do you have any understanding of where AR-171 is sourced?
A. I knew it. I don't remember off the top of my head. I believe -- I can't remember if there's a footnote on this one or not. But it came from the government. I don't recall the precise source from which they got it.
Q. So none of the revenue numbers or disbursement numbers are numbers that are your numbers. Correct?
A. Correct. This is a government document.
Q. Plaintiffs would like to mark for identification Exhibit 55.

Professor Cornell, what is Exhibit 55?
A. This is simply a graphical representation of the revenue data points that we've been through, the individual years that we've gone through up through 1968, I think it is, and then the AR-171 data after that.
Q. So is this actual data that you --
A. This is all the actual data.
Q. I would like to turn to the second page of this exhibit, which is identified as part of Plaintiffs' Exhibit 55,

Attachment B.2. Now, what does this reflect? This is identified as "Annual IIM Trust Revenue, 1887 to 2007, Derived From Government Data, Missing Data Estimated Using Linear Interpolation."
A. This is a plot of the data with the blanks filled in by linear interpolation. So to get a missing observation, it would
be the point on the blue line for any particular year.
And in Attachment A, those numbers are shown without the yellow highlighting.
Q. The numbers reflected in the blue line as opposed to the red dots are reflected without the yellow highlighting. Correct?
A. Yes.
Q. Is this a reasonable approach to estimate missing data, in your view?
A. I think it is. Like I said before, it's consistent with more sophisticated approaches, and when you look at the plot, it seems to be largely consistent with what you would expect, given the observations that we do have.

THE COURT: Except for that big spike in the late $\quad 70 \mathrm{~s}$ and early '80s. Where does that come from?

THE WITNESS: You know, my guess, and it's only an educated guess, is that's the first oil boom, and you get a lot of oil revenues when the oil prices spike. But $I$ can't say that for sure.

The linear interpolation ends where the blue line ends, and it's all government data after that.

THE COURT: After that it's all --
THE WITNESS: All actuals.

BY MR. GINGOLD:
Q. So whether it's right or wrong, you took that from actual government data. Correct?
A. Yes.
Q. And to the extent there is better data proved up in this case, you can adjust it appropriately. Is that correct?
A. Yes.

MR. GINGOLD: Plaintiffs would like to mark for
identification Exhibit 56, which is identified as Attachment C, Individual Indian Trust Disbursement Calculation.

THE COURT: Can we get into that after lunch? MR. GINGOLD: Yes, Your Honor.

THE COURT: We'll be in recess for an hour for lunch. Thank you.
(Recess taken at 12:28 p.m.)

CERTIFICATE OF OFFICIAL COURT REPORTER

I, Rebecca Stonestreet, certify that the foregoing is a correct transcript from the record of proceedings in the above-entitled matter.

SIGNATURE OF COURT REPORTER
DATE

| \$ | $\begin{aligned} & 10[4]-209: 4, \\ & 221: 20,222: 9,296: 5 \end{aligned}$ | $\begin{aligned} & \text { 283:14, 283:24, } \\ & \text { 284:16, 293:22 } \end{aligned}$ | $\begin{aligned} & \text { 270:10, 273:11, } \\ & \text { 274:2, 300:21 } \end{aligned}$ | $\begin{aligned} & 40[1]-264: 24 \\ & 404[1]-209: 18 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| \$1,425,000 [1] - | 10-year [20]-221:15, | 1916[6]-280:19, | 2008[1] - 209:4 | 41 [4]-267:21, |
| 291:1 | 222:2, 222:8, 225:13, | 284:4, 284:9, 285:4, | 2017 [1] - 285:18 | 268:19, 269:19, |
| \$10 [1] - 227:21 | 247:14, 247:16, | 285:6, 293:22 | 202 [5]-209:14, | 269:20 |
| \$100 [7]-217:9, | 247:22, 247:24 | 1917 [5] - 285:10, | 209:22, 210:5, | 42 [2] - 274:11, 276:3 |
| 221:7, 221:10, | 264:11, 264:15 | 286:8, 286:13, | 210:10, 210:14 | 423 [4]-270:17, |
| 221:24, 222:1, 225:2 | 264:16, 264:20, | 286:15, 293:23 | 212 [1] - 211:4 | 277:13, 279:6 |
| \$101 [1] - 225:16 | 265:5, 265:13, 266:1, | 1918 [5]-286:19 | 15.3[1]-273 | 43 [3] - 275:20 |
| \$12 [3]-293:9, | 266:14, 267:5, | 286:21, 287:1, 287:5, | $22.76{ }_{[1]}$ - 292:1 | 277:22, 278:20 |
| 295:24, 296:1 | 267:10, 268:12, | 293:23 | 23 [2]-293:7, 295:3 | 44 [2] - 279:12, |
| \$12,983,000 [1] - | 270:10 | 1919 [5] - 287:17, | 235.07 [1]-224:23 | 280:15 |
| 276:4 | 10.4[2]-278:17 | 288:6, 288:16, | $24[1]-256: 4$ | 45 [1] - 281:24 |
| \$121 [3]-298:20, | 278:19 | 288:22, 293:23 | $240[2]-296: 7,296: 8$ | 46 [4]-284:7 |
| 298:21, 299:3 | 100 [7]-236:21, | 1920 [7]-284:16, | 247 [1] - 211:3 | 284:11, 284:21, |
| \$13.61 [1] - 285:8 | 236:23, 237:1, 237:6, | 289:1, 289:8, 289:12, | 54 [1]-211:4 | 284:23 |
| \$176,000[1]-278:14 | 237:9, 237:11, 238:1 | 289:16, 290:1, 293:23 | 255 [3]-211:4, | 466 [4]-211:11, |
| \$179,000[1]-222:12 | 1001 [1]-209:24 | 1923 [3]-290:6, | 211:11, 211:12 | 255:5, 255:6, 255:16 |
| \$180,000 [1] - 269:4 | 101 [1]-225:1 | 290:24, 293:23 | 261 [1]-211:6 | 47 [2] - 285:13, |
| \$21.02 [1] - 287:7 | 104 [1] - 274:23 | 1926 [5]-291:16, | 27 [1] - 280:20 | 285:16 |
| \$22.75 [1] - 291:22 | 1100 [2]-209:16, | 291:18, 291:25, | 27101 [1]-209:25 | 48 [1] - 286:17 |
| \$272,948 [1] - 280:1 | 210:4 | 296:2, 296:3 | $272,000[1]-279: 22$ | 482 [1] - 225:21 |
| \$300 [1] - 227:23 | $12{ }^{[1]}$ - $296: 6$ | 1927 <br> 1949 [1] - 291: 28711 | $2800[1]-209: 17$ | 483[2]-254:13, |
| $\begin{aligned} & \$ 35[3]-290: 18, \\ & 290: 24,291: 1 \\ & \$ 38.64[1]-290: 1 \\ & \$ 50[1]-227: 22 \\ & \$ 58[2]-218: 21, \\ & 270: 12 \\ & \$ 58,237,000,000[1]- \\ & 270: 15 \end{aligned}$ | $121[1]-222: 9$ | 287:16 |  | $4844 \text { [1] - 271: }$ |
|  |  |  | 3 |  |
|  | $\begin{aligned} & \text { 12:28 [1]-302:12 } \\ & \text { 14th [2]-209:12, } \end{aligned}$ |  | $\begin{aligned} & 3,992,000[1]-276: 5 \\ & 3.9[1]-276: 22 \end{aligned}$ | $\begin{gathered} 487[4]-211: 12, \\ 233: 6,255: 7,255: 16 \end{gathered}$ |
|  | 209:20 | 1968[3]-298:14, |  | $\begin{aligned} & 49 \text { [2]-287:11, } \\ & 287: 17 \end{aligned}$ |
|  | $\begin{aligned} & \text { 14X-6039 [4] - } \\ & 213: 25,240: 12, \\ & 240: 23,253: 4 \\ & 176[1]-278: 16 \\ & 18[4]-268: 20, \\ & 268: 23,269: 9,269: 11 \end{aligned}$ |  | 30[14]-223:7, |  |
|  |  | $\begin{array}{\|c\|} \hline 298: 24,300: 14 \\ 1969[1]-298: 7 \end{array}$ | $\begin{aligned} & \text { 223:25, 224:3, } \\ & \text { 249:21, 274:15, } \end{aligned}$ | 287:17 |
|  |  | $\begin{aligned} & 1970[1]-260: 2 \\ & 1974[1]-260: 3 \end{aligned}$ |  | 5 |
|  |  |  | 277:25, 279:13, <br> 284:8, 285:18, | $\begin{gathered} 5[4]-217: 10, \\ 217: 11,227: 14,259: 6 \end{gathered}$ |
|  |  | $\begin{aligned} & 1975[1]-260: 4 \\ & 1988[2]-222: 21, \end{aligned}$ | 289:1, 290:6 |  |
| '44[1] - 280:19 | $\begin{gathered} \text { 268:23, 269:9, 269:11 } \\ 1887[10]-219: 20, \end{gathered}$ | $\begin{aligned} & 1988 \text { [2]-222:21, } \\ & 272: 10 \end{aligned}$ |  | 50 [1] - 288:25 |
| '70s [1] - 301:13 | $\begin{aligned} & \text { 222:11, 223:7, } \\ & \text { 223:12, 223:17, } \end{aligned}$ | 1994 [1] - 244:23 | 30-year [1] - 264:13 | $51[1]-290: 5$$52[8]-269: 15$,[ |
| '80s [1] - 301:14 |  | 1998[2]-265:9,267:4 | $\begin{aligned} & \text { 30309-4530 [1] - } \\ & \text { 209:17 } \end{aligned}$ |  |
| '87 [4]-222:16, | $\begin{aligned} & \text { 223:12, 223:17, } \\ & \text { 224:8, 224:13, } \end{aligned}$ |  |  | $52[8]-269: 15$, 269:18, 269:20, |
| 222:17, 222:18, | $\begin{aligned} & \text { 224:8, 224:13, } \\ & \text { 264:17, 268:16, } \end{aligned}$ | $1999 \text { [3] - 238:6, }$ | 307-0010 [1]-210:5 | $\begin{aligned} & \text { 269:18, 269:20, } \\ & \text { 269:21, 291:7, } \end{aligned}$ |
| 222:23 | 300:21 | $\begin{aligned} & \text { 265:9, 267:4 } \\ & \text { 1st }[1]-244: 12 \end{aligned}$ | 307-1104[1] - 210:1030th [1] - 282:2 | $\begin{array}{r} 291: 24,292: 8,297: 24 \\ 53[2]-296: 21,297: 6 \end{array}$ |
| '88 [7] - 222:17, | $\begin{gathered} 1888 \text { [4] - 223:8, } \\ 223: 15.223: 17 . \end{gathered}$ |  |  |  |
| 222:18, 222:19, |  |  | $\begin{aligned} & \text { 30th }[1]-282: 2 \\ & 33_{[2]}-269: 6,269: 9 \end{aligned}$ | $\begin{aligned} & 53 \text { [2] - 296:21, 297:6 } \\ & 54[2]-298: 5 \end{aligned}$ |
| 222:22, 222:23, | 224:13 | 2 | 3310 [2]-255:23, | 55[3]-300:10, |
| 223:13 |  |  | 256:4 | $\begin{aligned} & 300: 11,300: 19 \\ & 56[2]-237: 11,302: 6 \end{aligned}$ |
| '89 [3]-222:17, | $1889[1]-223: 8$ | $\begin{aligned} & 2[1]-209: 8 \\ & 2,567,671,000,000 \end{aligned}$ |  |  |
| 222:18, 223:13 | 1909 [9]-274:8,274:15, 274:16, |  | 333 [1]-210:13 $336[1]-209: 25$ | $58[1]-270: 17$ |
|  |  | $[1]-226: 14$ [0] | 336.68 [1] - 224:22 | 58,237,000,000[1] - |
| 0 | $\begin{aligned} & \text { 275:11, 275:17, } \\ & \text { 275:25, 276:10, } \\ & \text { 278:23, 293:22 } \end{aligned}$ |  | $\begin{array}{r} 35[3]-290: 14 \\ 292: 13,295: 3 \end{array}$ | $\begin{aligned} & 270: 23 \\ & 585-0053[1]-209: 22 \\ & 59[1]-268: 18 \end{aligned}$ |
| 0.95 [1] - 269:21 |  | 292:13, 296:5, 296:6 |  |  |
| 02 [1]-269:21 | 1910 [4]-278:1, <br> 278:4, 278:19, 293:22 | $\begin{gathered} 200[1]-267: 14 \\ 2000[2]-273: 20, \end{gathered}$ | $\begin{aligned} & 35.4[1]-293: 4 \\ & 354-3249[1]-210: 14 \end{aligned}$ | $59[1]-268: 18$ |
| 1 | 1911 [6] - 279:9, | $20001 \text { [1] - 210:13 }$ | 37[1] - 240:7 <br> 38[1]-254:11 <br> 39[2]-239:16, 254:7 | 6 |
| 1 [1] - 278:23 | $\begin{aligned} & \text { 279:15, 280:4, } \\ & \text { 280:12, 280:19, } \\ & \text { 293:22 } \\ & 1912[2]-279: 13, \end{aligned}$ | $\begin{aligned} & \text { 20005[3]-209:13, } \\ & \text { 209:21, 210:4 } \end{aligned}$ |  | $\begin{aligned} & 6.22[1]-225: 14 \\ & 6000[1]-240: 20 \end{aligned}$ |
| 1,200[1]-241:16 |  |  |  |  |
| 1,224,000 [1] - |  | $\begin{aligned} & 2002[1]-272: 10 \\ & 20044[1]-210: 9 \end{aligned}$ | 4 | $\begin{aligned} & 6039[1]-240: 13 \\ & 607[2]-209: 12, \end{aligned}$ |
| 287:25 |  |  |  |  |
| 1.09 [1] - 269:5 | $\begin{aligned} & 279: 14 \\ & \text { 1915[8]-281:20, } \\ & \text { 282:2, 282:21, } \end{aligned}$ | $\begin{aligned} & 2007[9]-224: 18, \\ & \text { 224:20, 226:9, } \\ & \text { 226:11, 227:16, } \end{aligned}$ | $\begin{aligned} & 4[2]-261: 24,262: 4 \\ & 4.5[2]-218: 12, \\ & 218: 17 \end{aligned}$ | $\begin{aligned} & \text { 209:20 } \\ & 607-7392[1]-209: 25 \\ & 6511[1]-210: 12 \end{aligned}$ |
| $1.425[1]-290: 15$ |  |  |  |  |

Rebecca Stonestreet

| 66 [1]-297:23 | Account [4] - <br> 212:16, 214:5, 241:16 <br> account [44] - <br> 212:17, 213:22, <br> 213:23, 213:25, <br> 214:3, 214:13, <br> 214:17, 214:18, <br> 217:6, 217:17, <br> 229:18, 239:4, <br> 239:20, 240:24, <br> 241:15, 248:23, <br> 248:25, 249:5, 249:9, <br> 249:14, 249:17, <br> 252:5, 256:6, 256:17, <br> 256:18, 257:2, 257:3, <br> 268:17, 270:3, 270:5, <br> 270:9, 270:11, <br> 270:16, 270:18, <br> 270:20, 270:22, <br> 270:25, 271:1, 271:3, <br> 271:14, 273:17, <br> 273:18, 276:13 <br> accounted [2] - <br> 248:24, 299:25 <br> accountholders [1] - <br> 251:6 <br> accounts [17] - <br> 214:4, 215:2, 217:18, <br> 228:24, 241:16, <br> 249:11, 252:25, <br> 256:7, 256:22, <br> 257:11, 264:5, 264:6, <br> 268:21, 277:12, <br> 277:13, 278:13, 279:3 <br> accrued [1] - 269:10 <br> accumulate [1] - <br> 270:5 <br> accumulated [9] - <br> 219:2, 268:16, <br> 269:20, 269:21, <br> 270:11, 270:14, <br> 276:9, 276:23, 276:25 <br> Act [1] - 244:24 <br> act [3] - 244:25, <br> 245:4, 245:5 <br> Action [2]-209:2, <br> 212:5 <br> active [1] - 294:21 <br> actual [9]-219:3, <br> 272:2, 272:5, 274:19, <br> 294:1, 300:16, <br> 300:17, $301: 24$ <br> actuals [1] - 301:22 <br> Add [1] - 286:25 <br> add [9]-219:11, <br> 219:17, 220:14, <br> 269:9, 269:14, <br> 273:23, 275:13, <br> 285:5, 290:16 <br> added [1] - 283:15 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 66.81 [3]-297 |  | 269:4, 290:16 | almost [1] - 258:20 |  |
| 297:1 |  | additional [1]-284 | America [3]-224:16 |  |
| 293 |  | $\text { adds [1] }-219: 15$ | $228: 25,235: 24$ |  |
| 69 |  | adjust [2]-294:11, | American [1] - |  |
| 6999 |  | 302:3 |  |  |
|  |  | $\begin{aligned} & \text { adjusted [2] - 291:5, } \\ & \text { 295:2 } \end{aligned}$ | amount [15] 215:15, 215:16, | $\begin{aligned} & \text { 248:19, 248:20 } \\ & \text { appropriations [3] - } \end{aligned}$ |
|  |  |  |  |  |
|  |  | $\begin{aligned} & \text { adjustments [1] - } \\ & \text { 295:11 } \end{aligned}$ | $\begin{aligned} & \text { 218:20, 225:11, } \\ & \text { 225:12, 225:13, } \end{aligned}$ | $\begin{gathered} \text { 243:8, 243:12, 248:16 } \\ \text { approximated [2] - } \end{gathered}$ |
| 7,881,800 |  |  |  |  |
|  |  | administered [2] - | $\begin{aligned} & \text { 225:12, 225:13, } \\ & \text { 227:19, 230:2, } \end{aligned}$ | $\begin{aligned} & \text { 222:1, 264:14 } \\ & \text { approximation [3] - } \end{aligned}$ |
| 280:20 |  | $\begin{aligned} & \text { 213:22, 259:18 } \\ & \text { Administration }[3] \text { - } \end{aligned}$ | $\begin{aligned} & \text { 258:9, 258:10, 276:8, } \\ & 290: 13,290: 16 \end{aligned}$ | $\begin{aligned} & \text { 247:22, 264:21, } \\ & \text { 267:10 } \end{aligned}$ |
| 70 [3]-223:21, |  | $\begin{gathered} \text { 243:17, 244:2, 244:16 } \\ \text { administration [3] - } \end{gathered}$ |  |  |
| 292:5, 29 |  |  | amounts [5] - | $\begin{aligned} & \text { 267:10 } \\ & \text { April [1] - 234:22 } \end{aligned}$ |
| 76 [1] |  | $\begin{aligned} & \text { 232:10, 242:25 } \\ & \text { Administration's [4] } \end{aligned}$ | 213:13, 219:3, | $\begin{aligned} & \text { April [1] - 234:22 } \\ & \text { AR-171 [11] - 273:9, } \end{aligned}$ |
|  |  |  | analyses [1] - 242:13 <br> analysis [3] - 220:23, | 273:11, 273:13, |
|  |  | - 243:3, 244:19, |  | 74:2, 274:21, 299:7, 999:8, 299:9, 300:1, |
| 8 [1]-254:22 |  | $\begin{aligned} & \text { 244:22, 246:3 } \\ & \text { admission }[1] \text { - } \end{aligned}$ | $256: 12,267: 21$ | $\begin{aligned} & 299: 8,299: 9,300: 1, \\ & 300: 15 \end{aligned}$ |
|  |  | admission [1] - 255:6 | analytical ${ }_{[1]}$ - 271:6 | AR-171s [1] - 273:10 |
| 275:18, 276 |  | ADMITTED [1] |  | $\begin{aligned} & \text { area [2]-238:1, } \\ & \text { 271:8 } \end{aligned}$ |
| 80 [2] - 295:4, 296:4 |  |  | $\begin{aligned} & \text { 219:25 } \\ & \text { analyzed [2] - 225:8, } \end{aligned}$ |  |
| 815-6450[1]-209:18 |  | 211:9 <br> advantages [1] - <br> $220 \cdot 20$ |  | 271:8 <br> Armenian [1] - |
| 82 |  |  | $\begin{aligned} & \text { 272:10 } \\ & \text { analyzing [2] - } \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { 261:16 } \\ \text { Army [1] - 214:19 } \end{array}$ |
|  |  | $\begin{aligned} & \text { 220:20 } \\ & \text { advice }[1]-231: 6 \\ & \text { Advisors }[2]-230: 4, \end{aligned}$ |  |  |
|  |  |  | Andersen [1] | articles [1]-260:13 |
| 96 [1]-269:19 |  | $\begin{aligned} & \text { 238:11 } \\ & \text { advisors [1] - 231:14 } \end{aligned}$ | $\begin{aligned} & \text { 260:11 } \\ & \text { annual [2] - 237:9, } \end{aligned}$ | Aside [1] - 243:14 aside [1] - 229:22 assessed [1] - 263:2 |
| 96-1285 [2]-20 |  | advisors [1] - 231:14 <br> advisory [1] - 231:6 |  |  |
| 212:5 |  | Affairs [11]-246:20, | 269:10 |  |
| 975 [1] - |  | 274:14, 277:24, | Annual [1] - 300:21 <br> annuity [1] - 273:21 <br> Annuity [1] - 299:14 | assessed [1]-263:2 assessment [2] - |
|  |  | 286:20, 287:13, |  | $\begin{aligned} & \text { 263:5, 263:6 } \\ & \text { asset [2] - 228:17, } \end{aligned}$ |
|  |  | $\text { 289:1, 290:6, } 291: 10$ | $\begin{aligned} & \text { answer [3] - 235:13, } \\ & \text { 251:3, 257:19 } \end{aligned}$ | $\begin{aligned} & \text { 228:21 } \\ & \text { assets [4] - 229:7, } \end{aligned}$ |
|  |  | affects [1] - 230:11 affirm [1] - 220:1 agencies [4] - |  |  |
| 239:7, |  |  | ante [1]-234:19 | $\begin{aligned} & \text { 263:12, 263:17 } \\ & \text { assignment [2] - } \end{aligned}$ |
| 254:6, 255:7, 255 |  |  | anticipated [2] - |  |
| 99:1 |  | 212:20, 213:1, 242:9, | 234:16 | $\begin{aligned} & \text { 273:12, 274:18 } \\ & \text { assistant [1] - } \\ & 231: 15 \end{aligned}$ |
| a-ha [1]-215:2 |  | 246:7 | Antonio [1] - 255:25 |  |
| AB [2]-259:25 |  | $\begin{gathered} \text { agency }[2]-246: 20, \\ 246: 25 \end{gathered}$ | apologize [1] - |  |
| 260:1 able [7] |  | agent [1] - 239:23 | appear [1] - 256:6 <br> APPEARANCES ${ }_{[1]}$ - | associated [1] - |
| able 226:22, |  |  |  | $\begin{aligned} & \text { 260:16 } \\ & \text { associates }[1] \text { - } \end{aligned}$ |
| 270 |  | $214: 3,214: 6,230: 8 \text {, }$ | APPEARANCES ${ }_{[1]}$ 209:10 | $\begin{array}{\|l\|} \hline \text { 243:10 } \\ \text { assume [9] - 223:6, } \end{array}$ |
| 277:18, |  | 230:19 | application [1] - |  |
| above-entitled [1] |  | $\begin{gathered} \text { agree }[4]-217: 8, \\ 219: 1,245: 17,256: 18 \end{gathered}$ | 225:10 | 228:10, 232:11, |
| 303 |  |  |  | $\begin{aligned} & \text { 234:23, 234:25, } \\ & \text { 247:25, 252:12, } \end{aligned}$ |
| sol |  | agreed [2]-250:17, | 269:11, 292:23 <br> applies [1]-252:24 |  |
| 250:15 |  | $\begin{aligned} & \text { 256:15 } \\ & \text { ahead [4] - 233:23, } \end{aligned}$ |  | $271: 4,271: 5$ <br> Assume [1] - 246:19 |
|  |  |  | apply [1] - 221:20 |  |
| 259:25, |  | $235: 12,255: 19,275: 9$ | applying [1] - 251:8 | Assuming [2] - |
| - |  | $\begin{aligned} & \text { aided }[1]-210: 16 \\ & \text { al }[2]-209: 3,209: 6 \end{aligned}$ | approach [4] - | 229:3, 268:19 |
| ess [1] - 26 |  |  | 243:22, 281:14, |  |
| essible |  |  | $\begin{aligned} & \text { 294:9, 301:7 } \\ & \text { approaches [1] - } \end{aligned}$ | 220:23, 221:23, |
| 249:16, 251:19 |  | $\begin{aligned} & \text { 258:20, 258:22 } \\ & \text { allegedly [1] - } \\ & \text { 261:18 } \end{aligned}$ |  |  |
| accomplished |  |  | 301:10 | assumption [8] - |
|  |  |  |  |  |
| a |  | $\text { allotted }[1]-289: 15$allow [1] - 289:25 | $\begin{aligned} & 217: 12,230: 1, \\ & 260: 20,293: 2 \end{aligned}$ | $\begin{aligned} & \text { 223:7, 223:9, 223:19, } \\ & \text { 223:21, 224:3, 224:4, } \end{aligned}$ |
|  |  |  |  |  |


| $\begin{aligned} & \text { 224:7, 271:8 } \\ & \text { assumptions }[4] \text { - } \end{aligned}$ | B | $\begin{aligned} & \text { behind }[3]-219: 5 \text {, } \\ & \text { 249:11, } 249: 15 \end{aligned}$ | $\begin{aligned} & \text { 217:10, 217:11, } \\ & \text { 218:12, 218:17, } \end{aligned}$ | $\begin{aligned} & 257: 21,264: 8, \\ & 264: 10,267: 8 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 218:23, 219:5, 219:6, | $\text { B. } 2[1]-300: 20$ | belief [2]-252:8 | 218:21, 227:14 | borrows [4] - 234:12, |
| $\begin{array}{\|l\|} \hline 220: 2 \\ \text { assure [1] - 259:7 } \end{array}$ | backed [1] - 277:10 background [1] - | $\begin{aligned} & \text { 260:20 } \\ & \text { belong [4] - 228:24, } \end{aligned}$ | 227:23, 230:23, | bottom [7]-226:8, |
| Atlanta [1]-209:17 | 259:25 | 239:20, 248:5, 248:7 | 259:6, 270:12, 270:17 | 226:10, 233:19, |
| Attachment [38] - | backward [1] - 294:6 | belonged [1] | billions [1] - 230:23 | 240:19, 254:15, |
| 218:2, 218:6, 222:12, | balance [12] | 228:25 | bills [3] - 232:22, | 280:5, 295:4 |
| 267:21, 272:12, | 213:21, 214:1 | belonging [1] | 244:13, 264:13 | bound [1] - 296:6 |
| 272:20, 272:21, | 217:13, 227:14 | 222:24 | bit [4]-224:20, | Box [1] - 210:9 |
| 273:23, 274:5, 274:7, | 259:7, 259:10, | belongs [3] - 228:16, | 233:10, 235:16, 246:8 | BRADFORD ${ }_{[2]}$ |
| 274:16, 275:15, | 270:16, 276:13 | 239:4 | blanks [4]-281:5 | 211:5, 261:1 |
| 275:16, 275:23, | 276:17, 279:6, 280:9, | below [1] - 263:13 | 281:6, 281:17, 300:24 | Bradford [1] - 259:16 |
| 278:4, 278:17, 279:7, | 280:11 | [1] - 210:8 | blue [3]-301:1, | Branch [1] - 210:7 |
| 280:13, | $\begin{gathered} { }_{2} \mathbf{b}_{2} 8 \end{gathered}$ | rie | 301:4, 301:19 | kout [1] - 290:12 |
| 286:13, 290:21, | $259: 4,273: 17$ | $\begin{aligned} & \text { 250:19 } \\ & \text { benefit }[41] \end{aligned}$ | $\begin{array}{r} \text { bond [8]- 24 } \\ \text { 247:24, } 264: 11 \end{array}$ | [1] - 268:7 |
| 291:23, 293:6, | Bank [2]-234:5, | 216:25, 217:15, | 264:16, 264:20, | broader [1] - 238:13 |
| 294:17, 296:22, | 235:24 | 217:19, 218:11, | 266:1, 268:12, 270:10 | brokers [1] - 236:3 |
| $\begin{aligned} & \text { 297:1, 297:3, 297:16, } \\ & \text { 297:17, 298:23, } \end{aligned}$ | $\begin{aligned} & \text { bank [10]-212:17, } \\ & \text { 214:9, 214:10, } \end{aligned}$ | $\begin{aligned} & \text { 219:2, 219:22, 220:6, } \\ & \text { 220:24, 220:25, } \end{aligned}$ | bonded [2] - 276:6, 277:2 | brought [2]-247:13, |
| 298:24, 299:16, | 217:16, 249:10 | 221:1, 222:4, 222:6, | bonds [3] - 232:22, | budget [11] - 233:10, |
| $\begin{array}{\|c} 300: 20,301: 2,302: 6 \\ \text { attachment }[2] \text { - } \end{array}$ | $\begin{aligned} & 257: 3,270: 3,270: 4, \\ & 279: 3 \end{aligned}$ | $\begin{aligned} & 222: 8,224: 14,225: 1, \\ & 225: 10,225: 12, \end{aligned}$ | $\begin{aligned} & \text { 258:3, } 264: 13 \\ & \text { books }[1]-260: 13 \end{aligned}$ | 233:12, 236:9, 240:3, |
| 267:23, 299:5 | bankruptcy [2] | 226:16, 228:12, | boom [1] - 301:16 | 243:11, 243:14, |
| $\begin{aligned} & \text { attempt [2]-263:14, } \\ & \text { 271:6 } \end{aligned}$ | $\begin{array}{r} \text { 261:21, } 261: 2 \\ \text { banks }[15]-2 \end{array}$ | $\begin{aligned} & \text { 229:4, 250:21, 251:6, } \\ & 252 \cdot 1261 \cdot 9267 \cdot 21, \end{aligned}$ | borne [1] - 229:19 | 244:10, 244:19 |
| attention [6] - 265:7, | 228:11, 235:24, | $\begin{aligned} & 252: 1,261: 9,26 \\ & \text { 268:16, 268:20, } \end{aligned}$ | $\begin{aligned} & \text { borrow [31] - 215:7 } \\ & \text { 215:14, 215:16, } \end{aligned}$ | $\begin{aligned} & \text { budgeting [1] - } \\ & \text { 214:24 } \end{aligned}$ |
| 274:22, 279:17, | 248:4, 251:18, | 268:21, 268:23 | 215:18, 217:3, 217:5, | building [1] - 279:3 |
| 290:8, 296:20, 298:9 | 251:22, 251:23, | 269:4, 269:7, 269:10, | 217:10, 219:11, | buildup [1]-295:11 |
| Attorney [1] - 210:6 | 252:4, 252:18, | 269:20, 269:21, | 219:13, 220:12, | burden [1] - 229:19 |
| audience [1] - 296:9 | 261:19, 276:6, 277:2, | 270:14, 270:21, | 220:17, $221: 8$, | burdens [2]-229:20, |
| Audit [1] - 298:6 authority [6] - 213:4, | $\begin{aligned} & \text { 277:4, 290:13 } \\ & \text { bargain }[1]-235: 16 \end{aligned}$ | $\begin{gathered} \text { 270:24, 273:19, 279:4 } \\ \text { benefits [6]-216:14, } \end{gathered}$ | $\begin{aligned} & 221: 25,230: 23, \\ & 231: 24,232: 17, \end{aligned}$ | $\begin{aligned} & \text { 229:21 } \\ & \text { Bureau [3] - 231:13. } \end{aligned}$ |
| 213:14, 213:18, | base [3]-228:17, | 220:20, 263:3, 263:5, | 232:22, 234:13, | 231:19, 246:20 |
| $\begin{aligned} & \text { 213:21, 243:23, 247:5 } \\ & \text { authorize }[1] \text { - } \end{aligned}$ | $\begin{aligned} & \text { 228:21, 239:2 } \\ & \text { Based }[1]-256: 5 \end{aligned}$ | $\begin{aligned} & \text { 266:3, 269:12 } \\ & \text { best }[1]-292: 2 \end{aligned}$ | $\begin{aligned} & \text { 234:15, 234:25, } \\ & \text { 235:6, 235:12, } \end{aligned}$ | bureaus [1] - 232:1 |
| 213:16 | based [15] - 223 | ta [1] - 260:2 | 236:23, 237:1, | $\mathbf{u y}[1]-235: 25$ |
| authorized [3] - | 223:21, 224:6, 229:9, | better [5]-235:16, | $\text { 237:14, } 251: 9$ | $\mathbf{B Y} \mathbf{Y}^{43]} \text { - 212:12, }$ |
| $\text { 213:7, 214:14, } 246: 24$ | 235:13, 237:3, 238:5, 245:15, 245:19, | 266:21, 292:25, | $251: 21,253: 18$, $253: 19,264: 14$ | 218:3, 219:21, |
| authorizing [1] - 247:1 | $\begin{aligned} & \text { 245:15, 245:19, } \\ & \text { 253:1, 254:4, 258:9, } \end{aligned}$ | 294:8, 302:2 | 253:19, 264:14 borrowed [5] - | 225:23, 227:12, |
| auto [1] - 243:2 | 258:12, 258:13, | 214:12, 218:18, | $215: 15,220: 15,$ | :8, 239:11 |
| available [9] | 271:23 | 219:23, 222:20 | 221:9, 234:17, 234:20 | 1:25, 247:11 |
| 218:18, 229:2, 248:5, | basic [2] - 231:10, | 224:21, 239:3, | borrower [1] - | 19:23, 254:9, |
| 248:11, 252:4, | 252:2 | 252:25, 259:1 | 236:13 | :14, 255:21 |
| 253:17, 255:11, | basis [4]-237:6 | 262:17, 265:12 | borrowing [33] | $\text { 56:3, 261:4, } 261: 25$ |
| 264:16, 264:18 | 237:9, 252:8, 267:14 | 267:19, 269:6, 270:2, | 216:6, 216:12, | 262:24, 264:25, |
| Avenue [1]-210:13 | bearing [2]-247:17, | 271:8, 271:16, 281:8, | 219:16, 220:7, | 266:12, 267:22, |
| $\begin{aligned} & \text { average [3]-264:14, } \\ & \text { 264:21, 296:4 } \end{aligned}$ | $\begin{aligned} & \text { 266:19 } \\ & \text { becoming }[1]-216: 3 \end{aligned}$ | $\begin{aligned} & \text { 281:13, 294:5 } \\ & \text { beyond }[1]-231 \text { : } \end{aligned}$ | $\begin{aligned} & \text { 220:16, 221:4, } \\ & \text { 221:12, } 221: 15, \end{aligned}$ | 274:6, 274:12, 275:8, |
| avoid [3] - 217:4 | FORE ${ }_{[1]}-209: 9$ | idders [1]-239:22 | 221:17, 222:1, 222:4, | $\begin{aligned} & \text { 2/7:8, 27/:23, } \\ & 279: 16,281: 25, \end{aligned}$ |
| 217:13, 228:19 | gan [1] - 273:11 | big [5] - 227:25, | 222:5, 229:2, 229:15, | $4: 10,285: 15,$ |
| avoided [2]-219:15, | begin [1] - 268:16 | 232:25, 235:24 | 229:20, 231:12, | 6:7, 286:18, |
| 219:16 | beginning [5] | 246:1, 301:13 | 235:10, 237:3 | $: 12,288: 2,289: 3,$ |
| avoiding [2]-237:4, | 244:12, $261: 20$ | igger [3]-236:13, | 237:20, 237:22, | 0:7, 291:8, 293:19, |
| 267:8 | 274:18, 276:14, | 277:13, 287:23 | 247:23, 249:18, | 295:22, 296:19, |
| award [1] - 260:20 | $\begin{aligned} & \text { 280:12 } \\ & \text { behalf }[2]-250: 1 \end{aligned}$ | $\begin{aligned} & \text { bill [2]-247:15, } \\ & \text { 247:16 } \end{aligned}$ | $\begin{aligned} & \text { 251:25, 252:6, } \\ & \text { 252:15, 253:3. } \end{aligned}$ | 298:8, 301:23 |
| $\begin{aligned} & \text { aware [2]-218:16, } \\ & 277 \cdot 9 \end{aligned}$ | 264:4 | billion [14] - 217:6, | 257:10, 257:12, |  |


| C |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| ```Cabinet [1] - 243:23 cabinet [1] - 246:14 calculate [2] - 286:13, 299:9 calculated [9] - 251:15, 271:21, 271:25, 276:10, 285:7, 292:14, 293:15, 293:16, 294:2 Calculated [1] - 299:16 calculation [20] - 225:15, 226:16, 247:25, 269:23, 272:24, 276:9, 276:23, 277:18, 283:2, 283:13, 283:23, 288:5, 288:11, 288:15, 288:21, 289:7, 289:12, 289:16, 289:23, 297:18 Calculation [1] - 302:7 calculations [4] - 250:1, 272:13, 277:10, 286:22 calculus [1] - 252:17 California [1] - 260:6 cannot [1] - 222:25 capita [1] - 273:22 Capita [1] - 299:18 Capitol [1] - 243:21 career [2]-225:25, 261:12 carefully [1] - 225:8 Carolina [1] - 209:25 carries [1] - 231:20 case [16]-213:15, 220:19, 225:9, 228:23, 229:3, 234:10, 248:7, 252:1, 260:16, 260:21, 261:19, 263:1, 263:2, 266:11, 293:3, 302:3 Cash [1] - 228:7 cash [41]-212:22, 212:23, 212:24, 214:12, 214:14, 214:17, 215:6, 215:8, 215:9, 215:11, 215:12, 215:14, 215:18, 215:21, 216:4, 216:9, 216:19, 216:21, 216:25, 217:3, 217:15, 220:9, 220:22, 222:10, 228:13, 229:1, 229:7,``` | ```234:24, 235:1, 235:9, 237:2, 242:15, 251:13, 296:14 cashed [2] - 272:6 categories [6] - 233:13, 282:14, 286:21, 286:25, 288:19, 294:16 categorized [1] - 254:19 category [7] - 233:16, 233:19, 240:19, 250:14, 271:18, 278:14, 288:13 centers [2] - 235:24, 236:7 certain [2] - 218:23, 219:5 certainly [2] - 240:18, 260:23 CERTIFICATE [1] - 303:1 certify [1] - 303:3 cetera [2]-231:17, 247:19 Chairman [1] - 230:4 chairman [3] - 244:17, 260:10, 260:11 chambers [1] - 212:3 chance [1] - 294:15 change [5] - 227:17, 267:16, 267:18, 293:1, 294:22 changes [2] - 232:9, 243:12 characterize [1] - 258:17 chart [4]-228:2, 268:9, 273:16, 273:21 charts [1]-226:6 Chase [1] - 235:25 check [6] - 213:3, 213:4, 213:16, 214:20, 215:3, 254:24 checkbook [1] - 214:9 checked [1] - 287:8 checking [3] - 217:6, 239:3, 276:13 checks [12] - 212:23, 213:1, 213:2, 213:19, 246:23, 247:4, 252:10, 253:14, 271:14, 271:16, 272:5 child [3] - 270:5, 270:6, 270:7``` | CHRISTOPHER [1] - <br> 210:2 <br> churning [1] - <br> 216:11 <br> CIHO [2] - 228:4, 228:5 <br> Circular [7] - 238:20, 239:7, 239:9, 240:14, 254:6, 255:7, 255:11 circulars [1] - 240:14 circumstances [2] 260:21, 281:14 cited [1] - 217:20 <br> Civil [3]-209:2, <br> 210:8, 212:5 <br> claim [6]-214:8, <br> 214:9, 214:17, 218:7, <br> 218:16 <br> claimed [1] - 248:8 <br> claiming [1] - 217:1 <br> clarification [1] - <br> 279:25 <br> class [1] - 266:5 <br> clear [2]-216:13, <br> 273:9 <br> clearly [2]-227:1, <br> 294:5 <br> Cobell [1] - 260:16 <br> COBELL [1] - 209:2 <br> collected [5] - <br> 250:18, 263:7, 263:8, <br> 264:4 <br> collection [1] - <br> 297:13 <br> collections [1] - <br> 297:12 <br> college [1] - 270:6 <br> COLUMBIA [1] - <br> 209:1 <br> column [28] - <br> 218:11, 219:2, <br> 219:18, 219:22, <br> 219:24, 222:13, <br> 249:25, 268:11, <br> 268:12, 268:18, <br> 271:3, 271:18, <br> 272:14, 272:15, <br> 272:25, 273:2, <br> 273:24, 274:1, 274:8, <br> 292:2, 292:4, 293:14, <br> 293:15, 299:10, <br> 299:13, 299:17, <br> 299:19 <br> Column [1]-299:14 <br> columns [3] - <br> 224:23, 268:8, 268:13 <br> coming [5] - 217:24, 223:23, 226:16, | ```214:15, 219:2, 242:19, 245:21, 249:1 commented [1] - 248:16 commenting [1] - 216:23 Commerce [1] - 244:20 Commercial [1] - 210:7 commercial [8] - 248:3, 248:4, 251:18, 251:22, 251:23, 252:4, 252:17, 257:3 commingled [1] - 257:4 Commissioner [29] - 231:21, 238:6, 238:8, 238:14, 238:15, 238:24, 240:11, 240:12, 240:25, 241:6, 241:19, 241:20, 249:3, 249:13, 250:17, 255:22, 256:5, 256:15, 256:16, 274:13, 276:1, 277:24, 282:1, 284:8, 285:18, 286:20, 287:13, 288:25, 290:5 commissioner [4] - 231:22, 232:2, 232:3 Committee [1] - 243:9 committee [10] - 232:6, 232:7, 243:4, 243:5, 243:8, 244:14, 244:17, 244:18, 260:12 common [1] - 253:23 compared [1] - 220:20 compares [1] - 265:5 competent [3] - 282:17, 287:25, 289:18 complete [2] - 241:5, 272:17 complicated [3] - 231:3, 231:4, 258:22 comporting [1] - 243:19 compounded [1] - 295:25 compromise [1] - 243:21 computations [1] - 220:1``` | ```268:13, 271:23, 274:2 computer [3] - 210:16, 226:5, 294:21 computer-aided [1] - 210:16 conceivable [2] - 235:7, 235:8 Conceivably [1] - 235:15 concept [1] - 235:2 conceptually [1] - 229:23 concerned [1] - 243:15 concludes [1] - 259:14 conclusion [4] - 256:15, 262:22, 290:1, 295:10 conferred [4] - 218:11, 219:2, 220:6, 226:16 confidence [1] - 257:1 confirm [1] - 220:2 confirming [1] - 241:4 confirms [1] - 298:13 confluence [1] - 244:6 confusion [1] - 249:8 Congress [7] - 242:21, 243:10, 244:1, 244:3, 244:11, 244:12, 244:13 Congressman [1] - 228:2 conjunction [1] - 261:8 consequences [1] - 263:21 conservative [1] - 281:11 consider [3] - 229:1, 247:24, 267:14 considerations [2] - 234:1, 245:16 considered [5] - 247:16, 251:20, 251:24, 252:21, 280:6 considering [1] - 295:1 consistent [5] - 243:16, 257:15, 257:17, 301:9, 301:11 constant [1] - 249:8 constituted [2] - 262:18, 262:19``` |



| deposited [2] | 241:15, 241:18 | 246:15, 247:13 | [1]-238:9 | 294:8 |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 290:13, 290:17 } \\ & \text { deposits }[3]-215 \end{aligned}$ | 249:5, 254:19 | 252 | drawdowns [1] - 216:9 | elements [1] - 282:20 |
| 240:20, 299:12 | [2] - | 218 | ng [2] - 21 | eliminate [2] - |
| eputy [1] - 259:18 | 261 | displayed ${ }^{2}$ | 217: | 22 |
| [1]-212:5 | direct [3] - 246:6, | 249:20, 255:23 | drawn [1]-271:14 | tes |
| derivative [1] - | 263 | ish |  | 215 |
| $\begin{aligned} & \text { 230:14 } \\ & \text { Derived }[1]-300: 21 \\ & \text { derives }[1]-220: 21 \\ & \text { describe }[2]- \end{aligned}$ | [5] - 212:21, | 214:7, 239:3 | due [5] - 216:3, | IOTT [1] - 209:15 |
|  | 241:18, 246:17 | DISTRICT [3] | 222:22, 256:25 | ELOUISE [1] - 209:2 emanated [1]-244:1 embodies [1] - 223:7 |
|  | $\begin{aligned} & \text { 251:17, } 251: 24 \\ & \text { director [10] - } \end{aligned}$ | $\begin{array}{r} \text { 209:1, 209:1, 209: } \\ \text { divided }[1]-237: \end{array}$ | $\begin{aligned} & \text { 261:18, 265:16 } \\ & \text { duly [2] }-212: 10 \end{aligned}$ |  |
| $\begin{aligned} & \text { 233:24, 234:3 } \\ & \text { described }[6] \text { - } \\ & \text { 220:5, 238:16, 253:8, } \end{aligned}$ | $\begin{aligned} & 223: 10,235: 23, \\ & 236: 9,237: 21,238: 2 \end{aligned}$ | Division [1]-210: | 261: | $\begin{gathered} \text { 223:6, 234:2, 285:3 } \\ \text { employment }[1] \text { - } \end{gathered}$ |
|  | 242:4, 242:20, | 22 | dumped [1] - 270 |  |
| $\begin{gathered} \text { 286:1, 294:5, } 299: 7 \\ \text { description [2] - } \end{gathered}$ | 243:15, 244:19 | 226:3, 239:13, | During [2] - 267:3, | $\begin{aligned} & \text { 230:10 } \\ & \text { empowered }[1] \text { - } \end{aligned}$ |
|  | 24 | 255:10, 265:4, 265:8 | 267 |  |
| $\begin{aligned} & \text { 234:1, 283:20 } \\ & \text { descriptions [1] - } \end{aligned}$ | Director [1] - 230:3 <br> director's [1] - 243:1 | $\begin{aligned} & \text { 265:18, 274:23, } \\ & \text { 278:1, 278:3, } 278 \end{aligned}$ | during [8] - 216:7 | $\begin{aligned} & \text { 247:4 } \\ & \text { enacted }[1]-244: 3 \end{aligned}$ |
| 257:14 | DIRK [1] - 209:5 disagreeing [1] | $\begin{aligned} & 278: 7,279: 15 \\ & 279: 18,279: 1 \end{aligned}$ | $\begin{aligned} & \text { 276:17, 279:24, } \\ & \text { 282:12, 298:3, } 29 \end{aligned}$ | $\begin{aligned} & \text { end }[11]-212: 21 \text {, } \\ & \text { 215:22, 216:8, } \end{aligned}$ |
| $\begin{aligned} & \text { 290:12 } \\ & \text { designed }[1]-259: 2 \\ & \text { detailed }[3]-271: 7, \end{aligned}$ | 241 | 282:3, 285:17 |  | $\begin{aligned} & 218: 10,220: 24, \\ & \text { 247:16, 247:17, } \\ & \text { 269:8, 269:24, } \end{aligned}$ |
|  | disburse [1] - 270:25 disbursed [7] - | $\begin{aligned} & \text { 285:18, 286:19, } \\ & \text { 289:20, 290:9, 291:9, } \end{aligned}$ | E |  |
| $\begin{aligned} & \text { 271:14, 291:3 } \\ & \text { details }[9]-213: 5, \end{aligned}$ | 221:7, 223:8, 250:19, <br> 251:5, 264:6, 268:22, | $\begin{gathered} \text { 297:23, 298:1, 300:9 } \\ \text { documents [4] - } \end{gathered}$ | $\begin{aligned} & \text { early [3]-228:11, } \\ & 273: 1,301: 14 \end{aligned}$ | $\begin{aligned} & \text { 270:15, 281:13 } \\ & \text { ended }[7]-274: 15, \end{aligned}$ |
| $\begin{aligned} & \text { 230:6, 232:5, 232:9, } \\ & 240: 17,243: 11, \end{aligned}$ | 272:7 | 272:23, 274:20 275:2, $275: 10$ | $\begin{aligned} & \text { earn [2]-266:18, } \\ & \text { 266:24 } \end{aligned}$ | $\begin{aligned} & \text { 277:25, 279:13, } \\ & \text { 284:8, 287:14, 289:1, } \end{aligned}$ |
| $\begin{gathered} \text { 268:1, 268:4, 268:10 } \\ \text { determination }[3] \text { - } \end{gathered}$ | 268:11, 271:4, 271:6, | dollars [2] - 258: | earned [10] - 260:2, | $\begin{aligned} & \text { 290:6 } \\ & \text { ending }[1]-286: 19 \end{aligned}$ |
|  | 271:18, 292:2, 292:4, | 291 | 260:3, 260:4, 266:17, |  |
| $\begin{aligned} & \text { 232:16, 264:9, 281:3 } \\ & \text { determine }[2] \text { - } \end{aligned}$ | 293:1, 293:4, 293:14, | mestic [1] | 266:23, 273:16, | endorsement [1] - $238: 5$ |
|  | $\begin{aligned} & 294: 4,294: 11,295: 3, \\ & 300: 7 \end{aligned}$ | 246 | $\begin{aligned} & \text { 276:16, 277:11, } \\ & \text { 277:17, 279:22 } \end{aligned}$ | 238:5 |
| $\begin{aligned} & \text { 263:14, } 270: 21 \\ & \text { determined }[1] \text { - } \end{aligned}$ | Disbursement [1] | $231: 1$ | earnest [1] - 239:22 | $\begin{aligned} & \text { ends [3] - 279:5, } \\ & 301: 19 \end{aligned}$ |
| $\begin{aligned} & \text { 239:22 } \\ & \text { develop }[3]-261: 7, \end{aligned}$ | $\begin{aligned} & \text { 302:7 } \\ & \text { disbursements [31] - } \end{aligned}$ | $\begin{aligned} & \text { donated }[1]-240: 22 \\ & \text { done }[5]-218: 25, \end{aligned}$ | $\begin{aligned} & \text { earning [2]-218:1, } \\ & 277: 3 \end{aligned}$ | enforce [1] - 263:21 <br> engaged [1] - 237:22 |
| 262:25, 263:2 developed $[4]$ | $\begin{aligned} & 216: 15,219: 24 \\ & 224: 23,240: 21 \end{aligned}$ | $\begin{aligned} & 221: 25,261: 1 \\ & 281 \cdot 19 \quad 296 \cdot 1 \end{aligned}$ | $\begin{aligned} & \text { easier }[1]-272: 2 \\ & \text { easy }[1]-294: 20 \end{aligned}$ | Enron [1] - 261:22 ensure [1] - 259:7 |
| 260:15, 260:16, | $258: 11,258: 14$ | $\operatorname{door}_{[1]}-212$ | economic [2] - |  |
| $\begin{aligned} & \text { 261:11, } 266: 25 \\ & \text { developing [2] } \end{aligned}$ | 261:8, 268:19, | DORRIS [1] - 209:15 | 230:18, 261:7 | entering [1] - 226:20 <br> enters [1] - 269:1 |
|  | 269:19, 270:2, 271:2, | ts [1] - 301:5 | Economic [4] |  |
| 266:13, 266:16difference [16] | 271:17, 271:20, | double [3]-273:1 | 230:4, 234:6, 238:10, | $\begin{aligned} & \text { enters [1] - 269:1 } \\ & \text { Entire [1] - 255:11 } \end{aligned}$ |
|  | 271:21, 271:23, | $275: 11,277: 14$ | 246:13 | entire [3]-239:12, |
| difference [16] 214:12, 214:16, | $\begin{aligned} & \text { 272:3, 272:5, 272:16, } \\ & \text { 276:15, 276:17, } \end{aligned}$ | $\begin{aligned} & \text { down [12]-213: } \\ & \text { 230:6, 230:20, } \end{aligned}$ | $\begin{array}{r} \text { economics [8] } \\ \text { 236:10, } 238: 12 \text {, } \end{array}$ | $\begin{aligned} & \text { 255:9, 270:14 } \\ & \text { entitled [1]-303:5 } \end{aligned}$ |
| 224:1, 224:21, | 291:5, 292:12 | $233: 1$ | 253:23, 259:23 | entitled [1] - 303:5 entitlement [2] - |
| $\begin{aligned} & \text { 252:25, 259:1, } \\ & \text { 262:17, 265:12, } \end{aligned}$ | 292:22, 292:25 | 40:1, | :4, 260:7, 260:9 | entitlement [2] - 213:13, 230:13 |
|  | 293:24, 294:2 | 246:2, 250:4, 254:15, | 260:1 | envelope [3] - |
| $\begin{aligned} & \text { 267:11, 267:15, } \\ & \text { 269:6, 293:9, 295:24, } \end{aligned}$ | 294:13, 297:2 | 29 | nomy [1] - 266:2 | $\begin{aligned} & \text { 295:17, 296:12, } \\ & \text { 296:14 } \end{aligned}$ |
|  | Disbursements [1] | downwards [1] | educated [1] |  |
| $\begin{aligned} & \text { 296:1 } \\ & \text { differences [1] - } \end{aligned}$ | 297:25 <br> disbursing [1] | $\begin{aligned} & \text { 295:12 } \\ & \text { DR [4] - 211:3, 211:5, } \end{aligned}$ | 301:16 <br> effect [5] - 245: <br> 245:11, 246:23, | $\begin{aligned} & \text { equal [2]-270:10, } \\ & \text { 285:7 } \end{aligned}$ |
| 270:2 ${ }^{\text {different [15] - }}$ | $\begin{aligned} & \text { 276:6 } \\ & \text { disclaimed } \end{aligned}$ | $\begin{aligned} & \text { 212:9, 261:1 } \\ & \operatorname{Dr}_{[15]-212: 6,} \end{aligned}$ | $\begin{aligned} & \text { 245:11, } 246: 23 \\ & \text { 295:10, 295:12 } \end{aligned}$ | equation [1] - 292:16 equivalent [1] - |
| 214:17, 214:23,21:20, $241: 17$ | 256:24 | 241:13, 247:12, | effects [3] - 246:1, | $\begin{aligned} & \text { 276:13 } \\ & \text { Eric [1] - 212:3 } \end{aligned}$ |
|  | uss [1] - 246:10 | 249:24, 251:2, | 296:18 |  |
| $\begin{aligned} & \text { 221:20, 241:17, } \\ & 242: 18,242: 19, \end{aligned}$ | discussed [1] - | 253:21, 254:10, | effort [1] - 263:23 <br> eight ${ }_{[1]}$ - 256:4 | $\begin{aligned} & \text { especially }[3] \text { - } \\ & 230: 13,243: 7,243: 24 \end{aligned}$ |
| 243:22, 246:9, 256:7, <br> $282 \cdot 14,286 \cdot 2,286 \cdot 3$ | $\begin{aligned} & \text { 245:11 } \\ & \text { discussic } \end{aligned}$ | $\begin{aligned} & \text { 256:4, 256:11, } \\ & \text { 256:14, 259:13, } \end{aligned}$ | eight $[1]$ - 256:4 <br> either [7]-243:4 |  |
| 288:19, 296:12 | $\text { 217:21, } 230$ | $\begin{aligned} & 259: 14,259: 19, \\ & \text { 259:16, } \end{aligned}$ | 251:17, 252:1, | ESQUIRE [13] |
|  | 239:18, 245:13, | 259:23, 261:5 | 252:13, 253:1, 271:8, | 209:15, 209:19, |


| ```209:19, 209:23, 209:23, 210:1, 210:1, 210:2, 210:2, 210:3, 210:6 essentially [2] - 214:12, 251:4 establishes [1] - 260:20 estimate [6] - 221:17, 261:9, 264:5, 271:16, 272:14, 301:7 Estimated [1] - 300:22 estimating [2] - 220:19, 264:9 et [4] - 209:3, 209:6, 231:17, 247:19 evaluate [1] - 223:2 evaluated [1] - 223:20 event [1] - 229:4 eventually [2] - 229:21, 279:5 evidence [8] - 223:22, 255:16, 272:2, 277:16, 290:25, 294:10, 294:14, 294:15 EVIDENTIARY \({ }_{[1]}\) - 209:8 ex [2] - 234:14, 234:19 exact [4]-242:24, 265:4, 296:16, 296:17 Exact [1] - 286:25 exactly [4] - 212:19, 257:10, 284:16, 286:1 Exactly [2]-285:11, 286:3 EXAMINATION \([5]\) - 212:11, 247:10, 254:8, 255:20, 261:3 examine [1] - 281:5 example \([7]\) - 214:19, 221:10, 225:2, 231:21, 261:15, 267:4, 273:20 exceed [2]-215:9, 217:24 exceeded [1] - 215:21 exceeds [1] - 235:10 Excel [1] - 294:22 Except [1] - 301:13 excerpt [1] - 239:8 excess [2]-235:9, 266:19 excise [1]-233:3 exclude [1] - 240:2 excluded [1] -``` | 275:12 <br> excluding [1] - <br> 299:11 <br> Excuse [5] - 216:12, <br> 234:11, 268:5, <br> 286:10, 298:10 <br> excuse [3]-227:21, <br> 230:14, 297:2 <br> excused [1]-259:14 <br> executive [1]-244:7 <br> Exhibit [35] - 254:13, 255:6, 255:7, 261:24, <br> 262:4, 264:24, <br> 267:21, 274:11, <br> 275:20, 276:3, <br> 277:22, 278:20, <br> 279:12, 280:15, <br> 281:24, 284:7, <br> 284:11, 284:21, <br> 284:23, 286:17, <br> 287:11, 287:17, <br> 288:25, 290:5, 291:7, <br> 291:24, 292:8, <br> 296:21, 297:6, 298:5, <br> 300:10, 300:11, <br> 300:19, 302:6 <br> exhibit [14] - 223:7, <br> 225:21, 226:8, 233:5, <br> 239:8, 262:7, 262:9, <br> 265:1, 272:9, 279:1, <br> 280:15, 284:25, <br> 297:7, 300:18 <br> Exhibits [1] - 255:16 <br> exhibits [1] - 293:21 <br> expand [1] - 233:9 <br> expect $[4]-232: 15$, <br> 240:18, 245:16, <br> 301:11 <br> expectations [4] - <br> 236:6, 236:12, 237:3, <br> 237:17 <br> expected [1] - <br> 258:10 <br> expend [1] - 248:15 expenditure [1] 213:7 <br> expenditures [3] - <br> 215:16, 215:19, <br> 216:22 <br> experience [10] - <br> 223:10, 232:14, <br> 232:16, 238:9, <br> 238:10, 238:11, <br> 242:14, 245:15, <br> 245:19, 262:10 <br> expert [4]-236:11, <br> 244:25, 259:23, <br> 260:19 <br> expertise [5] - <br> 238:13, 248:21, | ```252:14, 253:2, 256:24 explain [9]-213:6, 267:25, 268:2, 268:10, 268:15, 269:25, 278:11, 296:18, 299:8 explained [2] - 214:16, 294:12 explaining [1] - 262:17 explanation [1] - 295:6 explicitly [2] - 244:9, 279:4 expressed \({ }_{[1]}\) - 246:7 expression [1] - 228:4 extend [1] - 238:1 extent [6]-237:12, 262:21, 277:9, 277:11, 277:16, 302:2 extra [2]-217:9, 253:19```F <br> fact $[15]-221: 2$, <br> 224:12, 234:17, <br> 235:1, 240:24, <br> 250:12, 252:5, <br> 252:13, 252:16, <br> 253:3, 253:11, 271:1, <br> 284:13, 291:3, 292:24 <br> fact-based $[1]-$ <br> 235:13 <br> factor $[4]-266: 15$, <br> $266: 20,296: 5,298: 2$ <br> facts $[1]-235: 14$ <br> failure $[1]-263: 21$ <br> fair $[4]-226: 15$, <br> $253: 21,263: 15$, <br> $267: 10$ <br> fairly $[2]-235: 21$, <br> $259: 24$ <br> falls $[1]-233: 22$ <br> familiar $[5]-244: 23$, <br> $248: 19,248: 21$, <br> 262:8, $271: 10$ <br> far $[5]-218: 16$, <br> $229: 22,233: 11$, <br> $236: 23,270: 20$ <br> fashion $[1]-274: 2$ <br> Federal $[2]-217: 17$, <br> $234: 5$ <br> federal $[15]-217: 22$, <br> $219: 10,220: 12$, <br> $221: 15,224: 15$, <br> 229:25, 247:3, 248:9, <br> 248:10, 251:18, | ```251:19, 252:2, 252:9, 259:4, 259:10 fellow [1] - 240:8 felt [5] - 267:9, 281:11, 292:22, 294:5, 294:7 few [5] - 212:4, 232:21, 246:19, 247:12, 280:21 fictitious [2] - 221:21, 221:22 field [1] - 260:9 fifth [4]-233:7, 240:1, 275:6, 275:7 figure [14] - 218:22, 219:9, 219:10, 219:12, 219:20, 223:15, 223:21, 226:15, 226:18, 274:16, 290:18, 294:19, 295:20 figures [7]-223:1, 274:24, 278:8, 278:22, 280:22, 288:22 filed [3] - 218:6, 266:10, 268:6 fill [2] - 268:3, 281:4 filled [1] - 300:24 filling [2] - 281:6, 281:17 final [7] - 246:19, 249:19, 255:7, 271:7, 281:10, 282:21, 296:7 finally [2] - 288:18, 289:20 finance [4]-231:15, 231:16, 236:12, 260:10 Finance [1] - 243:9 finances [1] - 229:10 financial [6] - 242:16, 259:23, 260:4, 260:7, 260:9, 260:14 Financial [1] - 231:11 First [2] - 247:12, 290:23 first [11] - 216:14, 219:20, 244:11, 268:17, 269:1, 271:22, 272:20, 274:4, 275:17, 284:19, 301:16 fiscal [22] - 226:9, 244:11, 274:14, 277:25, 279:13, 279:15, 280:12, 281:20, 283:14,``` | ```284:8, 285:17, 286:2, 286:19, 286:24, 287:13, 289:1, 290:6, 291:16, 291:18, 291:25, 293:20, 297:13 fit [1] - 276:8 five [9] - 217:6, 217:11, 227:22, 230:23, 267:12, 276:3, 284:14, 284:15, 296:5 floor [1] - 243:5 Floor [1] - 209:13 flowed [3] - 270:19, 270:20, 271:2 fluctuations [1] - 232:19 flush [2] - 234:23, 235:6 FMS [5] - 231:12, 231:18, 231:22, 232:2, 232:3 focus [5] - 224:19, 262:6, 268:9, 297:7, 298:11 follow [1] - 247:12 following [3] - 269:3, 269:4, 284:13 follows [4] - 212:10, 222:16, 261:2, 269:17 foot [5] - 273:15, 273:21, 278:18, 285:5, 287:9 footed [1] - 275:25 footnote [2] - 265:23, 300:4 foots [2]-275:17, 286:15 FOR [1] - 209:1 forecast [3]-230:12, 230:13, 234:19 forecasts [1] - 258:13 foregoing [1] - 303:3 forever [1] - 222:14 forgot [1] - 265:4 former [5]-231:21, 231:22, 238:6, 240:12, 240:25 forth[7] - 222:18, 223:8, 223:14, 237:5, 237:23, 238:13, 277:6 forward [9]-244:15, 258:16, 269:2, 269:22, 270:14, 273:2, 273:7, 273:24, 295:25 foundation [1] - 265:18``` |
| :---: | :---: | :---: | :---: | :---: |


| four [2] - 240:13, | GAO [1] - 238:8 | 273:11, 301:11 | government's [6] - | held [12] - 222:14, |
| :---: | :---: | :---: | :---: | :---: |
| 287:2 | gas [3]-283:19, | glasses [1] - 245:7 | 212:17, 222:3 | 228:11, 229:1, |
| fourth [7]-278:7, | 285:1, 285:23 | GLEN [1] - 210:3 | 226:23, 227:7, 227:9, | 239:21, 239:23, |
| 278:21, 297:7, 298:9, | gather [1] - 255:14 | goal [1] - 243:18 | 248:10 | 246:22, 249:4, |
| 298:10, 298:16 | gee [1]-230:22 | goosey [1] - 242:18 | graduate [1] - 238:12 | 251:22, 251:23, |
| Fourth [1] - 209:24 | General [4]-212:16, | Government [3] | graphical [1] - | 256:7, 268:21, 277:12 |
| Franklin [1] - 210:8 | $214: 5,241: 16$ | 291:10, 299:16, | 300:12 | help [1] - 256:12 |
| fraud [1] - 248:8 | general [4]-213:4, | 300:22 | gray [1] - 271:8 | helps [1] - 270:1 |
| free [3]-216:20, | 213:6, 240:16, 241:15 | government [118] - | grazing [2]-283:11, | high [5] - 230:22, |
| 217:15, 251:13 | generality [1] | 213:6, 215:5, 215:17, | 289:11 | 232:13, 235:1, |
| free-roaming [2] | 257:20 | 215:19, 215:20, | eat [1] - 217:2 | 247:16, 257:20 |
| 217:15, 251:13 | Generally [2] - | 215:22, 215:25, | greater [1] - 234:16 | higher [3]-246:13, |
| full [1] - 243:4 | $264: 9,267: 16$ | 216:2, 216:14, | Gregg [17]-226:22, | 265:14, 265:25 |
| function [1]-231:2 | generally [7] - | 216:21, 216:25, | 227:1, 231:21, | highest [1] - 268:2 |
| Fund [1] - 244:24 | 218:25, 219:1, | 217:14, 217:22, | 238:24, 240:12, | highlight [2] - |
| fund [19]-213:16, | 261:14, 264:1, 264:2, | $\begin{aligned} & 217: 25,219: 4, \\ & 219: 10.220: 8 \end{aligned}$ | 240:25, 241:6, | 272:22, 287:24 |
| $\begin{aligned} & \text { 213:22, 213:23, } \\ & 214: 1,229: 16, \end{aligned}$ | 264:3, 267:25 | $\begin{aligned} & 219: 10,220: 8, \\ & 220: 12,220: 15 \end{aligned}$ | 241:12, 241:19, | highlighted [30] - |
| 237:16, 237:17 | 229:21 | 220:19, 220:21 | 255:22, 256:15, | 267:12, 274:7, |
| 238:16, 240:2 | generic [1]-238:25 | 221:1, 221:6, $221: 9$, | 256:16 | 274:24, 275:2, |
| 240:11, 240:25, | generically [3] - | 221:13, 221:15, | Gregg's [8]-213:24, 238.6, 238.8, 238.14 | $\begin{aligned} & 275: 10,275: 24, \\ & 278 \cdot 8 \text { 278.21 } \end{aligned}$ |
| 241:13, 248:20, | $245: 22,247: 3,254: 25$ | $\begin{aligned} & \text { 221:18, 221:22, } \\ & \text { 221:23. 221:24. } \end{aligned}$ | 238:6, 238:8, 238:14, | 278:8, 278:21, <br> 279:19, 280.22 |
| 254:18, 256:6, 265:5, | Georgia [1] - 209:17 | $\begin{aligned} & 22 \\ & 22 \end{aligned}$ | $\text { 238:15, } 241: 20,$ | 279:19, 280:22, |
| 265:25, 266:18 fundamentally [1] - | GINGOLD [71] - | 222:14, 224:15, | group [1] - 246:14 | 282:23, 283:6, |
| $268: 13$ | 209:11, 209:12, | 224:16, 225:16, | groups [1]-231:6 | 283:17, 284:2, |
| funds [54] - 214:12, | 259:16, 259:19, | $\begin{aligned} & \text { 226:11, 227:13, } \\ & \text { 228:12, 228:16, } \end{aligned}$ | guess [7] - 217:2, | $\begin{aligned} & 285: 16,285: 24, \\ & 287 \cdot 19 \text { 287•2? } \end{aligned}$ |
| $\begin{aligned} & \text { 214:13, 222:17, } \\ & \text { 222:18. } 238: 22 . \end{aligned}$ | $\begin{aligned} & \text { 259:22, } 260: 25, \\ & 261 \cdot 4 \quad 261 \cdot .23 \end{aligned}$ | 229:4, 229:6, | 220:18, 248:7, |  |
| $\begin{aligned} & 222: 18, \\ & 239: 19, \end{aligned}$ | $\begin{aligned} & 261: 4, \\ & 261: 2 \end{aligned}$ | 229:11, 229:16, | $301: 15,301: 1$ | 289:18, 290:9, |
| 240:19, 242:3, 248:3, | 264:23, 264:25, | 230:1, 230:12, | GUILDER [1] - | 291:14, 299:5 |
| 248:4, 248:15, 249:4 | 266:6, 266:10, | 234:12, 234:20, 234:23. 234:24. | 209:19 | highlighting [3] - |
| 249:5, 250:2, 250:5, | 266:12, 267:20, | 234:23, 234:24, <br> $234 \cdot 25,235 \cdot 2,235 \cdot 4$ |  | $288: 4,301: 3,301: 5$ |
| $250: 10,250: 12$ | $267: 22,274: 4,274: 6,$ | $\begin{aligned} & \text { 234:25, 235:2, 235:4, } \\ & 235: 25,236: 4, \end{aligned}$ | H | highly [1] - 232:12 |
| 252:10, 252:24, | 275:7, 275:8, 275:16, | 236:12, 236:18, | $\text { half }[4]-217: 11$ | historical [1] - |
| 252:25, 253:4, | 275:19, 275:23, | $\begin{aligned} & 239: 20,239: 21, \\ & 239: 23,240: 4 \end{aligned}$ | $\begin{aligned} & \text { 224:19, 292:16, } \\ & \text { 292:17 } \end{aligned}$ | $274: 19$ |
| 253:16, 254:7, | 276:3, 277:8, 277:21, | $\begin{aligned} & 239: 23,240: 4, \\ & 240: 21,240: 22 \end{aligned}$ | Hand [1] - 259. | hold [1] - 236:11 |
| 254:10, 254:15, | 277:23, 279:11, | $\begin{aligned} & 240: 21,240: 22 \\ & 241: 10,242: 16 \end{aligned}$ | Hand [1]-259 hand [10]-23 | Hold [1] - 297:20 |
| $\begin{aligned} & 254: 16 \\ & 254: 25 \end{aligned}$ | $\text { 279:16, } 281: 23,$ | 247:4, 248:9, 248:24, | $236: 3,237: 2,246: 5$ | holding [2] - 222:10, $261: 10$ |
| 261:18, 263:19, | 284:10, 285:12, | 249:17, 250:2, | 249:25, 253:5, 276:4, | Holocaust [3] - |
| 264:4, 264:5, 264:6, | 285:15, 286:5, 286:7, | 250:18, 250:21, | $278: 23,297: 8$ | 261:16, 261:19 |
| 264:8, 264:21, | $286: 16,286: 18$ | $\begin{aligned} & \text { 251:7, 251:8, 251:19, } \\ & 252: 2,252: 5,252: 9, \end{aligned}$ | $\begin{aligned} & \text { hands [2]-243:1, } \\ & 276: 6 \end{aligned}$ | Honor [45] - 225:20, |
| $\begin{aligned} & 266: 18,268: 21, \\ & 269 \cdot 12 \text { 269•13 } \end{aligned}$ | $\begin{aligned} & \text { 287:10, 287:12, } \\ & \text { 287:24. 288:2. } \end{aligned}$ | $252: 15,253: 2,259: 3$ | hard [1] - 259:20 | 226:19, 227:4, 239:8, |
| $\begin{aligned} & \text { 269:12, 269:13, } \\ & \text { 269:14, 270:19 } \end{aligned}$ | $\begin{aligned} & \text { 287:24, 288:2, } \\ & 288: 24.289: 3 . \end{aligned}$ | 259:4, 259:10, | hard [ | 241:1, 241:3, 241:7, |
| $271: 1,272: 6,2$ | $290: 7,291: 6,2$ | 261:10, 263:3, 263:5, | HARPER [1] - 209:19 | 241:12, 247:6, 247:7, |
| 275:11, 275:13, | 292:8, 292:10, 293:6, | 264:8, 264:12, | head [7]-232:1, | $54: 12,255: 3,255: 4$ |
| 277:12 | 293:19, 295:5, 295:9, | 264:22, 265:4, 266:1, <br> 266.10, 267.7, 267.9 | $246: 25,295: 18$ | 255:9, 255:17, |
| fungible [4]-214:10, 239:6, 249:12, 249:16 | 295:15, 295:21, 295:22. 296:3. | 266:10, 267:7, 267:9, 267:21, 268:20, | $\begin{gathered} \text { 295:19, 295:21, 300:3 } \\ \text { headed } 111-240 \cdot 15 \end{gathered}$ | $256: 25,257: 13$ |
| $23$ |  | 268:22, 268:24, |  | $\begin{aligned} & \text { 259:12, 259:16, } \\ & 259: 19,259: 22, \end{aligned}$ |
|  |  | 269:3, 269:8, 269:12, |  |  |
| future [2] - 22 | $\text { 298:2, 298:8, } 301: 23,$ | 269:17, 270:24, | heard [2] - 228:4 | $260: 25,262: 21$ |
|  | 302:5, 302:9 | $\begin{aligned} & 273: 19,290: 25, \\ & 291: 3,294: 10, \end{aligned}$ | 234:2 | 265:16, 266:6, 268:5, |
| G | 285:14 | 294:13, 294:14, | hearing [2]-245:9, | :19, |
| gaining [1] - 224:16 | 223:23, 234:1, | 301:20, $301: 25$ | Held [1] - 228:7 | 295:15, 295:21, |


| 296 | 24 | Indian [40]-213:15, | $\begin{aligned} & \text { 243:23 } \\ & \text { injections [1] - 216:8 } \end{aligned}$ | $\begin{aligned} & \text { intermingled [1] - } \\ & \text { 239:6 } \\ & \text { internationally }[1] \text { - } \\ & \text { 260:8 } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 296:17, 297:2 | 250:10, 250:1 |  |  |  |
| 298:2, 302:9 | :19, 251:1 | 214:4, 215:5, 216:14 | inputs [1]-264 |  |
| ONORABLE | 265:1 | 216:20, 228:10 | [1] - 279 |  |
| 209:9 | 265:14, 265:25 | 233:17, 233:19 | - | et [2] - |
| hope [1] | 266:15, 266:20 | 238:16, 244:2 | 23 | 255:12 |
| hour [2]-216 | 273:22, 275:1 | 245:5, 245:1 | [1] 294 | interpolation [4] |
| 302:10 | 299:20, 300:2 | 245:18, 246: | tute [2] - 260: | 81 |
| se | immediately | 246:22, 251:5, | 291 | 300:25, 301: |
| 243:5 | $\begin{aligned} & \text { 278:21 } \\ & \text { impact }[1]-237: 12 \\ & \text { impeach }[2]- \end{aligned}$ | 263:4, 263:9, 26 | instrument [3] - | Interp |
| House [1] - 2 hypothesiz |  | $\begin{aligned} & 271: 15,273: 17 \\ & 274: 14,277: 1 \end{aligned}$ | $221: 13,222: 8,245: 14$ | $\begin{aligned} & \text { 300:23 } \\ & \text { interpret }[1]-282: 13 \end{aligned}$ |
| 235:17 | 226:22, 227:7 <br> impeaching [4] - | 277:24, 278 | 216:2, 216:3, 217: | erpreted |
| hypothetical [9] |  | 278:13, | sive [2] - 231: | 278:12, 290:14 |
| 220:7, 220:18 | $\begin{aligned} & \text { 226:21, 241:2, 241:3, } \\ & \text { 241:21 } \end{aligned}$ | 279:24, 282:2, 284: | 231 | 299:10, 299:2 |
| 221:11, $221: 12$ |  | $\begin{aligned} & \text { 285:18, 286:20, } \\ & \text { 287:13, 289:1, 290:6, } \end{aligned}$ | interact [3]-230:2 | interrupt [1] - 213:20 |
| 221:14, 221:18, | $\begin{aligned} & \text { implicitly [1] - } \\ & \text { 244:10 } \end{aligned}$ | $\begin{aligned} & \text { 287:13, 289:1, 290:6 } \\ & \text { 291:10, 291:19, } \end{aligned}$ | 231 | roduce [1] |
| $\text { 221:19, 222:7, } 2$ |  | 299:11, 302:7 | interaction [2] | 244:13 |
| 220:8 | Implicitly [1] 236:25 importance [1] - | Indians [21] - 215:10, | $\begin{aligned} & \text { 243:6, 243:7 } \\ & \text { interdepartmental } \\ & {[1]-260: 1} \end{aligned}$ | invaded [1] - 270:9 <br> inverted [1] - 247:21 <br> invest [2] - 245:5, |
|  |  |  |  |  |
|  | $\begin{aligned} & \text { 245:23 } \\ & \text { important }[1] \text { - } \end{aligned}$ | $\begin{aligned} & \text { 222:23, 222:24 } \\ & \text { 223:9, 223:12, } \end{aligned}$ | interest [58] | $245: 18$ $\text { investing }[1] \text { - }$ |
|  | 267:15 | 223:9, 223:12, | 215:15, 216:2 | 216:24 |
| 227:8, 227:19, 229:9, | impression [1] - |  | 218:1, 219:11, | Investment [1] |
| 229:13, |  | 263:16, 266:17, | 219:12, 219:14, | 228:7 |
| 242:1, 246:21 | $\begin{aligned} & \text { 230:16 } \\ & \text { inappropriate [1] - } \end{aligned}$ | 268:22, 270:22, 270:25, 276:7, 277:3, | 219:15, 220:14,221:11, 225:10, | investment [1] - |
| ntical [1]-268:6 | 226:24 <br> inception [1] - | 270:25, 276:7, 277:3, 279:4 |  | 216:20 |
| identifiable [1] - | 274:21 <br> include [18] - 252:17, | indicate [1] - 240:23 | $\begin{aligned} & \text { 225:13, 230:10, } \\ & \text { 246:3, 246:21, } \end{aligned}$ | $216: 18,251: 12$ |
| 267 |  | indicated [3]-219:5, 223:1, 223:11 | 246:3, 246:21, | investor ${ }_{[1]}$ - 267:14 involved [2] - |
|  | $\begin{aligned} & \text { include [18]-252:17, } \\ & \text { 253:4, 262:15, 263:6, } \end{aligned}$ |  | 251:8, 264:7, 265:24, |  |
| 264:24, 274:11 | $\begin{aligned} & \text { 263:12, 263:17, } \\ & \text { 263:19, 263:21, } \end{aligned}$ | individual [18] - | 266:2, 266:4, 267:18, | $\begin{aligned} & \text { 237:21, 253:8 } \\ & \text { involvement }[1] \text { - } \end{aligned}$ |
| 275:20, 279:12 |  | $\begin{aligned} & \text { 214:4, 215:10, } \\ & \text { 216:17, 216:20, } \end{aligned}$ | 268:25, 269:1, |  |
| 281:24, 284:7, 286:6, 286:17, 287:11, | $\begin{aligned} & \text { 263:19, 263:21, } \\ & \text { 263:24, 264:1, 264:3, } \end{aligned}$ |  | $\begin{aligned} & \text { 269:11, 269:14, } \\ & \text { 269:20, 270:5, 270:9, } \end{aligned}$ | involvement [1] |
| 286:17, 287:11, | $\begin{aligned} & \text { 263:24, 264:1, 264:3, } \\ & \text { 288:9, 288:21, 289:7, } \end{aligned}$ | 221:8, 223:1, 223:9, |  | involving [1] -$261: 15$ |
| 288:25, 290:5, 291:7, | 289:11, 289:15, | 236:22, 246:24, | $\begin{aligned} & \text { 269:20, 270:5, 270:9, } \\ & \text { 273:17, 273:18, } \end{aligned}$ |  |
| $\begin{aligned} & \text { 298:4, 300:10, 302:6 } \\ & \text { identified [21] - } \end{aligned}$ | 289:18, $289: 22$ | $\begin{aligned} & \text { 248:8, 263:16, 264:5, } \\ & \text { 268:22, 270:21, } \end{aligned}$ | 273:17, 273:18, | 261:15 |
| 250:2, 250:5, 250:13 |  | $\begin{aligned} & 270: 25,276: 7,277: 3, \\ & 300: 13 \end{aligned}$ | $\begin{aligned} & \text { 276:10, 276:16, } \\ & \text { 277:3, 277:9, 277:10, } \end{aligned}$ | 236:7 |
| 262:7, 262:14 | 223:24, 250:1, |  | $277: 11,277: 14$ | issue [3]-232:22, |
| 274:23, 278:8 | $\begin{aligned} & \text { 250:13, 264:4, 267:5, } \\ & \text { 277:17, 288:5, } \end{aligned}$ |  | 277:16, 277:18,278:13, $78: 14$ | issued [1] - 221:13 |
| 278:22, 279:8 | 288:15, 291 : | 213:15, 215:5, |  | issues [3] - 230:18, |
| 279:12, 279:14 | $\begin{aligned} & \text { includes [3] - } \\ & \text { 239:21, 250:9, 272:8 } \end{aligned}$ | 216:14, 228:10 | 279:22, 279:23, | $\begin{aligned} & \text { 246:10, 260:15 } \\ & \text { issuing [2] - 216:12, } \end{aligned}$ |
| 280:14, 282:1, |  | $\begin{aligned} & 233: 2,233: 16, \\ & 233: 19,238: 16 \end{aligned}$ | 280:1, 290:15, 291:1, <br> 294:18, 295:2, |  |
| 289:21, $291: 9$, | $\begin{gathered} \text { 239:21, 250:9, 272:8 } \\ \text { Income [2]-263:8, } \end{gathered}$ |  |  | 252:11 |
| 291:16, 291:18, 297:3, 300:19, | $\begin{aligned} & \text { 283:1 } \\ & \text { income [15] - 222:20, } \end{aligned}$ | $\begin{aligned} & \text { 245:5, 245:18, } \\ & \text { 246:22, 251:5, } 261: 9, \end{aligned}$ | $\begin{gathered} \text { 295:25, 296:4, 299:11 } \\ \text { interest-bearing }[1] \text { - } \end{gathered}$ | $\begin{aligned} & \text { item [2] - 250:4, } \\ & \text { 297:8 } \end{aligned}$ |
| 300:21, 302:6 | 233:2, 234:22, 263:6, | $\begin{aligned} & \text { 263:3, 271:15, } \\ & \text { 291:19, 302:7 } \end{aligned}$ | $\begin{aligned} & \text { 247:17 } \\ & \text { interested [2] - } \end{aligned}$ |  |
| identifies [1] | 233:2, 234:22, 263:6, 276:14, 283:8, 283:9, |  |  | ms [9]-232:2 |
| 283:11 | $\begin{aligned} & \text { 283:13, 284:22, } \\ & \text { 284:24, 288:9, } \\ & \text { 288:13, 289:4, 289:10 } \end{aligned}$ | $\begin{aligned} & \text { individuals' [1] - } \\ & \text { 248:9 } \end{aligned}$ | $\begin{aligned} & \text { 245:25, 295:7 } \\ & \text { interesting [1] - } \end{aligned}$ | 264:4, 269:19, <br> 273:25, 283:17, <br> 283:25, 289:21 <br> itself [4]-217:16, <br> 241:8, 274:24, 279:18 |
| identify [3]-267:20, |  |  |  |  |
| $\begin{aligned} & \text { 274:10, } 291: 24 \\ & \text { ignore [3] - } 226: 15, \end{aligned}$ |  | $\begin{aligned} & \text { 218:24, 278:4, } \\ & \text { 283:23, 291:4, 299:9 } \end{aligned}$ |  |  |
| $\begin{aligned} & \text { 226:17, 226:25 } \\ & \text { ignored }[1]-244: 14 \\ & \text { II }_{[1]}-261: 16 \\ & \text { IIM }_{[22]}-213: 22, \\ & \text { 214:1, 214:6, 237:13, } \\ & \text { 241:13, 248:4, } \end{aligned}$ | $\begin{aligned} & \text { 292:18, 292:21 } \\ & \text { increment }[2]- \\ & \text { 236:18, 236:20 } \\ & \text { indeed }[1]-287: 9 \\ & \text { Indeed }[1]-293: 20 \\ & \text { indefinite }[1] \text { - } \end{aligned}$ |  | Interrace [2] - |  |
|  |  | ```informed [2] - 235:5, 249:2 inherited [2] - 282:17, 289:19 initiatives [1] -``` | Interior [9] - 209:6, |  |
|  |  |  | 213:18, 213:23, |  |
|  |  |  | 9, 245:18, |  |
|  |  |  | 274:14, 277:25, 279:13. 298:6 | JAMES [3] - 209:9, |





| 245:21, 246:3, | Ph.D [1] - 260:4 | Policy [3] - 234:6, | 223:24, 269:9, | promotion [1] - |
| :---: | :---: | :---: | :---: | :---: |
| 249:24, 262:9, 265:7, | phi [1] - 260:2 | 246:13, 246:15 | 276:10, 276:15, | 260:12 |
| 267:17, 272:19, | philosophy | policy [9]-230:18, | 276:23, 277:1, 279:1, | er [1] - 251:9 |
| $\begin{array}{\|l} 293: 3,293: 24 \\ 295: 10,301: 1 \end{array}$ | 260:1 | $\begin{aligned} & 242: 4,243: 20,244: 2, \\ & 244 \cdot 7246 \cdot 3258 \cdot 17 \end{aligned}$ | 286:22 | $\begin{aligned} & \text { properties [3] - } \\ & \text { 263:9, 273:17, 279:24 } \end{aligned}$ |
| $\begin{aligned} & \text { 295:10, } 301: 1 \\ & \text { particularly }[4] \end{aligned}$ | $\begin{aligned} & \text { phrase [3] - 233:24, } \\ & \text { 234:3, 234:4 } \end{aligned}$ | $\begin{gathered} \text { 244:7, 246:3, 258:17 } \\ \text { portion [4]-233:9, } \end{gathered}$ | previously [2] 212:9, 255:5 | $\begin{aligned} & \text { 263:9, 273:17, } 279: 24 \\ & \text { proposals [1] - } \end{aligned}$ |
| 228:11, 231:25, | physics [1]-260:1 | 233:12, 265:8, 291:14 | prices [2]-263:15, | 244:10 |
| 245:25, 294:4 parties [1] - 246:10 | $\begin{aligned} & \text { picked [2] - 221:20 } \\ & \text { 284:16 } \end{aligned}$ | $\begin{gathered} \text { portions [2] - } \\ \text { 279:19, } 282: 5 \end{gathered}$ | 301:17 <br> principal [2] - | $\begin{aligned} & \text { propose [2]-229:25, } \\ & \text { 244:9 } \end{aligned}$ |
| $\begin{aligned} & \text { party }[1]-248: 6 \\ & \text { past }[1]-234: 7 \end{aligned}$ patchwork [2] - | Picking [1] - 242:1 <br> piece [1] - 245:21 | position [1] - 243:3 positions [1] 242:25 | $\begin{array}{r} \text { 219:12, 221:10 } \\ \text { principles [2] - } \\ 231: 10,245: 13 \end{array}$ | $\begin{gathered} \text { proposed [3] - } \\ 244: 1,244: 3,244: 22 \end{gathered}$ |
| $\begin{aligned} & \text { 293:13, 294:5 } \\ & \text { pay }[13]-214: 20 \end{aligned}$ | $\begin{gathered} \text { place [6] - 220:8, } \\ \text { 220:24, } 221: 5, \end{gathered}$ | $\begin{aligned} & \text { possibilities [1] } \\ & \text { 227:24 } \end{aligned}$ | $\begin{aligned} & \text { proceed [2] - 245:20, } \\ & \text { 260:24 } \end{aligned}$ | 295:13 |
| 215:15, $221: 3$, | 228:24, 235:7, 257:14 | sibility | Proceed [2]-227:11, | 237:4 |
| 223:17, 229:11, | PLAINTIFF [2] | 217:2, 228:19 | 241:24 | proved [1] - 302:2 |
| 230:1, 235:16, | 212:9, 261:1 | possible [1] - 217:14 | proceedings [1] | provide [1] - 229:17 |
| $\begin{aligned} & \text { 246:21, 253:13, } \\ & \text { 263:24, 265:7, 269:13 } \end{aligned}$ | Plaintiffs [20] | $\text { post }[1]-234: 14$ | 303:4 ${ }^{\text {Proceedings [1] - }}$ | provided [4]-238:4, |
| 263:24, 265:7, 269:13 <br> paying [1] - 229:19 | $\begin{aligned} & \text { 209:3, 209:11, } \\ & 261: 23,264: 23 \end{aligned}$ | $\begin{aligned} & \operatorname{pot}_{[2]}-258: 9, \\ & 258: 10 \end{aligned}$ | $\begin{aligned} & \text { Proceedings [1] - } \\ & 210: 15 \end{aligned}$ | $\begin{array}{r} \text { 242:7, } 260: 13,266: 3 \\ \text { proving }[1]-294: 12 \end{array}$ |
| payment [1]-229:17 | 267:20, 274:10 | Power [1]-261:21 | proceeds [11] | provisions [1] - |
| payments [2] - | 275:19, 277:21 | practically ${ }_{[1]}$ | 269:23, 282:1 | 245:4 |
| $\begin{gathered} \text { 223:24, 283:18 } \\ \text { pays }[1]-214: 1 \end{gathered}$ | $\begin{aligned} & 279: 11,281: 23, \\ & 284: 6,286: 5,28 \end{aligned}$ | 216:1 | $\begin{aligned} & \text { 282:19, } 284: 12 \\ & \text { 285:17, 286:21 } \end{aligned}$ | $\begin{aligned} & \text { psychology [1] - } \\ & \text { 260:2 } \end{aligned}$ |
| Peachtree [1] - | 287:10, 288:24 | 300 | 287:15, 287:25, | Public [5] - 231:13, |
| 209:16 | 290:4, 291:6, 298:4 | red | 289:15, 289:17, | 231:19, 232:1, 232:2, |
| $\begin{aligned} & \text { pen [1]-243:2 } \\ & \text { people [10] }-232: 11 \text {, } \end{aligned}$ | $\begin{gathered} 300: 10,302: 5 \\ \text { plaintiffs }[10] \end{gathered}$ | $\begin{aligned} & \text { 259:3 } \\ & \text { premature }{ }_{[1} \end{aligned}$ | $\begin{aligned} & \text { 289:21 } \\ & \text { process [4]- 231:3, } \end{aligned}$ | $\begin{aligned} & \text { 261:21 } \\ & \text { publication [1] - } \end{aligned}$ |
| $236: 2,236: 3,242: 18,$ | 217:1, 218:6, 218:19, | 226:19 | 234:3, 237:15, 257:21 | 238:20 |
| 253:15, 259:8, 261:17 | $259: 16,259: 22$ | preparation [1] 257.16 | 210:15 | publications [1] - |
| PEPION [1] - 209:2 | $268: 6,270: 20,271: 13$ | prepare [2] - 225:6, | professional [2] 262:10, 262:16 | published [1] - |
| Per [1] - 299:18 per [1]-273:22 <br> percent [10]-223:7, | $\begin{array}{r} \text { plaintiffs' [2] - } \\ \text { 260:20, 280:14 } \\ \text { Plaintiffs' [17] } \end{array}$ | $\begin{aligned} & \text { 267:23 } \\ & \text { prepared }{ }_{[1]} \end{aligned}$ | $\begin{aligned} & \text { 262:10, 262:16 } \\ & \text { professionals [1] - } \\ & \text { 232:13 } \end{aligned}$ | $\begin{aligned} & \text { 240:15 } \\ & \text { pull [1] - 252:9 } \end{aligned}$ |
| 223:21, 223:25, | 261:24, 262:4 | p | Professor [33] | pulling [1] - 220:22 |
| 224:3, 225:14, | 264:24, 274:1 | 226:4, 238:19 | 245:10, 261:5, 262:1, | purchased [1] - |
| 271:23, 292:5, | 276:3, 278:20, | present [1]-294:14 | 262:3, 262:16, 265:1, | 236:4 |
| $\text { 293:17, } 296: 5$ | $\begin{aligned} & 280: 15,284: 11 \\ & 284: 21,285: 13 \end{aligned}$ | presentations [2] 236.1 $236 \cdot 2$ | $\begin{aligned} & \text { 265:10, 265:17, } \\ & \text { 266:13, 267:23, } \end{aligned}$ | purchases [2] 214:19, 216:19 |
| performed [2] | $285: 16,287: 17$ | presented [3] | 274:13, 275:9, 276:2, | purpose $[1]-261: 5$ |
| $231: 3,298: 13$ | 291:24, 292:8, | 277:16, 290:25, 291:3 | 277:9, 278:1, 279:20, | purposely [1] |
| $\begin{gathered} \text { period [7] - } 224 \\ \text { 247:22, 265:25, } \end{gathered}$ | plead [1]-236:4 | presents [1] - 294:10 President 101 - | 284:11, 286:8, | $\begin{aligned} & \text { 234:20 } \\ & \text { purposes [3] - } \end{aligned}$ |
| 267:3, 272:8, 282:12, | plot [2] - 300:24 | 243:19, 243:20 | 286:20, 287:14 | $220: 23,274: 1$ |
| $\begin{aligned} & \text { 298:14 } \\ & \text { permanent [3] } \end{aligned}$ | $\begin{aligned} & \text { 301:10 } \\ & \text { plus [5]-219:12 } \end{aligned}$ | $\begin{aligned} & \text { 244:8, 244:18, } \\ & 245: 17,245: 23 \end{aligned}$ | $\begin{aligned} & \text { 288:3, 293:20, } \\ & \text { 295:23, 297:4, 297:9, } \end{aligned}$ | $\begin{aligned} & \text { 279:25 } \\ & \text { pursuant }[1] \text { - } \end{aligned}$ |
| 213:14, 248:17, | 219:13, 225:12, | 245:25, 246:2, 246:4, | 298:25, 299:4, 299:8, | 213:12 |
| $\begin{aligned} & \text { 248:19 } \\ & \text { person }[2]-214: 8, \end{aligned}$ | $\begin{gathered} \text { 258:10, 269:18 } \\ \text { PNC }_{[2]}-249: 1 \end{gathered}$ | 246:18 | $\begin{aligned} & \text { 300:11 } \\ & \text { professor }{ }_{[1]}-260: 6 \end{aligned}$ | pursue [1] - 256:23 pursuing [1] - |
| 296:10 <br> personal [11] - | $\begin{aligned} & \text { point [9]-217:8, } \\ & \text { 224:7, 238:17, } \end{aligned}$ | $242: 4,246: 6$ | proffer ${ }_{[1]}$ - 260:18 proffered [1] - | 243:20 |
| 238:9, 238:10, | 244:16, 268:17 | 277:3 | 258:21 | $20: 10,244: 8,245: 4,$ |
| 238:11, 246:6, | 270:13, 279:9, 290:8, | presume [3] - | proffering $[1$ | 251:17, 270:4, 281:1 |
| $\begin{aligned} & \text { 252:14, 252:20, } \\ & \text { 252:21, 253:1, } \end{aligned}$ | 301:1 <br> points [6] - 247:13 | $232: 19,233: 18,277: 5$ | 259:22 <br> programs [1] | $\begin{gathered} \text { putting [2] }-217: 15, \\ 017 \cdot 16 \end{gathered}$ |
| 253:24, 254:1, 257:9 | 261:10, 267:15, | 242:5, 293:10, 295:19 | 243:13 |  |
| $\begin{aligned} & \text { personally [1] - } \\ & \text { 237:20 } \end{aligned}$ | $\begin{gathered} \text { 281:8, 281:13, 300:13 } \\ \text { policies }[2]-243: 16, \end{gathered}$ | $\text { prevalent }[1] \text { - }$ | project [1] - 294:6 proliferation [1] | Q |
| persons [1] - 258:19 | 243:19 | previous [9] - |  | QTR [1] - 273:21 |





| 226 | 230 | 218:23, 220:6 | 232:22, 246:7 | window [3] - 239:5, |
| :---: | :---: | :---: | :---: | :---: |
| 230:12, 230:13 | t [5] - 244:23 | 226:23, 233:18 | 261:10, 272:14, 281:6 | 249:12, 249:15 |
| 230:14, 237:16 | 245:12, 250 | 233:22, 240:15 | ty [1] - 223 | ton [1] - 209:25 |
| 253:16, 269:7 | 300:21, 302 | 273:8 | 2] - $218: 2$ | nston-Salem [1] - |
| 269:20, 269:2 | [14]-245 | 273:24, 281:14 | ion [1] - 274 | 209 |
| 276:5, 279:23 | 249:14, 250:2 | 88:9 | us [1] - 247:1 | held [12 |
| 283:13, 288:9 | 250:10, 250:12 | 289:15, 289:17 | view [2]-267:1 | 1, 22 |
| 288:13, 289:4 | 254:15, 254:16 | 289:22, 291:2 | 301 | :23, $221: 24$ |
| 289:10, 289:11 | 254:18, 254:23 | undercutting | S [6] - 21 | 7, 222:1 |
| 297:12, 297:13 | 254:25, 265:5 | 241:2 | 7 | 3:12, 225:2 |
| 298:22 <br> totaled | 270:16, 270:18, 272:3 trusts [2]-250:5 | $\begin{aligned} & \text { underlie [2] - 220:2, } \\ & \text { 220:3 } \end{aligned}$ | 244:22, 246:7, 246:1 | 225:12, 233:3, |
| totals [3] - 22 | $\begin{array}{r} \mathbf{t r} \\ \mathbf{2 5} \end{array}$ | und | [1] $-224: 10$ | withholding |
| $\begin{aligned} & \text { 240:3, 277:17 } \\ & \text { tough }[1]-294: 6 \\ & \text { track }[4]-213: 25, \\ & \text { 214:13, 280:14, 287:5 } \\ & \text { transactions }[2]- \end{aligned}$ | try [2]-233:9 | 297 | [1] - 253:1 | $\begin{aligned} & \text { 222:23 } \\ & \text { WITNESS }[40] \text { - } \\ & \text { 211:2, 212:8, 251:10, } \end{aligned}$ |
|  | 243 | underlying [1] - 272:22 | es [1] - 243:5 |  |
|  |  | $\begin{aligned} & \text { 272:22 } \\ & \text { undersecretary }[1] \text { - } \end{aligned}$ |  |  |
|  | $\begin{aligned} & \text { Tuesday [2]-209:4, } \\ & \text { 258:5 } \end{aligned}$ | 231:16 <br> UNITED [2] - 209:1, | 22 | $\begin{aligned} & 252: 19,253: 6, \\ & 253: 11,254: 1, \\ & 256: 25,257: 8, \end{aligned}$ |
| $\begin{aligned} & \text { transactions [2] - } \\ & \text { 240:2, 263:15 } \\ & \text { transcript [2] - } \\ & \text { 210:15, 303:4 } \\ & \text { TRANSCRIPT [1] - } \end{aligned}$ |  | $\begin{aligned} & \text { 209:9 } \\ & \text { United [11] - 224:16, } \end{aligned}$ | vouching [1] - 223:3 |  |
|  | $\begin{aligned} & \text { 258:5 } \\ & \text { turn }[16]-271: 24, \end{aligned}$ |  |  | $\begin{aligned} & 257: 13,257: 23, \\ & 258: 1,258: 7,25 \end{aligned}$ |
| $\begin{aligned} & \text { 209:8 } \\ & \text { transcription }[1] \text { - } \end{aligned}$ | 278:7, 279:7, 279:17, | 233:24, 236:8, | $\begin{aligned} & \text { Wait [1] - } 24 \\ & \text { wait }[2]-24 \end{aligned}$ | $\begin{aligned} & \text { 258:23, 259:1, } \\ & \text { 259:15, 265:21 } \end{aligned}$ |
| 210:16transform [1]-229:7 | 283:5, 283:16, | $\begin{aligned} & \text { 264:8, 264:11, } \\ & \text { 264:22, 298:5 } \end{aligned}$ | walk [2] - 217:5, | 270:8, 276:12 |
|  | 296:20, 297:7, 298:9, |  | 284:18 | $\begin{aligned} & \text { 276:25, 277:5, 292: } \\ & \text { 292:15, 292:18, } \end{aligned}$ |
| transform [1] - 229:7 <br> translate [1] - 242:4 <br> Treasury [50] - | 298:16, 300:18 turning $[1]-216: 2$ | University [1] - 260:1 university [1] - | $\begin{aligned} & \text { wants }_{[1]}-252: 5 \\ & \text { War }_{[1]}-261: 16 \end{aligned}$ | $\begin{aligned} & \text { 292:15, 292:18, } \\ & \text { 292:21, 293:8, } \end{aligned}$ |
| Treasury [50] - 212:21, 213:1, 214:4, | $\begin{aligned} & \text { twice [2]-260:10 } \\ & \text { two [22]-223:11, } \end{aligned}$ | $\begin{aligned} & \text { 238:12 } \\ & \text { unless [3] - 244:14, } \end{aligned}$ | AWS | 11, 293:1 |
| $\begin{aligned} & \text { 212:21, 213:1, 214:4, } \\ & 214: 5,216: 19, \end{aligned}$ |  |  | 260:2 | 3:18, 294:2 |
| 217:12, 218:17, | 232:5, 237:7, 237:10, | $\begin{aligned} & \text { unless [3]-244:14, } \\ & 246: 25,247: 4 \end{aligned}$ | 262:21, 265:16 | 4:25, 295:17 |
| 225:13, 225:19,226:4, 226:6, 228:11, | 237:13, 237:18, | 246:25, 247:4 unusual [1] - 256:16 | 268:5, 275:3, 275:6 | 296:16, 297:25 |
|  | 240:7, 264:6, 269:6, | up [37]-212:21, | 296:10 | 301:15, $301: 22$ |
| $\begin{aligned} & 226: 4,226: 6,228: 11, \\ & 229: 1,230: 4,232: 13 \end{aligned}$ | 269:8, 271:9, 282:14, | $\begin{aligned} & \text { 219:1, 219:15, } \\ & \text { 220:24, 222:11, } \end{aligned}$ | Warshawsky's [1] 266:7 | witness [9]-212:9 |
| $\begin{aligned} & \text { 229:1, 230:4, 232:13, } \\ & 233: 6,236: 8,236: 14, \end{aligned}$ | 282:20, 284:1, |  |  | 226:21, 226:23, |
| 241:14, 241:16,242:7, 242:11, | 284:20, 284:21 | $\begin{aligned} & \text { 220:24, 222:11, } \\ & \text { 225:1, 226:6, 226:16, } \end{aligned}$ | Washington [7] - <br> 209.4. 209.13 | 227:7, 227:10, |
|  | 285:23, 287:2, | 231:16, 232:18, |  | 231:25, 241:2, 241:4, |
| 242:7, 242:11, 242:13, 243:24, | 291:23, 293:6, 294:5,299:4 | 233:12, 240:13, | $\begin{aligned} & \text { 209:21, 210:4, 210:9, } \\ & \text { 210:13, 261:21 } \end{aligned}$ | 261:1 <br> word [1] - 271:5 <br> words [5] - 213:22, |
| $\begin{aligned} & \text { 242:13, 243:24, } \\ & \text { 247:15, 247:16, } \end{aligned}$ |  |  |  |  |
| 248:5, 248:11,248:15, 249:4, | type [2]-243:14, | $\begin{aligned} & \text { 241:11, 242:1, 242:5, } \\ & 243: 2,243: 9,243: 10, \end{aligned}$ | $\begin{aligned} & \text { Ways }[1]-243: 8 \\ & \text { ways }[1]-255: 1 \end{aligned}$ |  |
|  | typical [1]-262:14 | 244:14, 245:4 |  | 220:8, 220:10, 221:6, |
| 248:15, 249:4, 249:20, 250:20, 254:22, 255:8, 256:8, |  | 247:12, 247:20, | $\text { website }[1]-255: 12$ week [5] - 230:21, | $\begin{aligned} & \text { 244:8 } \\ & \text { works [3] - 268:15. } \end{aligned}$ |
| 254:22, 255:8, $256: 8$ 256:18, $257: 1$, | $\begin{aligned} & \text { typically [3]-244:14, } \\ & \text { 246:13, 266:4 } \end{aligned}$ | 259:21, 261:23, | $\begin{aligned} & \text { week [5]-230:21, } \\ & \text { 230:23, 258:13, } \end{aligned}$ | $\begin{aligned} & \text { 270:1, 276:22 } \\ & \text { world [1] - } 255: 13 \end{aligned}$ |
| 257:22, 264:11, |  | $\begin{aligned} & 264: 13,269: 9, \\ & 273: 13,273: 23 \end{aligned}$ | $\begin{aligned} & 230: 23, \\ & 258: 15 \end{aligned}$ |  |
| $\begin{aligned} & \text { 264:13, 264:20, } \\ & \text { 265:6, 265:13, 266:3, } \end{aligned}$ | U | 279:3, 279:5, 285:5, | weekly [3]-227:19, | World [1] - 261:16 |
| $\begin{aligned} & \text { 266:14, 266:19, } \\ & \text { 267:5, 267:10, 268:12 } \end{aligned}$ | U.S [8]-210:3, | 294:12, 300:14, 302:2 | $\begin{aligned} & \text { 237:6, 237:9 } \\ & \text { Weekly [1] - 227:21 } \end{aligned}$ | 213:4, 229:25, |
|  | 210:7, 210:12, 224:16, 226:11, | upper [1] - 296:6 <br> upwards [1]-295:12 | weeks [1] - 227:25 | $\begin{aligned} & \text { 236:25, 247:4 } \\ & \text { writes [1] - 214:20 } \end{aligned}$ |
| Treasury's 3 ] | $\begin{aligned} & \text { 224:16, 226:11, } \\ & \text { 265:6, 268:22, 268:24 } \end{aligned}$ |  | weight [1]-225:16 |  |
| $\begin{aligned} & \text { 212:15, 233:25, } \\ & 251: 24 \end{aligned}$ | 265:6, 268:22, 268:24 UCLA [3] - 260:10, | uses [1] - 217:25 | West [1] - 209:24 whatnot [1]-266:3 wherewithal ${ }_{[1]}$ - | $\begin{aligned} & \text { written [3]-213:3, } \\ & \text { 260:13, 272:5 } \end{aligned}$ |
| $\begin{gathered} \text { treated }[4]-241: 15, \\ 241: 18,249: 4,256: 17 \end{gathered}$ | 260:11, 260:12 | V |  |  |
|  |  |  | 229:17 |  |
| $\begin{aligned} & \text { 241:18, 249:4, 256:17 } \\ & \text { Trial }[1]-210: 6 \\ & \text { trial }[1]-257: 16 \\ & \text { Tribal }[2]-273: 22, \\ & \text { 299:20 } \\ & \text { tried }[1]-272: 21 \\ & \text { Troika }[2]-230: 3, \end{aligned}$ | $\begin{aligned} & \text { 294:12 } \\ & \text { ultimately }[2]- \\ & \text { 229:19, } 277: 13 \\ & \text { unavailable }[1]- \\ & 277: 6 \\ & \text { under }[17]-212: 7, \end{aligned}$ | $\begin{gathered} \text { value }[1]-263: 13^{\text {variations }[1]-} \\ 216: 10 \\ \text { variety }[4]-228: 5, \\ 264: 12,281: 18 \\ \text { various }[6]-212: 20, \end{gathered}$ |  | $\begin{aligned} & \quad \text { year }[81]-213: 14, \\ & 215: 22,215: 23, \\ & 216: 2,216: 6,216: 7, \\ & 216: 8,217: 22, \\ & 219: 12,219: 16, \end{aligned}$ |
|  |  |  | 281:4 <br> whole [1] - 224:17 <br> WILLIAM [1] - <br> 209:15 <br> willing [1] - 293:1 |  |
|  |  |  |  |  |
|  |  |  |  |  |



