STATE OF MISSOURI

PUBLIC SERVICE COMMISSION

TRANSCRIPT OF PROCEEDINGS

Hearing

December 13, 2004
Jefferson City, Missouri
Volume 11

In the Matter of the Tariff Filing)
of The Empire District Electric)
Company to Implement a General) Case No. ER-2004-0570
Rate Increase for Retail Electric)
Service Provided to Customers in)
Its Missouri Service Area)

KEVIN A. THOMPSON, Presiding,
DEPUTY CHIEF REGULATORY LAW JUDGE.

STEVE GAW, Chairman,
CONNIE MURRAY,
ROBERT M. CLAYTON,
JEFF DAVIS,
LINWARD "LIN" APPLING,
COMMISSIONERS.

REPORTED BY:

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P R O C E E D I N G S

JUDGE THOMPSON: We're here for the continuation of the Empire Electric Company rate case. This is Case ER-2004-0570, and we're ready for opening statements on the issue of capital structure rate of return. Empire?

MR. SWEARENGEN: Thank you, Judge. May it please the Commission? I'm Jim Swearengen appearing on behalf of the company.

I think the Commission is aware that this case involves a request by the Empire District Electric Company to increase its annual electric revenues that it derives from its Missouri customers by about $38 million annually. In prepared testimony filed with the Commission at the time the company initiated this case, Empire's president and chief executive officer, Bill Gipson, explained that the rate increase requests were driven by three primary factors.

The first of those is the issue you heard last week, and that is the higher fuel costs that the company is experiencing, principally higher natural gas prices. The second major factor driving this request for rate relief is a need for increased depreciation rates to properly reflect the economic costs of the company's assets that are devoted to public service, and that issue will be heard later this week.

The third main issue behind the rate request is the issue that we're going to hear today and tomorrow, and that is the cost of capital issue, principally the company's need to earn an adequate rate of return. Mr. Gipson in his testimony -- and he'll be a witness on this issue later today -- testified that on a going-forward basis the company must make very significant capital investments in order to meet its duty to serve the public in this state and to continue to provide the reliable, high-quality electric service that those customers have come to enjoy.

And what all this means is that in the very near future, Empire will be going to the capital markets, and it's critical that Empire have access to those markets at the lowest possible cost.

The cost of capital issue traditionally is made up of three components, of which the Commission is aware. The first usually is the appropriate capital structure to utilize for purposes of setting rates, and that would -- that usually refers to how much debt and how much equity the Commission determines is necessary to support the utility operations. The second most common issue is the cost of debt, and the third is the cost of the common equity component of the capital structure.

In this case, based on the evidence that has been presented, there are relatively minor issues with respect to the capital structure itself and the cost of debt. Empire has proposed using what it refers to as a regulated only capital structure, and Staff is using a consolidated corporate capital structure. That difference of opinion on capital structure, I think, translates into a revenue requirement issue of about $290,000, and there's a related cost of debt issue that I believe approximates about 120,000 in revenue requirement.

Those sound like pretty big numbers to me, but in the overall scheme of things when we're trying cost of capital issues, they're relatively minor.

The major cost of capital issue in this case is the traditional dispute over the required return that the equity investor expects in order to consider investing in this company. In other words, what will it take to get potential investors to invest in the common stock of the Empire District Electric Company, given the other options that they have for making that investment?

The company recommends a return on equity of at least 11.65. The Staff proposes a range of 8.29 to 9.29, with a midpoint of 8.79. The Public Counsel supports a range of 8.96 to 9.41. The cost of cap-- excuse me. The return on equity issue is worth approximately $11.6 million in revenue requirement, and that will be the focus of my remaining comments here this morning.

Obviously the Commission's decision on this issue is going to be of critical importance, not only because of the impact it will have on the new rates to be established in this proceeding, but it will also have a very significant impact on the company's ability to compete in the capital markets.

The company is aware and I am aware that at times this issue can seem somewhat confusing or intimidating due to its technical nature. Others might consider it tedious or boring. There's not much I can do about that. We will try to make it as interesting as possible.

Our approach, and we hope you'll receive it this way, is what we believe is a common sense approach applying the basic law that underlies how the Commission is supposed to rule on this subject to Empire's particular circumstances, and we hope we can make this clear. We hope our presentation is clear and that we can make this as interesting as possible.

The Commission has heard and I'm sure the Commission is aware that the law requires this Commission to establish a rate of return for Empire for its equity investors commensurate with the returns those investors could expect to achieve in investments in other enterprises having corresponding risks.

On that point, we would ask you to listen carefully to the testimony of Empire's two expert witnesses. Dr. Donald A. Murry who has testified previously before this Commission is currently a professor emeritus at the University of Oklahoma. Dr. James H. Vander Weide, who is new to this Commission, is a professor of finance and economics at Duke University.

Dr. Murry has explained in his direct testimony how he developed his rate of return recommendation, and he recommends a return of 12 percent ROE. Dr. Vander Weide explains in his testimony how he arrived at his estimated cost of common equity of 11.3 percent. Based on the testimony of these two witnesses who arrived at their recommendations independently, Empire is requesting a return on equity of 11.65 percent, which is the midpoint between Dr. Vander Weide's recommendation and Dr. Murry's recommendation.

You might ask why did Empire elect to have two outside rate of return experts testify in this proceeding. Well, the answer is the company engaged these two individuals to assist them in connection with the company's 2003 Oklahoma rate case, and the result in that proceeding was an authorized return on equity of 11.27 percent, which Empire at the time regarded as favorable, especially in light of the fact that in Oklahoma the company has a fuel adjustment clause through which it timely recovers its fuel and purchased power expense.

In any event, we would ask you to contrast the testimony and the positions of Dr. Murry and Dr. Vander Weide with the approach and analysis used by the witnesses for the Staff and the Public Counsel. When you review the testimony of the Staff and Public Counsel cost of capital witnesses, you will realize that not much has changed with respect to their approach to this issue since the most recent case in which this issue was litigated, which was the Missouri Gas Energy rate case this past summer.

We believe that both witnesses have fundamental flaws in their analysis and in their work, which is underscored by their failure to follow the law. And by this I mean we do not believe that either the Staff or the Public Counsel witnesses have made any effort to apply the standard of the Hope and the Bluefield case and instead have simply relied on a mechanistic discounted cash flow analysis without any evidence to demonstrate to the Commission how their extremely low return on equity recommendations comport with the Supreme Court cases.

There's really been no effort by either of these witnesses to explain why their recommendations are significantly lower than equity returns being authorized by other commissions around the country for electric utilities.

For example, Staff witness David Murray in his direct testimony at page 5 correctly sets out the legal criteria that is supposed to be applied in these cases and that the Commission must satisfy in awarding a return for Empire. He states a fair return should be one generally being made at the same time in that general part of the country and should be a return achieved by other companies with corresponding risks and uncertainties. It should be a return sufficient to ensure confidence in the financial soundness of the utility company.

But I believe when you read his testimony, he really only pays lip service to those criteria when he makes his ultimate recommendation to the Commission. And as I indicated before, he relies on what is referred to as a company-specific DCF or discounted cash flow analysis.

This is a process in which only the facts involving Empire are plugged into the DCF formula without any consideration being given to other companies with corresponding risks. Mr. Murray does this, he makes a mechanistic calculation, and then claims that the result of that calculation represents investors' expected return and the cost of capital for Empire and that result should be applied by this Commission in setting the authorized return for the company in this case.

Our position is that what he has done and what the Public Counsel has done, which is similar, is not a legitimate or valid cost of capital calculation. It doesn't come close to complying with the law, and that's why the result is unreasonable.

The Staff does one other interesting thing through David Murray's testimony, and that is an attack on Empire's dividend payout ratio, which may be simply an effort to divert your attention to the real issue, setting the authorized return.

With respect to Empire's current dividend situation, the Commission is probably aware that for about the past 10 years the company has paid out virtually all of its earnings in dividends. The dividend has not been increased by the company since this time. I think it was last increased back in 1992, and is currently at $1.28 per share.

Now, these circumstances and the company's dividend payout ratio have not been brought about by any misguided management policy on the part of the company, as the Staff would apparently have you believe. Empire has followed this approach in an effort to maintain its investment standing, which is obviously critical. Really, Empire's present financial circumstances exist because the company has been not -- has not been able to timely recover its legitimate and necessary operating expenses or to earn its authorized rate of return, not because its dividend policy is somehow inappropriate.

On the cost of capital issue, all the company is requesting that the Commission do in this case is to authorize a return comparable to the returns being authorized for other utilities of similar risk, and if you do that, if you do that with respect to return on equity and also afford the company a reasonable opportunity to then return and to timely recover its operating expenses, principally fuel, and if you couple that with realistic depreciation rates, we believe the company's financial circumstances and its ability to continue to provide safe and adequate service will be vastly improved.

Thank you very much.

JUDGE THOMPSON: Thank you, Mr. Swearengen. Any questions from the Bench?

(No response.)

JUDGE THOMPSON: Okay. Mr. Krueger?

MR. KRUEGER: Thank you, your Honor. Good morning. May it please the Commission? My name is Keith Krueger, and I represent the Staff on this issue.

Return on equity is a big issue in this case. The difference between Empire's position and the midpoint of Staff's position is worth about $11.5 million to Empire's ratepayers. I'd like to discuss it at length, but I'm only allowed a few minutes, so I'll be hasty.

Staff witness David Murray will present a careful analysis applying the principles that the Commission has consistently and repeatedly applied in rate cases that it has heard over the recent years. His analysis utilizes a company-specific application of the discounted cash flow method to determine Empire's cost of capital. He then subjects the result of this DCF analysis to numerous tests to determine whether the result that he obtained through the DCF analysis is reasonable.

Mr. Murray first compares the DCF result for Empire with the results he obtains by applying the DCF method to other comparable electric companies, and he then performs a capital asset pricing method analysis of Empire and compares the results of his DCF analysis with this. He also does a CAPM analysis of the comparable companies as a further test of reasonableness.

Mr. Murray's testimony will demonstrate

that Empire's cost of equity is in the range of 8.29 percent to 9.29 percent.

Empire will present the testimony of not but two witnesses on this subject. One of these witnesses, Dr. Donald Murry, will testify that Empire's cost of equity is 12.00 percent, virtually the same as what he testified the cost of equity was in each of the last two rate cases when prevailing interest rates were significantly higher and when Empire was more highly leveraged.

The other witness, Dr. James Vander Weide, will testify that Empire's cost of equity is 11.30 percent. These two witnesses use considerably different methods and predictably they reach different conclusions. Empire will ask you to split the difference between these two recommendations, but the Staff urges you to carefully scrutinize the testimony of each of these witnesses.

Dr. Murry's approach is similar to Staff witness David Murray's approach in that he will testify that he relied primarily on the results of a company-specific DCF analysis, just as Mr. Murray did, and used a CAPM analysis primarily as a verification and check on the DCF analysis. And he'll also compare the Empire results with the results obtained by applying these two methods to comparable companies. Dr. Murry will present a half a dozen schedules showing the result of his company-specific analysis.

I prepared a schedule showing -- showing the results of these analyses. You'll note that the high end of the capital -- cost of capital range on each of his first four schedules is 9 percent or less. Those are Schedules DAM-13, 14, 15 and 16. In each one the high end of the cost of capital range is less than 9 percent, and in each case it's lower than the high end of Mr. Murray's cost of capital rate. But Dr. Murry's other two schedules show a higher cost of capital with the high end of the range being 13.53 percent on one of the schedules and a little less on the other one.

The evidence will show that these higher results are heavily dependent upon a single estimate of the rate at which Empire's earnings will grow in the future. That estimate was provided by ValueLine, which estimates that Empire's earnings will grow at the rate of 6 percent per year. The Staff's evidence will show that ValueLine's estimate is flawed.

The evidence will further show that Empire itself expects its sales to grow by only about 2.5 percent per year, and that it's not reasonable to expect Empire's earnings to grow more than about 3.25 percent per year.

The evidence will show that if Dr. Murry used the more reasonable estimate of Empire's earnings growth, the results of his DCF analysis would be very close to Staff witness Murray's recommendation.

Dr. Vander Weide, on the other hand, will use a much different approach, which has not been accepted by this Commission or even presented to this Commission to my knowledge in many many years. Instead of using a company-specific analysis of Empire, like Dr. Murry did and like Staff witness David Murray did, and like OPC Witness Travis Allen also did, it attempts to first determine the cost of capital for a large group of proxy companies by applying the DCF -- by using different methodologies. He then averages the results of these three methodologies to determine the average cost of capital for his proxy group. He then adjusts the average up to -- that average upwards because he believes Empire's more highly leveraged than the proxy companies.

Dr. Vander Weide's first methodology uses a DCF analysis of 27 electric companies and 12 gas companies. The average results of those 27 electric companies is 9.4 percent. But he then averages that with the average result for the 12 gas companies and determines that the DCF cost of equity for the companies of comparable risk is 9.9 percent.

The second methodology that he uses is an ex ante risk premium analysis of electric companies, only 19 of them this time, and the same 12 gas companies that he analyzed with the DCF analysis. He again gives just as much weight to the gas companies as he gives to the electric companies, and he determines that the ex ante risk premium cost of equity for the companies of comparable risk is 11.0 percent.

The third methodology he uses is an ex post risk premium analysis of companies of comparable risk. This time, however, instead of using a group of identified electric and gas companies, he utilizes the S&P 500 and the S&P utilities as his proxy group. He determines that the ex post risk premium cost of equity for the companies of comparable risk is 11.2 percent. I don't believe that the Commission has relied on the risk premium analysis for anything other than verification of the reasonableness of a DCF analysis in recent years.

Then weighting these three -- the results of these three analyses equally, Dr. Vander Weide concludes that the cost of equity for his proxy group is 10.71 percent. But he then adjusts that result by adding .59 percent, because he thinks investments in Empire's stock are more risky than investments in the proxy group, to reach his conclusion that the cost of equity is

11.3 percent.

So one of Empire's witnesses will utilize a traditional DCF analysis that's heavily dependent upon ValueLine's flawed estimate of a 6 percent earnings growth for Empire, and the other Empire witness will utilize a far different methodology that this Commission has not seen recently, if ever.

Two other points merit special attention. First, the Staff's evidence will show that interest rates have come down since Empire's last rate case, and generally reduction in interest rates will reduce the cost of equity, and Empire's common equity ratio has increased since the last rate case, which also tends to reduce a company's cost of equity.

And second, the Staff's evidence will show that over the last 12 years Empire has consistently paid dividends that equal or exceed its earnings, as Mr. Swearengen acknowledged in his statement, and it will not even consider reducing the dividends in the future, but believes that the only way to maintain its habit of paying a 32 cent dividend per share every quarter is to ask the Commission to increase its allowed return on equity at the expense of the ratepayers.

Empire's experts have more experience than Mr. Murray or Mr. Allen and both are Ph.D. professors, but that's not the issue. As we critically question these witnesses, the most credible evidence will show that the cost of common equity for Empire is, as Mr. Murray testifies, in the range of 8.29 percent to 9.29 percent. Thank you.

JUDGE THOMPSON: Thank you, Mr. Krueger.

Mr. Coffman?

MR. COFFMAN: Thank you. Good morning.

May it please the Commission?

The Office of the Public Counsel is recommending a return on equity in the range of 8.96 to 9.41. This is not significantly far from the Staff recommendation. Essentially I think that you will find after you examine the rather heavy evidence on this issue that any decision that falls within the range of 9 percent to 9.4 percent would accurately reflect the risk for Empire District Electric Company and would fairly allow it to attract capital in the future.

I'll just mention briefly the other issues involving capital structure and cost of debt. These issues really are fairly small. The capital structure -- on the capital structure issue, Public Counsel takes the same approach of an actual capital structure that the company does. The difference between the company and Public Counsel on this issue is that we are using a more up-to-date capital structure, one as of June. I believe that Empire's capital structure reflects last December's capital structure. But the difference there is small, as is the difference in the cost of embedded debt.

The cost of common equity is, of course, the big issue here, and if you study the regulatory methods that are usually used to determine return on equity and which have been approved by this Commission for decades and decades, you discover that within this DCF discounted cash flow equation, the most crucial component is the growth rate, and from that, so if you break it down even further, the growth rate is really what separates the parties.

Now, Public Counsel witness Mr. Travis Allen has performed a DCF analysis and a capital asset pricing model analysis to arrive at this recommended range. So you know the low end of his DCF analysis was discarded after he performed his capital asset pricing model analysis. Giving Empire every benefit of his analysis, the original midpoint of the DCF is now the low end, and that is the 8.96 or essentially 9 percent.

Empire has, as you've heard, hired two outside experts to testify on this issue, and each in his own way has produced a creative recommendation. One's -- recommendations that we believe are really beyond the bounds of reasonableness, and interestingly, as you'll see from the record, these two testimonies are mutually inconsistent and in certain ways undermine each other. And if you -- and so it's interesting that Empire then decides to blend these two recommendations because they really -- one criticizes the other in fundamental methodological ways.

Getting back to what really is, I think, the component that you need to focus on, that is the growth rate, you will see that Mr. Allen arrives at a 3 percent growth rate, and this is the result of analyzing historic growth rates and earnings per share, dividends per share and book value per share for both Empire and for a proxy group of comparable companies. It is also after analyzing projected growth rates based upon a consensus of many analysts. This all comes back to and very clearly centers you into a 3 percent growth rate.

By comparison, Empire witness Mr. Donald Murry has employed a 6.00 percent growth rate, twice what Mr. Allen has found to be reasonable. And we believe that you will find looking at the depth of both the historic and projected information that Public Counsel has used that 6 percent is really outside the bounds of reasonableness.

We believe that our recommendation is based on the largest amount of data, both historical and projected. We believe that that growth rate is also consistent with what stock analysts are expecting generally. You'll find in the prepared testimony that the current electric industry growth rate over 4 percent is trending downward with what many experts expect to be a growth rate closer to 2 to 3 percent.

Please, as you look at this issue, focus in on the return on equity that is appropriate for this particular company and the very particular business risk profile of this utility. This is not the Southern Union/MGE case. This is not a gas company, despite the fact that Empire is wanting you to look at natural gas data. This is not Southern Union/Missouri Gas Energy with a capital structure of 26 percent common equity. Empire has over 49 percent common equity, which comparatively should produce a lower ROE.

And you have heard company's plea that you look over the fence and you begin to compare what other jurisdictions are doing in other cases. And I would submit that the law requires you to look at the evidence in this record, and particularly at the business profile and the business risks with this particular company. Empire stands out from many other electric utilities in that it is almost completely pure play, as they say, with only a small percentage of its income coming from non-regulated activities, and we believe actually less risky than your typical electric company.

Now, I know we're going to spend a long time today sifting through the various complicated methodologies that have been employed, but I think that you will find again and again when you look at these methodologies and you look at them in the way that this Commission has looked at them for decades and decades and see that they have performed correctly under the standard textbook rules, the tried and true approach, you will come again to a result that falls somewhere close to 9 to 9.5 percent.

Again, our recommendation is 8.96 to 9.41 percent for ROE. We believe this is based on very sound analysis, ample competent and substantial evidence and entirely consistent with the case law in this area. Thank you very much.

JUDGE THOMPSON: Thank you, Mr. Coffman. Mr. Conrad?

MR. CONRAD: Your Honor, we will waive opening statement on this issue. Thank you.

JUDGE THOMPSON: Thank you. I believe the first witness is Mr. Gipson.

MR. SWEARENGEN: Actually, the first

witness is Mr. Murry.

JUDGE THOMPSON: Are we going to be hearing from Gipson and Knapp?

MR. KRUEGER: The list of witnesses stated that Mr. Gipson would be the first witness.

MR. SWEARENGEN: Well, he's listed on there, but he doesn't -- it doesn't necessarily mean that he's going to be the first witness. And, of course, we're going to call our witnesses in the order we intend to. We're going to call Mr. Murry first, and he's the lead off.

MR. KRUEGER: It was listed as order of witnesses, your Honor.

MR. SWEARENGEN: Well, this is a pleading that the Staff filed and I never concurred in that.

JUDGE THOMPSON: Gentlemen, I think we'll hear from whoever Mr. Swearengen elects to call.

MR. SWEARENGEN: Thank you. Call Mr. Donald Murry to the witness stand at this time.

(Witness sworn.)

JUDGE THOMPSON: Do you understand if you were to give falls testimony in this proceeding you could prosecuted for the crime of perjury?

THE WITNESS: Yes, sir.

JUDGE THOMPSON: Take your seat, and please

state your name for the reporter and spell your last name.
THE WITNESS: My name is Donald A. Murry, M-u-r-r-y.
MR. SWEARENGEN: May I inquire?
JUDGE THOMPSON: You may inquire.
DONALD A. MURRY testified as follows:
DIRECT EXAMINATION BY MR. SWEARENGEN:
Q. Would you state your name for the reporter, please.
A. I just stated my name is Donald A. Murry.
Q. And by whom are you employed and in what capacity?
A. I'm a professor emeritus, University of Oklahoma, and I'm vice president of C.H. Guernsey & Company in Oklahoma City.
Q. Did you cause to be prepared for purpose of this proceeding certain direct, rebuttal and surrebuttal testimony in question and answer form?
A. Yes, I did.
Q. Do you have copies of that testimony with you this morning?
A. I do.
Q. Your direct testimony has been marked for purposes of identification, I believe, as Exhibit 11. Are there any changes that you need to make this morning with

respect to that direct testimony?
A. No, sir, there are not.
Q. With respect to your rebuttal testimony, which has been marked as Exhibit 12, are there any changes that you need to make in that document?
A. No, sir.
Q. And how about your surrebuttal testimony, which has been marked for identification as Exhibit 13, are there any changes or corrections that you need to make with respect to your surrebuttal testimony?
A. No, sir.
Q. Thank you. Dr. Murry, if I asked you the questions which are contained in your direct, rebuttal and surrebuttal testimony, would your answers under oath this morning be substantially the same?
A. Yes, they would.
Q. And are those answers true and correct to the best of your knowledge, information and belief?
A. Yes.
MR. SWEARENGEN: With that, your Honor, I would offer into evidence Exhibits 11, 12 and 13 and tender the witness for cross-examination. Thank you.
JUDGE THOMPSON: Thank you, Mr. Swearengen. Do I hear any objections to the receipt of Exhibits 11, 12 or 13?

MR. COFFMAN: Yes, your Honor.

JUDGE THOMPSON: What's your objection, Mr. Coffman?

MR. COFFMAN: I have an objection that is a hearsay objection based on Exhibit 11, page 15.

JUDGE THOMPSON: Just a moment. Okay. Please proceed.

MR. COFFMAN: Based upon the ruling last week, I would move to strike the testimony on page 15 of Mr. Murry's direct testimony from lines 8 through the bottom of the page. The quotes and information there cited from another source is -- is asserted for the truth of the matter, and I believe we do not have the benefit of being able to cross-examine those who produced those reports here today.

JUDGE THOMPSON: Very well. Mr. Swearengen?

MR. SWEARENGEN: My response would be that Dr. Murry is obviously an expert in this proceeding, and an expert is entitled to rely on what would normally be considered hearsay in formulating his opinion. And I don't think that's a valid objection. Cost of capital witnesses rely on outside sources from time to time, and that's been the practice and tradition. So I don't think that's a good objection.

MR. COFFMAN: Your Honor?
JUDGE THOMPSON: Yes, Mr. Coffman?
MR. COFFMAN: I was told last week that tradition at this jurisdiction was not necessarily what would control a ruling here, and I would simply ask that what's good for the goose is good for the gander, and that this falls within what I believe would be classic hearsay.
MR. SWEARENGEN: Once again, I'm not sure what Mr. Coffman is referring to about last week and whether or not the witness involved there was an expert witness, but this gentleman clearly is an expert witness and he is entitled to rely on this sort of information in formulating his opinion.
JUDGE THOMPSON: Dr. Murry, did you rely on this information in reaching the opinion that you're testifying to in this proceeding?
THE WITNESS: I used that information as representative of what the bond rating services were saying about this company. In that sense, I used it as a reference and I did rely on it.
JUDGE THOMPSON: Thank you. The objection is overruled. Please proceed.
MR. COFFMAN: Your Honor, I would like to make additional objection.
JUDGE THOMPSON: Okay.

MR. COFFMAN: Also based on hearsay, I would move to strike the testimony on pages 16 through line 2 on page 17.

JUDGE THOMPSON: All of page 16?

MR. COFFMAN: All of page 16 and the first two lines of page 17, all again in Exhibit 11.

JUDGE THOMPSON: Okay. Same response, Mr. Swearengen?

MR. SWEARENGEN: Same response, your Honor.

JUDGE THOMPSON: Very well.

MR. KRUEGER: The Staff concurs with that objection, your Honor.

JUDGE THOMPSON: Okay. If I were to ask you the same question, did you rely on this information in reaching your opinion?

THE WITNESS: My answer would be the same.

JUDGE THOMPSON: Very well. The objection is overruled.

MR. COFFMAN: I have no further objections.

JUDGE THOMPSON: Very well. Exhibit 11, 12 and 13 are received into the record of this proceeding.

(EXHIBIT NOS. 11, 12 AND 13 WERE RECEIVED INTO EVIDENCE.)

JUDGE THOMPSON: And I believe first up for cross-examination will be Mr. Conrad.

MR. CONRAD: No questions, your Honor.
JUDGE THOMPSON: Thank you. Mr. Krueger?
MR. KRUEGER: Thank you, your Honor. The Staff would like to offer the deposition of Dr. Murry, which was taken on November 10, 2004. We'd like to offer that deposition in its entirety.
JUDGE THOMPSON: Very well. This would be Exhibit 118.
MR. COFFMAN: I have, I believe, several copies of both the deposition of Mr. Donald Murry, as well as the errata sheet.
JUDGE THOMPSON: We would appreciate those copies. Thank you, Mr. Coffman.
MR. COFFMAN: Is it your pleasure that these be considered as one exhibit or two?
JUDGE THOMPSON: Let's consider them as one exhibit, the deposition and the errata sheet together. This would be Exhibit 118.
(EXHIBIT NO. 118 WAS MARKED FOR IDENTIFICATION.)
JUDGE THOMPSON: Do I hear -- you offered that, I believe.
MR. KRUEGER: I did, your Honor.
JUDGE THOMPSON: Do I hear any objections to the receipt of Exhibit 118?

MR. SWEARENGEN: The company has no objection.
JUDGE THOMPSON: Hearing no objections, Exhibit 118 is received and made a part of the record of this proceeding.
(EXHIBIT NO. 118 WAS RECEIVED INTO EVIDENCE.)
JUDGE THOMPSON: You may inquire.
MR. KRUEGER: Thank you, your Honor.
CROSS-EXAMINATION BY MR. KRUEGER:
Q. Good morning, Dr. Murry.
A. Good morning.
Q. Would you agree that the level of interest rates is important in determining the cost of capital?
A. Yes.
Q. On page 26 of your rebuttal testimony, you state financial forecasts indicate interest rates will continue to rise. Consequently, the cost of capital will continue to increase. This then would be reflected in the DCF cost of common equity because the DCF measures investments -- investors' expectations, correct?
A. I'm trying to -- I'm trying to distinguish in your question what part you were quoting me and what part was your question. I couldn't understand.
Q. Okay.

A. If you referred me to it, I'll look at it. I'm just trying to separate the two.
Q. The quoted part was financial forecasts indicate interest rates will continue to rise. Consequently, the cost of capital will continue to increase.
A. That's the quote, yes, sir.
Q. And would that then be reflected in the DCF cost of common equity because the DCF measures investors' expectations?
A. At least to a degree, yes, sir.
Q. So the cost of capital increases when interest rates increase?
A. All things equal, one would expect that to be the case.
Q. And decreases when interest rates decrease?
A. Same answer, yes, sir.
Q. And capital structure is also important?
A. Of course.
Q. Specifically the common equity ratio?
A. For the common stock investors, yes, sir.
Q. On Schedule DAM-1 attached to your direct testimony, you show that common equity is for Empire as 49.81 percent, but on Schedule DAM-4 you estimate it as 48.5 percent. Which of those is correct?

A. Well, as you can see on DAM-4 it is 48.5, and for 2003, that was an estimate. That's a ValueLine estimate, as it indicates at the bottom. And that's a comparison of ValueLine estimates to common stock equity for Empire with the group of comparable companies analyzed. The capital structure which I have used in this case is the one reported by the company, which is the Schedule DAM-1, and that's the 49.81 percent.
Q. You believe that to be the more accurate figure at the present time?
A. I believe it's the correct one to use for this case. I find no reason to disagree with that.
Q. What current dividend yield did you use in this case?
A. I used the $1.28 as shown on Schedule DAM-6. Or that's the dividend.
Q. And the yield.
A. Well, the yield of course would vary by the prices, and you can look at a comparison of the prices, Schedule, for example, DAM-13, and so the yield would vary -- therefore would vary from 3.76 percent to 5.5 percent -- or excuse me -- 5.7 percent to 7.53 percent for Empire in the -- that calculation.
Q. What schedule are you referring to?
A. I was just referring to 13 as an example.

Q. You also testified in Empire's last previous rate case, ER-2002-424, didn't you?
A. Yes, sir, I did.
Q. Do you recall what dividend yield you used in that case?
A. I believe I have that. I don't happen to have that. I guess the -- I thought I had it with me. I don't have that.
Q. Okay. Well, first let me back up and ask you another question about the current yield in this case. On Schedule DAM-18 you show the current yield as 5.80 percent to 5.88 percent; is that correct?
A. On 18?
Q. DAM-18 to your direct testimony.
A. Yes, sir.
MR. KRUEGER: May I approach the witness, your Honor?
JUDGE THOMPSON: You may.
BY MR. KRUEGER:
Q. I want to show you Schedule DAM-16 attached to your direct testimony filed in Case No. ER-2002-424. Does that show current yield of 6.11 percent to 6.21 percent?
A. Yes, sir, it does.
Q. Thank you.

What source did you use for your estimate of Empire's growth rate in the previous case, ER-2002-424?
A. I don't remember.
Q. You don't remember if it was S&P or not?
A. I'm sure I looked at S&P and ValueLine. I don't remember that testimony.
Q. If I represented to you that you used S&P, would you say that's incorrect?
A. I wouldn't say it was incorrect because I'm not sure. I would have looked at both of those, I'm positive.
Q. And what source did you use for your growth rate for your high DCF estimate in this case?
A. The high DCF was ValueLine, because that growth rate was higher than S&P's.
Q. Okay. Why did you use ValueLine in this case?
A. ValueLine -- ValueLine is a widely accepted financial reporting system, and as to why that was the highest this time, I guess you'd have to ask the people at ValueLine. At the time I prepared my testimony, ValueLine was forecasting 6 percent growth rate for Empire. Since then I believe it's gone to 6.5 percent in more recent release. So ValueLine's been consistent over the past year for that level of forecast. Analysts use it,

investors use it, and it produced a higher number. And I'm not responsible for the number that that growth rate produces. So that would have been the higher number. And so that's -- I think that -- as I recall, that produced a 13.5 percent cost of common stock for Empire, which I obviously didn't think was necessary for this proceeding.
Q. What would your recommendation be in this case if you were consistent with the source that you used in the last case, or should I say if you used S&P?
A. Are you talking about the DCF calculation?
Q. Yes.
A. If you look at my surrebuttal schedule, since that was the question that Mr. Murray raised in his rebuttal, I did a Schedule DAM-2 surrebuttal at which I compared the DCF calculations in that last case with this case, and the results were remarkably the same. The question he was raising, as I recall, in his rebuttal was why did the number -- why was the number the same that I had recommended? At the time I didn't even recall I'd recommended the same number. And so I did a calculation, actually went to that testimony and pulled those numbers and did a comparison between this case and the last case, and it shows that there's a remarkable similarity in some respects. The -- the D--

the CAPM has obviously increased a little bit, but the other calculations were remarkably the same.

I attribute that primarily to the interest rates having gone down and probably come back up, and in some respects Empire's situation is more -- financially more suspect now than it was at that previous case, so I think it's probably showing up in the DCF calculations.

Q. What would the result of your DCF calculation have been in this case if you had not utilized the ValueLine estimate of growth, if that had not been available to you?

A. Well, I guess if it -- I guess if ValueLine had not been available to analysts and they'd not thought that was a reasonable growth rate, the answer would be the same I guess for me as for anyone else. They probably would have resulted in a lower DCF calculation.

Q. Would you say that your DCF calculation in this case is heavily dependent upon ValueLine's growth estimate?

A. If you're referring to the higher numbers, the DCF calculation, I suppose the ValueLine estimate is very important because that was a higher growth rate forecast. That doesn't diminish the fact that that number is known to investors and that's what we're trying to determine, what are investors looking for, and if there --

and ValueLine, there's even empirical research. I was even asked this question as you recall in my deposition, and I was even given a DR on the subject to provide some literature suggesting that ValueLine empirically is probably the most closely linked to actual forecast.

And I believe the next witness, Mr. Vander Weide, I believe has actually published a paper on that subject, as I recall. So you may want to discuss that with him as to why ValueLine's important.

Q. Did you hear my opening statement?

A. I did, yes, sir.

Q. And in that you heard me mention that the high end of your cost of capital range on Schedules DAM-13, 14, 15 and 16 was under 9 percent in each case?

A. Yes.

Q. And the high end of your cost of capital range on Schedule 17 is 13.53 percent, correct?

A. That was the highest number, yes, sir.

Q. Would you say that's primarily attributable to the ValueLine growth estimate that you utilized there?

A. The 13.53?

Q. Yes. The difference between that and these.

A. Well, I think it would be -- I think it would be attributed primarily to growth rate differences, if that's your question. That would be my -- that would be what I would suspect and my recollection.
Q. And the growth rate that you used in 17 and 18 that drives it up, though, is Empire's -- I mean is ValueLine's growth rate estimate, is it not?
A. The higher -- you know, we seem to be going around on this issue over and over again, and yes, ValueLine has a higher growth rate estimate of owners. Now, you'd have to -- you'd have to raise a question, I suppose, as to why that's likely to be the case. One thing to look at is the earnings of this company has been very low, and a portion of that high growth rate is probably bringing the company back up to some expectation.
Q. Okay. Well, I didn't ask you that, sir. You don't need to respond to that. You testified in each of last two Empire rate cases, didn't you?
A. I think that's correct, yes, sir.
Q. And when was the first of those?
A. I don't remember.
Q. Would it have been October 2000?
A. I could accept that.
Q. Do you recall what interest rates were

then?
A. I don't believe I have that with me.
Q. According to Mr. Murray's prefiled direct testimony, the yield on public utility bonds was 8.08 percent and the average yield on 30-year treasuries was 5.80 percent. Would you dispute that?
A. No. That sounds about right.
Q. Do you know what Empire's common equity ratio was at that time?
A. It was lower than it is currently. I don't recall what it was.
Q. Okay. And do you recall what cost of equity you recommended in that case?
A. No, I don't.
Q. What was the second of the two Empire cases in which you testified? What was the date of that, do you recall?
A. I guess I -- I guess it was 2002, but I don't recall the date.
Q. Would you disagree with my statement the direct testimony was prepared in February of 2002?
A. I wouldn't disagree with that.
Q. Okay. Do you know what the interest rates were then?
A. I don't recall specifically.

Q. According to Mr. Murray's prefiled direct testimony, the yield on public utility bonds was 7.62 percent and the yield on 30-year treasuries was 5.39 percent. Would you dispute that?

MR. SWEARENGEN: I'm going to ask a clarifying question. He said Mr. Murray. We've got several Murray's here. Maybe you could be more specific.

MR. KRUEGER: When I say Mr. Murray, I'm referring to David Murray. When I say Dr. Murry, I'll be referring to Dr. Murry.

MR. SWEARENGEN: Fine. Thank you.

MR. KRUEGER: At least that's my intention.

THE WITNESS: If you're asking me if I would accept those numbers subject to check, I will do so. That sounds about right.

BY MR. KRUEGER:

Q. Do you know what Empire's common equity ratio was at that time?

A. No, I don't recall.

Q. Do you recall -- do you know whether it was higher or lower than it is at the present time?

A. It would be -- my recollection is it was lower. I think that's the one -- I think that's the one favorable thing about this company is it has improved its equity ratio at this period.

Q. Do you recall what cost of equity you recommended in that case?

A. I think I was informed by Mr. Murray's rebuttal that I recommended 12 percent. I think we just discussed that in my Schedule DAM-2, surrebuttal.

Q. And do you know what the interest rates were when you filed direct testimony in this case?

A. Well --

MR. SWEARENGEN: I'm going to object to that. When he says interest rates, there are a lot of different interest rates for different investment instruments. Maybe focus his question.

JUDGE THOMPSON: What exactly is your objection?

MR. SWEARENGEN: My objection is the form of the question, says what interest rates without referring to long-term, short-term, treasury bills. It's a pretty open question.

JUDGE THOMPSON: Well -- pardon me, Mr. Krueger. The witness is an expert. If he's able to answer, he may.

THE WITNESS: Let me refer you to my Schedule DAM-22, which shows a comparison of bond yields. And it's on treasuries, corporates and 90-day Treasury bills that stretch from January 3, 2003 to the end of

January 2004. I was looking at the interest rate period for that. The AAA bonds at the time of this testimony were in the neighborhood of 5.5 percent, and the treasuries were about 50 basis points less than that, slightly less than that differential. And the 90-day treasuries were, as I think we all know from federal reserve policy, at that point they were about 1 percent, probably going to go up to 2.25.

I think the estimate, the Federal Reserve raised it to 2.25. So it's gone up -- this short-term market's gone up by a percent and a quarter approximately since the time of my testimony.

BY MR. KRUEGER:

Q. Okay. And I believe you testified that Empire's common equity ratio at the present time is 49.85 percent?

A. That's correct.

Q. So the interest rate -- the interest rates have declined from the time of the first case to the second case to the present case by approximately 1.5 points, correct?

A. Those numbers seem about right. Of course, they've gone up since the filing of this case, and I -- at the time of my testimonies, I indicated I thought the interest rates would be rising, and that has materialized

and the forecasts now are for -- the most recent forecasts I've seen are for bonds to increase about 90 basis points over the next three or four quarters.
Q. And the interest rate on 30-year treasuries has also declined since --
A. From one case to the next case, but the answer is the same on that. The rates have been rising ever since the time I filed this testimony.
Q. And the common equity ratio has increased from one case to the next to the next?
A. Yes.
Q. All other things being equal, those two factors would both suggest that the cost of capital tends to decrease, correct?
A. All other things equal, that would indicate that general cost of capital should be decreasing, yes, sir.
Q. Did Empire take advantage of lower interest rates last year when it refinanced its debt?
A. Well, I think the answer to that is that the market resulted in lower -- any -- any refinancing of debt that was still in the debt market, Empire would have benefited by the lower market, if that's your question.
Q. Did it refinance debt last year?
A. I don't remember exactly, but as I recall,

there was some debt that came due and was refinanced. I don't remember the amounts.
Q. And you don't -- do you recall whether that was at a lower interest rate?
A. No. That would be my -- I would suspect that's the case, but I don't know for sure.
Q. What has happened to the tax law and dividend since the last rate case?
A. Tax law and dividends has changed.
Q. In what way?
A. Dividends are now taxed as I understand -- as you know, I'm not an accountant. They're to be taxed starting in 2004 in a manner that's equivalent to capital gains.
Q. Is that change favorable to the investor?
A. It's favorable to the investor that wishes to have the dividends in the present time period because of the -- because of the tax treatment, yes, sir.
Q. Did you do any investigation to determine how much effect the existence of a fuel adjustment clause has on a company's required ROE?
A. I think you asked me that at depositions, as I recall, and my -- I don't remember my answer in the deposition, but the answer to that question is, I did not do any specific quantitative analysis of that, and I'm not

even sure how to do that. That would show up in the various DCF results, and it certainly shows up in the evaluation of the bond raters.

And that was one reason I put this -- those concerns in my testimony. I think that's a concern about this company, that there's no fuel adjustment clause.

Q. Did you try to take account of that in making your recommendation on the cost of equity?

A. The lack of fuel adjustment clause?

Q. Yes.

A. Yes, sir, I did.

Q. How did you do that? How did you go about that?

A. As I indicated in my testimony, that was one of the reasons I elected to go to the higher end of the range that I would have recommended.

Q. So do you know how much that may have added to your recommendation?

A. It's hard to go back in time and sit and try to regenerate your thought processes of nearly a year ago, 10 months ago, whenever. I remember considering whether to recommend a range in this case or not, and I was seriously considering a range 11.5 to 12 percent.

And one of the reasons I elected not to recommend the lower end of that range was the lack of the

fuel adjustment clause. Now, that was a qualitative judgment obviously as to what I thought that influence would be, and I -- there are some other factors. There's a depreciation issue in this particular case, and there's also the fact this company has not earned its allowed return, which is also my testimony, for the last number of years. Those are all factors that I took into account when I decided to recommend 12 percent. But that's the best I can reconstruct my thought processes at that point in time.
Q. It did cause you to increase the amount of your recommendation, though, didn't it?
A. I just said it had an influence on my recommending the higher end of the range.
Q. But you can't quantify it?
A. No. No, sir. I don't know exactly how to quantify it because I don't know how much of an impact that's had on the -- the calculations.
Q. And you haven't done --
A. So I can't -- so I can't remove. I can't -- since I don't know how much is built in, I don't know exactly how much to remove.
Q. And you haven't done any studies to determine how much of an effect that would have?
A. I don't even know methodologically how to

do that. I think it's an interesting hypothesis to try to test, but I do not at the moment sit here and tell you I know how to do that.

Q. So how is this better than a guess or a hunch?

A. It's professional judgment, is the best I can tell you. It's looking at other companies. That's why I used comparable companies. It's looking at the CAPM analysis, which is taking a longer period of time, and especially looking at other companies that were companies that have fuel adjustment clauses. It's a recognized thing in the Oklahoma case I testified in, 11 -- 11.27 percent for the same company, and Oklahoma has a fuel adjustment clause.

I have read testimony from the Staff in Arkansas concerning this company, and the Staff in Arkansas has specifically set out in its testimony that no fuel adjustment clause in Missouri means, in fact, impacting the risk of this company, and they should not in Arkansas pay for that risk.

That's never been quantified in either of those jurisdictions, but taking all that information and triangulating, I think it's clearly an important factor.

Q. On page, lines 14 and 19 of your surrebuttal testimony, you state that your recommendation

in this case is the same as the recommendation in the last case because Empire's risk profile is the same in this case if not riskier than it was in the last case because of S&P's negative credit watch; is that correct?
A. I'll accept that as an accurate paraphrasing of that statement. I think it's appropriate.
Q. Was an interim energy charge a part of the last case?
A. Not to my recollection. I don't recall exactly how the fuel matter went in the last case, but to my knowledge, it was not.
Q. Hasn't it been discussed in this hearing that the existence of an IEC would reduce Empire's risk level?
A. I'm sure it has been. That's my understanding. I was not here last week.
Q. Hasn't S&P been using the same canned language about the regulatory climate in Missouri for the last couple of years, including the last rate case?
A. I don't --
MR. SWEARENGEN: Excuse me. I'm going to object to that. I don't know what is meant by the question canned language. I don't understand the meaning.
THE WITNESS: I have noticed similarities.
JUDGE THOMPSON: Excuse me, Dr. Murry.

THE WITNESS: I'm sorry.

JUDGE THOMPSON: That's quite all right. I get an opportunity to rule now. I'm going to overrule the objection. You may answer if you're able.

THE WITNESS: Thank you, sir. I was just going to say, I can't tell you if the language is precisely the same or not over how long a period of time. I am aware because I've seen different reports from Standard & Poor's that the -- at least the fuel adjustment clause issue has been one that's frequently mentioned as a problem in Missouri, and I believe maybe depreciation as well, but I can't tell you exactly what the language is.

BY MR. KRUEGER:

Q. On your direct testimony you said that you relied primarily on the results from the DCF analysis; is that correct?

A. That -- I think that's a fair statement. I noticed in your summary, I thought you -- I thought you hit that a little harder than I intended. I did look to the DCF first, and in that sense I would consider it the principal thing to look for, but that would be the normal process I would go through. I tend to use the CAPM as a longer-term view of the market relationships because of the nature of the CAPM analysis, and then I look to the market influences and factors to calibrate my judgment.

And so I think that -- I think that's consistent, but as I heard you describe my testimony, it seemed to me like I was looking to the DCF first and then these other things were ancillary, and I don't think that's the way I -- certainly not the way I try to proceed.
Q. Well, I'm looking at page 29 of your direct testimony where you say, I relied primarily on the results from the DCF analyses using forecasted earnings per share information and current market prices.
A. Right. I understand.
Q. And you agree with that?
A. Well, I made the statement, and I think in the context I just described it, I think it's appropriate.
Q. And then you said that you used the CAPM analysis primarily as a verification or check on your DCF analysis?
A. Yes, and again, in the context which I describe, I used it as a longer-term view of the market. I think that's fair.
Q. In what sense is the cost of common equity for Empire measured?
A. I don't think I follow the question, sir.
Q. Okay. Refer to page 22 of your direct testimony. You said, obviously the DCF measured cost of

common stock for Empire is higher than any other comparable small electric utility companies. I'm wondering what you mean by the term "measured" there. In what sense is it measured?
A. What line are you -- you're on page 22?
Q. Page 22, line 3 and 4 and 5.
A. I'm afraid that the -- we have a different pagination probably because of computer printing.
Q. Okay.
A. On what line, sir?
Q. 3, 4 and 5.
A. Just simply pointing out that using the DCF formula, mechanically making those calculations, that the cost of capital for Empire is higher than for the comparable companies that I used in my analysis.
Q. Okay. But my question was, why did you say that it's a DCF measured cost of common stock? I guess I'm distinguishing that from an estimate.
A. Oh, I don't think I'm making a semantic difference between measure and estimate in that case. I don't think I intended to distinguish between the two.
Q. Okay. Now I want to ask you some questions about Schedules 13 through 18 of your direct testimony. In Schedule 13, you've calculated Empire's cost of capital based on stock prices over a 52-week period and utilizing

dividends per share to determine a growth factor, correct?
A. Yes, sir, that's correct.
Q. And that produced a cost of capital range of 5.70 percent to 7.53 percent?
A. That's -- yes, sir. I think that's correct.
Q. And Schedule 14 was a similar calculation but was based on current stock prices and again using dividends per share to determine the growth factor?
A. Right.
Q. And that produced a cost of capital range of 5.80 percent to 5.88 percent?
A. That's correct. And the reason is, you know, pointing out the growth rate in both cases is forecasted to be zero for dividends. In other words, ValueLine is forecasting flat divid-- flat dividends for this company for that period.
Q. But this is something that you typically look at when you're doing a cost of capital recommendation in a case, isn't it?
A. Yes.
Q. This is a typical study you perform?
A. Well, yes, sir. I -- I cannot be certain what investors are going to look to, and some investors are going to be very concerned about dividends and they

may use that as a criteria. And so I -- as a piece of information that I think is relevant to at least evaluate, I make that calculation.
Q. Schedule 15, you calculated Empire's cost of capital based on stock prices over a 52-week period and utilizing historical and future earnings per share to determine the growth factor, correct?
A. That's correct.
Q. And that produced a cost of capital in the range of 7.16 percent to 8.99 percent?
A. Right.
Q. And Schedule 16 was similar, except that it was based on current stock prices?
A. Yes.
Q. And that produced a cost of capital range of 7.26 percent to 7.34 percent?
A. That's correct. Recognizing that some -- the investors are really going to be more interested in what's going into the future, and they're certainly going to be interested in current prices.
Q. Okay. I'll ask you about that in a little bit. Now, in each of those four schedules that I just asked you about, the cost of capital range for Empire was similar to the cost of capital range that you showed at the bottom of the same schedule for your comparable

companies, wasn't it?
A. Well, if -- if you're looking -- I guess I'm not sure. I guess I would accept that. I'm not positive that that's the case throughout, because the vagaries of the market and the different growth rates, you'd find some differences.
Q. But for the comparable companies in these four schedules, the high end of your cost of capital range was in every case less than 10 percent. In fact, it was less than 9.5 percent, wasn't it?
A. I think that's correct.
Q. And the high end of your cost of capital range on those four schedules is actually less than the high cost of capital that David Murray recommended in his direct testimony, which was 9.29 percent, correct?
A. Yes, that would be true.
Q. Schedule 17 and 18, though, attached to your direct testimony, both differ from those other schedules I have asked about in that they rely exclusively on estimates of future earnings per share growth for determining G, do they not?
A. That's correct.
Q. And in both of those schedules the S&P estimate of future EPS growth was 2 percent?
A. Yes.

Q. And ValueLine's future EPS growth was 6 percent?
A. Yes.
Q. And Schedule 17, which is based on prices over a 52-week period, you came up with a cost of capital range of 7.70 percent to 13.53 percent?
A. Yes.
Q. It's a very broad range.
A. It shows the difference in the forecasted earnings between ValueLine and Standard & Poor's, which we discussed earlier.
Q. The ValueLine estimate alone causes the high end of your range on Schedule 17 to go from 9.53 percent to 13.53 percent?
A. That would be correct.
Q. Then on Schedule 18, which is based on current stock prices but again relies on estimates of future earnings, the cost of capital range is 7.80 percent to 11.88 percent?
A. Yes, that's correct.
Q. And again, if ValueLine was not available, so you had to rely on S&P only, that would be -- the top of that range would be 7.88 percent; is that right?
A. If I -- hypothetically if I had done that, I think the circumstances would have obviously been

different if ValueLine had not been available and I had reason to believe that's what investors were looking at. I do mechanical calculations.

Q. I'm just trying to help the Commission understand how significant the effect of the ValueLine estimate is on the results of this.

A. On a -- in a mechanical calculation, it is a significant effect.

Q. On Schedule 17, which is based upon estimates of future growth, the comparable companies, the average of the comparable companies ranges from 7.98 percent to 10.09 percent?

A. Yes.

Q. And on Schedule 18, it ranges from 8.13 percent to 8.78 percent?

A. Yes.

Q. So for the comparable companies, the only DCF result that's included in these ranges that you have here that exceeds 10 percent is the one that's shown on Schedule 17 for the high end of the range for the comparable companies?

A. The only one that exceeds what percent?

Q. 10 percent.

A. Schedule 17 has a 10.9 percent.

Q. Yeah.

A. Maybe I didn't understand the question.
Q. I'm saying that is the only one, then, that exceeds 10 percent.
A. Oh, okay. You're qualifying that. Okay. I guess that's true.
Q. And you're recommending 12 percent in this case?
A. For Empire I am, yes, sir.
Q. And that's higher by nearly 2 full percent than the highest average figure for the comparable companies?
A. The average DCF calculation of comparable companies at the time I did my testimony, that's correct.
Q. Now, isn't it one of the underlying assumptions of the DCF model that investors invest for the long term?
A. Well, I've heard that stated before. And I think -- I think it's a general proposition that I wouldn't quarrel with it, and I think we discussed this in my deposition as we-- as well, as I recall. But I don't -- that requires a definition what constitutes long term. Some investors are not looking to stay in to retirement. They are looking to a shorter=term growth. The DCF is nothing more than a mathematical representation of why an investor would pay a certain

price for a stream of returns, and these stream of returns can come in the form of dividends or can come in the form of capital gains. Capital gains would determine expectations on the part of the investor when they exit the market, and it's just a mathematical representation. That relationship is really nothing more than that.

Q. The theoretical basis that underlies the derivation of the DCF equation, though, is based on a stream of income that goes into infinity actually, isn't it?

A. The mathematical derivation of that is to infinity, because to express mathematically when you don't know when an investor is planning to exit and you don't know what the capital gains is going to be at that point in time, you just assume it's going to go in perpetuity. I don't think any of us, in fact, invest expecting to hold an investment in perpetuity. We don't expect to be here that long.

Q. And if an investor sells a stock, he's going to sell it to somebody else that may hold it for a long time and that person may sell it to somebody else?

A. That investor has at least some expectation or rationale when they are under circumstances when they would exit that investment, and that would be selling the stock and taking the capital gain or capital loss, I guess

in some circumstances.
Q. But if an investor expects to sell the stock at some time in the future, he expects that there's going to be another investor that's going to be looking at the returns into the indefinite future; is that not right?
A. Not necessarily. If you expect the company to be acquired, for example, you're not necessarily expecting it to continue into the future. I'm simply just trying to draw reality between what the DCF formulation, which is just a mathematical formulation of why an investor will pay a certain price for a stream of returns, and the stream of returns we know about are going to come in the form of dividends, and what's not paid out in dividends because retained earnings, which shows up in capital gains.
Q. Would you agree that, according to DCF theory, that short-term volatility in earnings growth will be ignored by buy and hold investors?
A. I guess -- I guess generally I would say that's true. That seems -- that's implying a motivation on the part of the investors that I think takes -- I think you're saying it's assuming the DCF. I think it's -- I guess it's implied in the DCF formulation, if that's the question.
Q. The DCF tries to assume something about

what investors' expectations are, though, does it not?
A. The DCF represents a valuation of a stream of returns and is a mathematical relationship to reveal, if you will, the discount rate that the investors will apply to that stream of earnings based on the price they're willing to pay for it.
So if you know the stream of earnings and you know the price, the market price, then you can mathematically solve for the discount rate. And that's what we're solving here, just basic cost of capital is that discount rate.
Q. Do you know how ValueLine estimates its growth?
A. My recollection -- I think you asked me about that at deposition, and I think I told you my recollection is that they have assigned analysts -- and this is from time back as I recall, if I'm recalling it correctly. In other words, subject to -- I guess to reevaluating and check, that they assigned analysts and then they have what amounts to an internal review process that modifies that, and they report it as their opinion as to what growth is going to be.
Q. Okay. What I'm getting at a little more is the mechanical calculation of how they determine that. Is it not based upon earnings during a beginning three-year

period?

A. Mechanically, I think the math -- that representation I think would be correct, yes.

Q. And do you know what that -- what beginning three-year period would have been used in this case when they came up with the 6 percent estimate?

A. Probably for Empire, I'm sure you're referring?

Q. Yes.

A. And the time at which I believe the ValueLine was when I was doing my case, I think was January, and my -- I suspect they would be looking at 2001, 2002 and 2003. I can't be positive, but I think that would be right.

Q. Okay. And do you know what the ending three-year period is for the same analysis?

A. No. At that point I think it was -- that I *think I know with more accuracy, more certainty. I suppose it would have been 2006 to 2008. I believe that would be correct.

Q. Okay. So they're essentially estimating growth from about 2002 to about 2007?

A. A five-year period I believe is correct.

Q. Didn't you say the investor is interested in knowing what the future growth will be in earnings per share?

A. From the point at which time they make their investment, sure.

Q. On page 8, line 18 of your surrebuttal testimony, you state that the price range for Empire's common stock in 2001 was $17.50 to $26.60, to conclude that Empire's stock is viewed as being more risky now than it was then. Do you recall that?

A. I hope we have the same pagination. Can you give me that reference? I remember those numbers. It's the use of the term "risky" that I want to make sure I understand.

Q. Well, I don't think it was a quote. I think I was paraphrasing.

A. Well, I think I was pointing out the volatility of the stock, and volatility is only -- if I can clarify, volatility is only one measure of risk.

Q. I can read it to you. Beginning on line 17, as the schedule shows, the range in 2001 was 17.50 to 26.60. The current range is a much lower $17 to 22.45. Clearly the market appears to have assessed that Empire's common stock is more risky now than at the time of the previous case.

A. That's correct.

Q. Do you know what caused Empire's stock to

hit a high of $26.60 in 2001?
A. That probably would have been during the time in which there was still a likelihood of an acquisition of Aquila, but I can't be positive.
Q. Okay.
A. I think as I -- my recollection is that the announcement for the -- that the -- that the merger was not -- or the acquisition was not -- merger, acquisition, whichever was not to proceed, I believe, was like the first or second day of the trading day of the year, and the market dropped on that particular day. That's my recollection. So I think that high point would have been a carry forward from the previous year, which would have been influenced by the acquisition, and so the precipitous drop would have been a result of that announcement and may have been an overreaction. I can't be certain.
Q. Okay. But what I'm getting at is, it looks like you're suggesting there in your surrebuttal, page 8, that the drop from a high of $26.60 in 2001 to a high of $22.45 in the current range suggests that the stock is more risky now, but that explanation seems to suggest that it really has more to do with the termination of the merger?
A. Well, I think I was pointing out the volatility of the stock in that sense, but as to the fact

that that's a non-utility operation influence, I certainly would agree with that.
Q. The volatility resulted?
A. That sudden shift, yes.
Q. And wouldn't a rate of return witness typically exclude utility companies that are the subject of a merger because of the excess premium that investors place on the stock during the speculative period?
A. Well, if you put that answer in context, that it's referring to -- this is a surrebuttal testimony referring to Mr. Murray's rebuttal testimony, which was concerned about my use of the current stock prices or stock prices that did not go back that far in fact. I used a range of $17.22.45, which he thought was -- was inappropriate, and I was simply pointing out the company's stock had been volatile for some period of time. That was all.
Q. On page 7, lines 1 through 8 of your surrebuttal testimony, you state that Ibbotson Associates found that the CAPM understates returns for small utilities by 312 basis points. Do you recall that statement?
A. Yes. I attached a schedule which showed that.
Q. And you state this is based on Ibbotson's

studies of the company's SIC Code 49 for utilities?
A. That was the one I was citing, yes, sir.
Q. Do you know what other companies are in the SIC Code 49?
A. Specific companies?
Q. Specific or just a general description of the types of companies.
A. You can refer to that schedule.
Q. That's DAM-1 to your surrebuttal?
A. Thank you. SIC Code 49 is electric, gas and sanitary services as a group. That's the SIC code.
Q. So would it surprise you to know that there are many other companies classified under that SIC code that are not regulated utility companies?
A. I'm sure the sanitary companies especially would not be regulated utilities, at least in most jurisdictions.
Q. So the results of that Ibbotson study might be skewed a little bit on the basis of that, might they not?
A. Yes. And if you notice the Ibbotson recommendation for companies this size was not to use the 3.12 percent adjustment, it was to use a 1.7 adjustment, which is what I used.
Q. Okay. When you selected your comparable

companies, did you include any that are not regulated utility companies?
A. No.
Q. You said the CAPM produces significantly higher results than the DCF analysis?
A. Well, it depends on the CAPM and it depends on the DCF. In some circumstances in this proceeding for Empire, it certainly did, because I think it reflected a longer view and some of the market adjustments and the flat dividend forecasts and so forth. If you use those in the DCF, the numbers would be very low.
Q. Do you recall what the CAPM revealed, what the CAPM result was for Empire?
A. You're referring to my recommendation -- or my calculations?
Q. Yes.
A. Schedule 20 it shows 10.97, and 21, the other calculation shows 11.12 percent.
Q. What is the difference between 21 and 22?
A. They're two different methodologies. One's a more current measure than the other, and the other's more historical.
Q. But your recommendation in this case is still about a percentage point higher than the CAPM?
A. That would be correct.

Q. In your surrebuttal -- I'm sorry. In your rebuttal testimony, page 10, line 8, you state, throughout his analysis, Mr. Murray averaged averages, rendering his results useless for determining the investors' evaluation of capital cost. Do you recall that statement?
A. Yes, I do.
Q. Do you disapprove of averaging averages?
A. In general, I find it a very dubious methodology, because you're -- if you're attempting to take market prices and stream of earnings, dividends, whatever, to infer what the discount rate is from that market information and as a measure of cost of capital, but then you start averaging those ranges, you're losing that data, in a sense. And then when you average an average, you're sort of mixing all of this together and viewing it with something that you -- I find it very difficult to interpret it. That's why I guess I called it not very useful.
Q. And that's the reason that you said it rendered his results useless?
A. Yes. My response to, I guess, his testimony is that I considered it very mechanical, and almost like the DCF as a -- I did use the term I think vending machine. You put the numbers in, you pull the lever, and a number comes out and you call that the

answer. And I don't think that's an appropriate way to approach estimated cost of capital.
Q. Have you read Dr. Vander Weide's testimony in this case?
A. I've read it. I guess a way to describe it is I read it briefly, quickly is I guess the word.
Q. I'm primarily referring to the direct testimony. Would you agree that he made extensive use of averages in his analysis of Empire's cost of equity?
A. I would say that he has used a number of averages in his testimony.
Q. For example, in his DCF analysis he averaged the result of his analysis of 27 electric companies, correct?
A. I would accept that. I don't recall.
Q. And he averaged the result of 12 LDCs?
A. I would accept that.
Q. And he then averaged those averages?
A. I would accept that.
Q. To come up with his conclusion on what the DCF analysis shows for the cost of equity for the group of proxy companies, correct?
A. That sounds right.
Q. And then in similar fashion in his ex ante risk premium analysis, he averaged the result of

19 electric companies?
A. I don't remember precisely.
Q. Do you recall that he averaged the results of a number of electric companies?
A. I think that's what my recollection is, that's correct.
Q. And averaged the results of 12 LDCs? Or I'll represent that it's 12.
A. All right. And if you recognize -- if you're raising a question about averages, then you should point to my testimony. I always average my comparable companies as well, which I did, which we discussed.
Q. And then Mr. -- I mean Dr. Vander Weide averaged the results that he got on the ex ante risk premium method for the electric companies with the average from the gas companies?
A. That's -- I don't disagree with that. That sounds right.
Q. And then for his ex post risk premium analysis, he determined the ROE by determining the average risk premium, correct?
A. That sounds right, yes.
Q. And then he took those three results, the result from his DCF analysis, his ex ante risk premium analysis and his ex post risk premium analysis, each of

which was an average of averages, and averaged them, correct?
A. That sounds right.
Q. Do you approve of that?
A. You'd have to discuss the methodology with him, being obviously I approach things differently than that.
Q. I'm asking for your view.
A. I did not read his testimony as trying to critique it. I was trying to understand his result.
Q. Do you approve of that methodology?
A. Obviously I would not approach it that way. I think he's a very competent professional and I respect his work, and I'm sure he can explain his methods.
Q. Do you think that his average of averages was useless as Mr. Murray's was?
A. I didn't evaluate it to that extent, and I certainly wouldn't say that.
Q. Would you say that his approach was mechanistic
A. I don't think I would.
Q. Why not?
A. Because I think he has professional background, reputation, experience, to judge each one of those steps along the way and not treat it in a

mechanistic manner. And I didn't get that interpretation from his testimony at all.

Q. Am I incorrect to understand that there's only one answer that you could come up with if you did the calculations that he did? I mean, there wasn't a judgment factor in there, was there?

A. No. I can't speak to that. I presume there are judgment factors along the way, but I can't speak to that. I haven't discussed it with him.

Q. Okay.

A. We worked very independently in this case, as I think was indicated.

Q. With regard to the process of identifying comparable companies, are the criteria that Mr. Murray used suitable? I'm referring to his requirement that the comparable companies have greater than 70 percent of their revenue from electric utility operations, no nuclear operations and total capitalization less than $5 million.

A. I don't have a fundamental problem with those objective criteria.

Q. So your only complaint about Mr. Murray is that he didn't apply it properly, you testified?

A. I pointed out the problems I thought he had with him in applying it. I wasn't quarreling with the overall criteria. I think those are supportable. That

was my judgment at the time.
Q. Okay. Now, you criticized OPC witness Travis Allen for including large companies in his list of comparables?
A. Yes, I did.
Q. Have you reviewed Dr. Vander Weide's list of comparable companies?
A. I looked at his comparable companies.
Q. Does that include companies that are much larger than Empire?
A. Yes, it did.
Q. For example, Duke Energy?
A. I don't remember whether it was or not, but I think it was.
Q. Do you think it's okay to use -- for him to use such large companies as comparable?
A. I think the difference in Dr. Vander Weide and Mr. Allen was Mr. Allen used those companies and then took the results directly from that, and I think it was my interpretation of Dr. Vander Weide's testimony is he recognized there was a risk factor associated with size and he was using that as a benchmark. I don't think Mr. Allen did that.
Q. Would you say that Empire's equity is somewhat akin to a debt security?

A. Is their equity akin to a debt security?
Q. Yeah.
A. I think there is a difference between common stock equity and debt. I think their trust preferred is very akin to a debt security.
Q. Would you say that Empire's common stock is more like debt than a typical utility company?
A. If I understand that question, I don't think I would say that. I'm not sure that I understand the background of that question.
Q. Well, I'm thinking about the dividends, the fact that they paid $1.28 per year in dividends regardless of the fact that this exceeds their earnings. Isn't the payment of a fixed amount in dividends somewhat like the payment of a fixed amount in debt?
A. No, I don't think so. I think the fundamental difference here is contractual obligation of the company to pay debt interest, and the nature of dividends is the payment for a equity share of the company.
Q. Don't you think that investors regard the $1.28 dividend as practically a requirement, something that they can absolutely depend on?
A. I don't -- you'd have to ask some of the investors exactly what they think. I think, as I pointed

out in my testimony, there is certainly ample representation in the financial press that the dividend is exposed and it's at risk because of the high payout ratio over the last several years and the earnings in the company, and that that, of course, is one of the points of departure between my testimony and especially Mr. Murray's is what the meaning of that really is and what the real cause of that really is.

Q. Would you expect that if a company pays -- consistently pays a high level of dividends, and by high level I mean equaling or exceeding their earnings, and at the same amount every year, that for a company like that, the difference between the stock yield and the bond yield, which may be called the risk premium, would be smaller than it would be for other companies?

A. No. I certainly don't think so. If I follow that question, I'd say it would depend on the circumstances as to why the company was -- had a flat dividend policy. As I pointed out in my direct testimony, some of the questions that were in my comparable group, which are small electric utilities, had flat dividend or very low dividend growth. Those companies had growing earnings per share growth. They had earning per share growth that's positive, and they were obviously only reflecting that data.

I say it's obvious, that for some reason they were conserving cash and were not raising their dividends, but they were generating more cash. The situation for Empire is completely different. Its earnings are low. It's not made its allowed return, and -- but it's maintained the same dividend for the last 11 years and has a very conservative dividend policy but hasn't had the earnings to stay above that dividend threshold.

Q. What do you mean when you say conservative dividend policy?

A. They have not been raising dividends. I think most people buy a stock, they expect dividends to at least keep up with inflation and probably do better than that if it's a utility. I think that's been sort of the history of the industry.

Q. So the conservative policy has nothing to do with the financial management of the business, but only what kind of dividends the stockholders can expect to receive?

A. Well, I was using conservative in the sense that the company had not been raising its dividend. I was using conservative in that concept, if that's your question.

Q. Does Empire have a need to conserve cash?

A. I don't -- that's a management prerogative, and I am not privy to the board discussions or even those kind of discussions with management. I do understand that just in talking to people in the company and even asking those direct questions, I understand the company has capacity needs, and so they're going to have some financing requirements in the near term. And that, of course, will require cash for that, and I don't think they can generate that internally.
Q. Well, in your testimony I believe you distinguish those five companies that had reduced dividends from Empire in the sense that those were companies that were conserving cash. Was that not an important --
A. There's two different parts of my testimony. Are you talking about the comparable companies or the companies that I observed that actually cut dividends?
Q. I'm talking now about the companies that actually cut dividends. I think that's where you made the reference to conserving cash.
A. No, that's not. We're not talking about two different things here. The comparable companies -- let me be very specific. Let me get more specific.
Q. I'm not asking about the comparable

companies.

A. Well, the comparable companies have very flat dividends. That's my -- some of those have very flat dividends. If you refer to Schedule DAM-6, three of the comparable companies are not forecasted to grow any dividends or have had no dividend growth. That's Central Vermont Public Service, CH Energy Group and Hawaiian Electric. And MGE Energy, which this Commission's familiar with, has had a very -- virtually a flat dividend.

But in those companies I looked at the earnings per share. They actually had earnings per share growth I believe in every case. And they were actually -- when I say conserving cash, even though they seemed to have earnings, they were not increasing their dividend, but that's what distinguishes them from Empire, which has not been making its allowed return and has been maintaining its dividends. Its payout ratio has been higher than 100 percent over this period on the average.

Now, that's -- that distinguished that from the part of my testimony where I identified five companies that cut their dividends and the stock price fell on the average 25 percent the following year or the price earnings ratio fell by 25 percent.

And I was just pointing out -- I guess

that's my rebuttal testimony, I was pointing out Mr. Murray's recommendation that the company should cut its dividends, and I think if it cuts its dividend, I don't know that there would be that kind of a sharp fall in price. But if it cuts its dividend, I think it's going to be a bad signal to the market, and I don't think it would be a good policy recommendation at all.
Q. The questions I was -- the question I was trying to ask you was about those five companies that cut their dividends.
A. Okay.
Q. And I can't readily find the place in your testimony where you referred to that, but I know you did talk about five companies that cut their dividends. As I recall, you said that the explanation for them cutting their dividends was that they were companies that needed to conserve cash.
A. No. I think you're -- I think you're mixing the two different comments. Those companies -- well, I thought I had it also. Now, I can't put my finger on where those five companies are set forth. I observed that they cut cash and that the price earnings ratio went down.
I did not drill very deeply into why they cut their dividends. I mean, they may have cut dividends

for a number of reasons, but I think in some cases they were -- they were cutting dividends because of a particular need. I think they all did have positive earnings, as I recall. I did not identify companies that had losses. I think that was the distinction.

Q. I can't find the reference to it. Maybe I'll come back to it later.

A. But my recollection is there were like seven companies that cut dividends. Two of them had losses, and I took those out and looked at the five that as I recall had positive earnings and still cut their dividends, and it was those that the price earnings ratio dropped by a large percentage.

Q. In your direct testimony you testified at page 1, lines 19 and 20, that the cost of Empire's trust preferred securities is 8.93 percent. Do you recall that?

A. Yes, sir.

Q. Are these securities now available on the open market?

A. I don't think so, but I'm not positive about that.

Q. So I assume you don't know what they are yielding then based on current market price?

A. No, I could not answer that.

Q. Would it surprise you to learn that the

current yield on those trust preferred securities is about 8.5 percent or less?
A. I would accept that. I don't know.
Q. You testified that Empire's earnings on common equity have averaged 7.66 percent in the last five years, correct?
A. I think I have a -- I think I have a calculation of that, yes. I believe I recall that may have been ValueLine's estimate of the earnings I averaged.
Q. Now, does that include the one anomalous year, I believe 2001, when earnings were very low?
A. That would be correct.
Q. Do you know what the average would have been if that year was excluded?
A. No, but I can tell that your more salient point than what the average would be excluding that year would be -- and let me make a point of departure with Mr. Murray.
Q. I didn't ask you about that.
A. Well, what I want to point out is that 2004's forecast would be very low year, probably in the neighborhood of approximately 90 cents to $1 is the most recent estimate. So it's going to be in the neighborhood of 6 percent. And so we have by Mr. Murray's language two anomalous years out of last four.

MR. KRUEGER: I'd move that that be stricken, your Honor, as not responsive.

JUDGE THOMPSON: Any response, Mr. Swearengen?

MR. SWEARENGEN: I thought it was responsive. I followed it.

MR. KRUEGER: That's not the question whether it be followed or not. I followed it.

JUDGE THOMPSON: What was the question? Read back the question.

MR. KRUEGER: I think the question was --

JUDGE THOMPSON: Excuse me. I was talking to the reporter.

(THE REQUESTED TESTIMONY WAS READ BY THE REPORTER.)

JUDGE THOMPSON: I'm going to sustain the request to strike, so please strike everything from where Mr. Krueger said but that was not the question and I will urge the witness to please answer the question asked.

THE WITNESS: Yes, sir.

JUDGE THOMPSON: Now, Mr. Krueger, are you going to be much longer? Because we're overdue for a break for the reporter.

MR. KRUEGER: I'm going to be a while.

JUDGE THOMPSON: Well, then, let's go ahead

and take that break now and we will be back at five minutes after the hour. We are recessed.
(A BREAK WAS TAKEN.)
JUDGE THOMPSON: We'll go ahead and go back on the record. Mr. Krueger?
MR. KRUEGER: Thank you, your Honor.
BY MR. KRUEGER:
Q. Good morning again, Dr. Murry.
A. Good morning.
Q. I had asked you before the break about earnings on common equity earning 7.6 percent in the last four years. I'd ask what that average would have been if that year were excluded.
A. I didn't make that calculation.
Q. Okay. Do you know if that achieved the allowed return?
A. Well, if you look at my Schedule DAM-11, all the allowed returns since 1999 have been below the 10 percent number, and so I don't think if you removed the low number you would reach 10 percent. I can't see how mathematically that would work.
Q. Okay. So allowed return doesn't establish the actual return?
A. That's correct.
Q. Which depends on factors mentioned at the

bottom of page 10 and page 11 of your direct testimony?
A. So what's your question, sir?
Q. The factors that you mention there in the answer to the last question at the bottom of page 10 are the ones that affect whether the actual return equals the allowed return?
A. As I understand, yes.
Q. Do you contend that Empire's inability to earn its allowed return is evidence that the allowed return is not high enough?
A. I don't know that that's the -- it's obviously not the only cause. If the allowed return were higher and rates were set higher, then the company would have -- would earn more, it would make their allowed return is another question.
Q. You said that you reviewed Empire's dividend policy?
A. I reviewed their reported dividends and that I inferred that the policy had been over time to maintain the dividend, but I've not reviewed a document. I think we talked about that in my deposition as well. I've not reviewed any dividend policy document.
Q. Do you believe that Empire has a dividend policy?
A. Are you referring to a written dividend

policy?
Q. I'm referring to any kind of dividend policy.
A. I infer that Empire, because they've maintained a constant dividend over the last number of years, has a policy of not cutting its dividend, and I believe that that implies that there's a policy judgment to maintain that dividend.
Q. And you're basing that just on the history of dividends paid?
A. Yes, I think that's a fair statement. Now, I've talked to people in the company, but I've not investigated any other contrary policy to that.
Q. Do you know how they established the dividend policy?
A. How they set $1.28 as an annual dividend?
Q. As I understood --
A. If you go back, I think it's 12 years, I think you'll see that they raised their dividend by four cents in that one year, and I think before that there have been more common raises, but they've been constant for a long period of time.
Q. How do you understand the dividend policy at the present time?
A. I think I've answered that. I can only

infer what the company is doing, which has been maintain the dividends over time.
Q. And do you know how they established that policy of maintaining the dividend over time?
A. I don't think I understand the question. I think among utilities, because of the nature of the utilities by being companies that are often viewed as income companies by many of the investors, the dividend is very important because they're looking to it as a form of cash for retired people, the expression widows and orphan stock and so forth. And so I think maintaining a dividend is usually important to utility investors, and I've inferred from the performance of Empire that they have viewed it the same way. I can't speak specifically to that, however.
Q. You said that dividend is important to utility investors. I guess that's what I was getting at a little earlier when I asked whether the common stock of Empire is more akin to or like a debt in that the maintenance of that given level of dividend seems to be very -- placed very high in importance.
A. I would agree with that. I think I said that in my direct testimony as I remember, a comparison between the utility and say Microsoft, which for years has never paid a dividend, but people have invested in it for

its potential growth value.
Q. On page 12 of your direct testimony you describe the dividend payout ratio of 70.8 percent as healthy and common for your comparable companies. Do you recall that?
A. Yes.
Q. Why do you think a 70 percent dividend payout ratio is healthy?
A. I use the term "healthy" because it represented from my experience electric utilities and also gas utilities maintaining dividends in that general range. It would seem to be what many investors in utilities would expect, which is roughly a third of the earnings going back into the company and about two-thirds of the earnings being paid out over time in dividends. I was using that as, I guess, a pejorative term that looked about -- 70 percent looked about right to me that was a comparable company's dividend payout ratio.
Q. Okay. If that's healthy, what would you consider to be unhealthy?
A. Well, I'm -- I think financially the dividend payout ratio of over 100 percent of Empire is -- it puts something at risk obviously. It's a -- requires cash to pay the dividend, and it probably signals that if the company doesn't earn more money, the dividend is at

risk. I think the financial community's recognizing that.
Q. So that is unhealthy?
A. Well, I said I was using it a pejorative term. I think it represents a pending -- something's -- I guess another way of expressing it is, something's got to give. You can't continue to pay out dividends and receive earnings in perpetuity.
Q. And Empire has had a policy of maintaining that level of dividend over about 12 years, despite the fact that the dividends -- that that results in a payout ratio in excess of 100 percent?
A. Yes. And I think under the circumstances, they've done the best they could do.
Q. But they are maintaining a healthy dividend payout ratio?
A. No. You're extending what I said when you make that -- that becomes a statement. That's not a question really, because I think I said that there is a pending event, if you will, and the financial community recognizes that. The company cannot continue to pay out all of its earnings in dividend. It certainly can't do that and raise cash to build plant capacity, provide good service. It won't all fit through that -- that doorway, I guess is the way to describe it.
Q. Even though it has done so for 12 years?

A. Yes. But I repeat, investors look to utilities and I think this utility as income-producing investments, and dividends are important to them. That's been the classic case of utility investments.
Q. In your deposition you stated that this has been the case for a couple of years, a number of people are recognizing it, and I think it's important to -- it's undoubtedly important to investors. It's hard to imagine why it is not. I'm sorry. I should have told you what it is. It is the exposed dividends of Empire. Do you recall making that statement?
A. I remember that statement. I don't remember the exact context, but I remember the statement.
Q. You also said that investors who are knowledgeable are likely to look at the history of the circumstances as cases that you cited and think that dividend is at risk and they would look at Empire as a company which could be forced to reduce its dividends in the near term, and they would price it accordingly and invest in it accordingly. Do you recall making that statement?
A. Yes, I do. I believe that to be the case.
Q. What did you mean when you said that they would price it accordingly?
A. I think if -- well, I cited, and that was

the motion to strike some of my testimony which was simply citing what some financial analysts are saying about this company, its inability to earn its allowed return, the lack of fuel adjustment clause, depreciation problems, et cetera, that recognizing that, and ValueLine, for example, I think is one that said, advise investors to stay on the sideline at the present for this company. And I just said, knowledgeable investors will be aware of that. That's the context of that statement, as I recall.

Q. So when you say that they price it accordingly, you mean that they make a decision not to buy?

A. That's a good way to describe it, yes.
They consider it very risky maybe, and they would look elsewhere for another investment.

Q. And if that's the case, then isn't the possibility of a dividend kind of already priced into Empire's stock?

A. I don't think it is judgmentally. I think it's possible it could be. I don't think by any stretch of the imagination it is, because I think there's a lot of waiting and watching probably. That's just a supposition. I haven't tested that. Don't know how.
I think -- I'd like to point out that --
that at least ValueLine thinks the company, I guess, is

going to recover from this low level of previous earnings to a degree, make up some of that difference, and that's why they're forecasting a high earnings growth. So that results in a high DCF type of calculation. The DCF doesn't necessarily pick all of those kinds of judgments up, and we have to recognize that.
Q. But if the investors price it accordingly and invest in it accordingly, doesn't the price, the market price reflect that fact?
A. Over time, I think it will do so. And I think it -- I said, I think you cut the dividend, the price is going to go down. And interestingly enough, that's contrary to some fundamental financial theory that that shouldn't happen. I think it's going to happen. I think if the company's forced to cut the dividend, I think you're going to see the price fall.
Q. In your direct testimony, you stated that a cut in dividend, in Empire's dividend would result in an increased cost of common equity?
A. I think over time it will, yes. I think it also is likely to cut -- I think you're likely to see that impact the cost of debt as well.
Q. But in your rebuttal and surrebuttal testimony you cited that Modigliani and Miller dividend irrelevance theory.

A. That's -- that was the theory I was referring to.
Q. And you used that to refute Mr. Murray's argument that Empire's high payout ratios are resulting in an increased cost of capital to Empire, didn't you?
A. Yes.
Q. What is your position on the issue of the dividend irrelevance theory? Did you subscribe to that?
A. I think it's an accepted, now it's several decades old, theory that's been generally accepted in finance and economics theoretically, but there are some questions about applying certain circumstances. And I think there is basis to raise that question. I've been looking as a matter of fact at that very question empirically, and I think it's -- I think we can actually find some evidence that where there are essentially proofs of exceptions of Modigliani and Miller.
Q. So you think you generally accept it but --
A. It's a general theory, which I think is always the case, subject to qualification.
Q. I'm going to try to paraphrase that theory, and you tell me whether you agree with this statement of it. It maintains that the value of the firm depends only on the income produced by its assets and not on how this income is split between dividends and retained earnings.

A. Sounds okay to me.
Q. Okay. Now, there's other dividend theories besides the dividend irrelevance theory, aren't there?
A. I would say yes, there are bound to be.
Q. I'm specifically thinking of the bird in the hand theory and the tax preference theory.
A. I think I discuss both of those in some part of my testimony.
Q. Do you agree that those theories are inconsistent with one another?
A. Of course. Those are two of the reasons why the foregoing theory may have some problems.
Q. Which of them do you subscribe to?
A. As a matter of fact, when I said I'm working on trying to empirically test that, that's something we're working on right now as to whether -- which of those may have the stronger influence.
Q. Does that mean you haven't come to a conclusion?
A. That's correct.
Q. Does it depend, do you think, upon the particular company?
A. I think it's likely to be the case, maybe more -- it may more likely depend on industry as opposed to a company, but I think I could accept that.

Q. Which best fits Empire's situation, which of those three?

A. Well, since I think that Empire is -- under its circumstances if it cuts its dividend, I think the market price is going to go down. That would essentially be setting an empirical argument or an argument for its circumstances in which Modigliani and Miller did not apply, and that I think would be a reaction to the market, because they are watching this particular case and the performance of Empire, the investors.

Q. My understanding then is that the one that you would find most applicable to Empire is the bird in the hand theory?

A. Well, this goes into an area of belief that I don't think anyone in this room really wants to pursue very far. I think the -- I think when one talks about the bird in the hand, we're talking about payment now as opposed to payment later. And I think what you have is you have to understand the economics language the utility service or the preferences of the individual investor as to how they value payments now versus value in the future. And we're obviously all somewhat different and we reflect that -- it comes together and gets reflected in the marketplace. So you say generally, does that mean bird in the hand applies? The answer is what

that really tells you is maybe and maybe not. It may depend on the circumstances. Gets back to the question about specific companies, specific industries and group of investors that are choosing those industries.
Q. So you can't rely on any of these theories and come to a conclusion about what's going to happen to Empire?
A. I would not rely on any of these theories exclusively as to what's going to happen to Empire. I will say with rather strong feelings that I think if they cut their dividend, it'll send a bad signal to this particular market because of the attention that's being paid to Empire at this point in time. That's why I say I think it will cause stock prices to drop. And obviously I can be wrong, and I don't want anybody to run out and make any investments on that prediction. And I think this sends a bad signal also for their debt securities.
Q. Most of the dividend theories don't even contemplate a situation where dividends exceed earnings, do they?
A. No, they don't, because most of these theories assume an efficient marketplace and that will have all been taken care of in a perfectly competitive, efficient market. That's kind of basic undergirding theory, and when that doesn't exist, and it obviously

doesn't exist all the time under all circumstances for all companies, then there can be exceptions to that assumption.

Q. Is there any level of dividend payout ratio at which you would recommend that a company cut its dividend?

A. I wouldn't recommend cutting a dividend strictly on the basis of payout ratio. I would say that if the company has no alternative -- I think a utility should try to maintain its dividend, which I think this company has done. I think a utility should recognize that many of their investors are looking for income, and that's their clientele, if you will, for their security. I think they should try to protect their dividend.

Clearly cutting the dividend as has been recommended by Mr. Murray is a position that the company can go to to conserve cash. I think it's an unfortunate step if they have to go there. I think it would be a mistake to push them there. I think it's a mistake to say the company's not earning its allowed return, has not for years, has not raised its dividend, that the problem with that company is it's got too high a dividend. That's classically almost a joke. The company has a high payout ratio because its earnings are too low, pure and simple.

Q. So even if the payout ratio is say

200 percent, you wouldn't think that the high payout ratio would necessitate a reduction?

A. If the company had a 70 percent payout ratio year after year and an anomaly happened that one year, the company had to borrow money to pay its dividend and it was a utility, I could see that being a very sound policy. So a 200 percent payout ratio would be very high, but that would not necessarily be a bad decision on the part of the board. So you have to look at the specific circumstances.

Q. But we're talking about a situation in which the payout ratio has exceeded 100 percent on average for a dozen years.

A. Yes. And I recorded that, and I think that's a good way to characterize the problem the company has with maintaining its dividend.

Q. Do you think it's possible for a company to get ahead of itself when growing its dividend without a corresponding increase in earnings?

A. Do I think a company can grow its dividends too fast and get ahead of itself? Yes, I do.

Q. You said in your direct testimony at page 13 that the prices of stocks that cut their dividends -- of companies that cut their dividends dropped in the year after the dividend cut?

A. The price earnings ratio fell rather sharply, yes, sir.
Q. Do you know whether the prices of those stocks rebounded after the end of that year?
A. I didn't really look beyond that. I was looking at the immediate effect of that, which I mean, there could be -- I mean, I'm not trying to say the only reason stock dropped was because dividend cutting. I'm simply reporting those are companies with positive earnings, and I didn't look just at the price. I looked at the price earnings ratio. So the market was valuing that dollar of earnings much lower in the subsequent year after the dividend cut.
And that's all I was reporting, but I didn't -- and if you read the language in which I reported it, I didn't report anything beyond that. I'm just saying empirically, those are five companies recently cutting dividends with positive earnings and that's what happened to the price of their stock. I tend to think it will happen to this company also, but that's my judgment.
Q. Okay. So that wasn't a post proctor hoc argument. Because it followed, you're suggesting that that was the cause?
A. I did not make that claim.
Q. Okay. And you don't know what the prices

are -- price to earnings ratio of those stocks are presently?

A. I didn't follow them. I just observed that subsequent year.

Q. And you don't know the cost of common equity at the present time or the effect on it?

A. It was whether or not they rebounded or something, no, I didn't review.

Q. How do you distinguish between the other comparable utilities who have flat dividend because they need to conserve more cash and Empire, or do you distinguish between them?

A. I do. I pointed that out in my direct testimony. Earlier today I pointed out the schedule to refer to that my comparable companies had at least, but they did not have the payout ratios that Empire has.

Q. But you said that those companies needed to conserve more cash?

A. No, I didn't say needed to. I interpreted that they were conserving cash because their dividend was constant and their earnings were growing, which means they're retaining a bigger percentage of their earnings, and I said I would infer from that they made a decision to conserve cash.

It doesn't surprise me at all that -- I

found this in the gas industry as well. It doesn't surprise me at all that companies are doing this when you put it in the background of what's been happening over the last, say, 10 years with increased deregulation, companies that are utilities being viewed as more competitive market and looking a little more like industrial firms.
I even pointed out how the Dow Jones Utility Index is acting a lot more like the Industrial Index. It doesn't surprise me that the boards of these companies are starting to look a little more like payout ratios of industrial companies, which means conserving a little more cash, not growing their dividends at quite the same reliable rate. But knowing what they discuss in their board meetings, I have no idea.
Q. Do you believe that Empire has a need to conserve more cash?
A. I answered that question differently earlier concerning that I understand they have capacity requirements, and that if they're going to be financing capacity growth, I'm sure they're going to have a need for cash, but I am not privy to any of their cash management.
Q. Now, if Empire distributes all its net income to its shareholders, doesn't that reduce its cash?
A. Of course.
Q. Does that strengthen its financial position

or weaken it?
A. It would weaken the cash available on that side of the balance sheet, if that's your question.
Q. And if it weakens the financial position, does that lower the risk of owning the stock or increase the risk of owning the stock?
A. That's part of what I'm saying. I think the stock price would go down. When dividends are cut, I think that would be signaling a problem. I think the people that evaluate the viability of the dividend would consider that a weakened position is lower payout.
Q. Do you contend that the higher the risk of owning Empire's stock is, the higher the allowed return ought to be, or do you think there's other factors as well?
A. Well, I certainly think there are other factors to consider. I think that's a very important factor, but I wouldn't say that's the only factor, if I understand your question correctly.
Q. I believe you testified that you sought to assure yourself that your recommendation would be consistent with other regulatory agencies. Do you recall that?
A. I attempted to do that, yes, sir.
Q. But not to establish a recommendation, only

as a guide to whether it was consistent?
A. I used it in more of an evaluation of the credibility of my -- my recommendation, but I looked at that at the time I was determining what the recommendation would be, so I think it would be -- it could have and would have influenced my judgment, might have made me rethink things. But I used that as verification that I thought I was on the right track and where I was finding recommendation.
Q. Did you investigate the facts surrounding the three authorized ROEs that you mention on page 30 of your direct testimony?
A. I didn't go into great detail. No. I did not look at, I guess, two of them. One was in Iowa and one was in Illinois. I did not look at the facts around those two returns.
The one mentioned in Oklahoma was a case I was in. As a matter of fact, that was an Empire case, and that was 11.27, as I recall, from equity. And as I mentioned earlier, I thought that's an important comparison in one sense because of the fuel adjustment clause in Oklahoma.
Q. Did you -- did you ascertain, for example, whether the rate base is calculated in the same way in those states as Empire's rate base is calculated here in

Missouri?
A. I did not.
Q. Did you determine the capital structure of those companies to verify that they're comparable to Empire?
A. I don't recall that I did. I may have looked at that at the time. I was reporting the allowed returns and was reporting what was available, but whether I reviewed the capital structure or not, I may have. I probably did look at ValueLine for those companies. I don't recall how it affected my recommendation.
Q. You referred to that Oklahoma case. Was that a case that was litigated?
A. I'm trying to remember. My recollection is that it was litigated, and also I'm thinking it may have settled in the process of litigation, but I don't recall precisely.
Q. Okay. Do you know if the Staff witness in that case performed a company-specific DCF analysis or proxy group analysis?
A. I don't recall.
Q. Do you know what models the Staff witness used in that case?
A. I don't recall. I don't recall who the Staff witness was in that case.

Q. Did you investigate the risk associated with those companies I think you mentioned on page 30 of your direct testimony?
A. No. I think it would be safe to say I didn't really look specifically at the risk of those two companies.
Q. And the rates of return that you recommended in this case is actually higher than the ROE that's authorized for any of those companies; isn't that right?
A. That's correct. I also reported -- we're talking about comparison of two cases. I also reported another place in my testimony that for the first quarter of this year, I believe, all the electric companies in the average in the US reported and it was 11 percent, which is much higher than the other two witnesses in this case or the Staff and the OPC witness in this case.
Q. But again we don't know how comparable those cases are to the Empire case, do we?
A. Not -- not specifically.
Q. What you're talking about is just an overall average of companies throughout the United States without an understanding or analysis of a specific facts associated with each one?
A. I think that's fair.

Q. Do you follow the price of the common stock of Empire?
A. I sort of follow it. I don't follow it closely.
Q. Do you know the current price?
A. I haven't -- I haven't checked it. The last I knew, it was in the low 20s, 20, 22 range.
Q. Do you know if it's changed, what direction it has changed in recent months?
A. Yes. I can refer you to a schedule, schedule -- in my surrebuttal, Schedule 4 shows the closing prices for Empire District Electric Company from the 2nd of January, 2004 to the 5th of November, 2004. And if you notice the point of that schedule was at the time of my testimony, it was $22 a share. At the time of the surrebuttal testimony, it was slightly over $22 a share.
JUDGE THOMPSON: Mr. Krueger, can I break in for a moment? Is this the same ground you covered in the deposition that's already been received into the record?
MR. KRUEGER: I don't recall whether I asked these specific questions or not, your Honor. I've only got a few more.
JUDGE THOMPSON: Please proceed.

BY MR. KRUEGER:
Q. The price of Empire has increased in the past months then, at least according to that chart, correct?
A. I was going to say, if you look at that chart, you can see it grew rather sharply in the period this fall.
Q. Does that indicate that Empire's still able to attract capital?
A. I would answer that affirmatively. I think to -- I think really to extend the price theories in that direction, you'd want to also seek the comparison to the total market. As we all know, since the November election there's been a runup in the market generally, and that has certainly provided some of the boost to Empire. I haven't tried to do that analysis or segregate that.
Q. Have you seen any evidence that investors are no longer willing to invest in Empire's securities?
A. No. I think there's -- I think -- I think at a price Empire can sell its securities, of course.
Q. Any reduction of interest in investing in Empire's securities hasn't been reflected in the demands for the stock, has it, trading volume?
A. Well, I don't know how many -- I haven't reviewed the trading volume. I can't -- I can't answer

that question.
Q. Is it your testimony that the credit watch that you cited dated, I believe, September 28th of this year increases Empire's cost of equity?
A. I think it would certainly be, as I called them earlier, knowledgeable investors. I think people who are watching the national press would be aware of that and it would influence some of their decisions, if that's responsive to your question.
Q. Do you think the change in the price of the stock since September 29th or September 28th supports that conclusion?
A. I don't see a contradiction.
Q. You stated that the cost of common equity increased approximately 45 basis points from the time you filed your direct testimony and the time that Mr. Allen filed his direct testimony. Has that changed since then?
A. Well, if you look, that was the purpose of that Schedule DAM-4, and of course that has been wiped out because of the recent runup, but if you look at the price when he filed his testimony of -- it was $20.27, and at the time that I filed my testimony, it was $22. And so that was a result of change in the market price and the yield. I was just reporting that.
MR. KRUEGER: Thank you. That's all the

questions I have.

JUDGE THOMPSON: Thank you, Mr. Krueger.

Mr. Coffman?

MR. COFFMAN: Thank you.

JUDGE THOMPSON: Now, Mr. Coffman, let me just say that I'm planning to break for the noon hour as close to the noon hour as possible. I would also please urge you not to please unduly prolong cross-examination. Thank you. You may proceed.

MR. COFFMAN: Okay. Thank you.

CROSS-EXAMINATION BY MR. COFFMAN:

Q. Good morning, Dr. Murry.

A. Good morning.

Q. Is it correct that the growth rate is a key component to the discounted cash flow model?

A. Yes. I think we discussed that at some length earlier today.

Q. Is it correct that, all other factors being equal, that the larger the growth rate in the DCF model, the larger the return on equity estimate would be?

A. Yes, of course.

Q. And the 6.00 percent growth rate that you used to develop your return is directly, I guess, added to your recommendation of 11.88 to 13.53 percent? In other words, it's --

A. We've covered all this earlier, but yes, I certainly --

JUDGE THOMPSON: Dr. Murray, let me urge you to please just answer the questions as directly as possible.

THE WITNESS: Thank you, sir.

JUDGE THOMPSON: Thank you.

BY MR. COFFMAN:

Q. I don't think that this will take as long as Mr. Krueger does, but provided I can get direct answers. And just to make sure that we have a foundation for what I think is one of the most important parts of your testimony, that the 6 percent growth rate that you used was obtained by you solely from the ValueLine document?

A. Yes.

Q. And -- and is it true that in your deposition that you stated your opinion that this 6 percent ValueLine growth rate was not the opinion of only one analyst?

A. I think I characterized it as there was an analyst following Empire, but the -- the process that I understood earlier, that was why I was indicating I answered this also earlier today, and I haven't -- I haven't changed that view. I haven't done any more to see

if it's changed, is that ValueLine goes through a process of review that involves others. So there's a person that essentially develops the original reporting, but then it goes through an internal crew.
Q. Do you know who that analyst is?
A. I can't recall the name.
Q. Would the name Paul E. Debbis (ph. sp.) be the name that is on that ValueLine sheet?
A. I was going to say, you can find it at the bottom of ValueLine's sheets, and I would accept that without finding the sheet.
Q. And you haven't since done any investigation or talked to ValueLine to find out whether there were any more than just one analyst reviewing this?
A. No, I have not.
MR. COFFMAN: Permission to approach?
JUDGE THOMPSON: You may.
BY MR. COFFMAN:
Q. I'm handing you a copy of an e-mail, and would you identify who that e-mail appears to be from?
A. Well, it seems to be from Paul Debbis.
Q. And who does that e-mail appear to be to?
A. Travis Allen.
Q. Would you please read the short e-mail answer there at the top?

A. Sure. It says, Hello, I have two questions. One, is Paul Debbis the only analyst at ValueLine that covers Empire District Electric? In the annual rates box marked on item 23, page 21 of the publication, the word it says here is entitled, spelled with an I, so I think it just --
Q. Could I interrupt you for a moment, please?
A. Sure.
Q. Would you -- just regard to that one question, the first question, would you refer to the top of that e-mail then and --
A. Sure.
Q. -- and please read into the record the answer to that first question?
A. It says, Travis, the growth rates and the annual rates box are used on the actual date and projection. The ValueLine analyst who covers the stock, I'm the only analyst who covers Empire District for ValueLine. Paul Debbis, ValueLine.
Q. Do you have any reason to believe that that's not correct?
A. No. I think that's consistent with what I said. I think there's an analyst that follows the stock and does the original provisional work.
Q. So you wouldn't -- you wouldn't testify

today that the ValueLine 6 percent number was the basis of any consensus of analysts?

MR. SWEARENGEN: Your Honor, I'm going to object. He's asked him this question about four different ways, and he's saying his impression is there's one. I think that's what he tried to prove with this document that his witness obtained, and --

MR. COFFMAN: The deposition --

MR. SWEARENGEN: -- asked and answered.

MR. COFFMAN: The deposition of Dr. Murry in the record -- which is now in the record states that Dr. Murry believes that this was a consensus opinion, and I just would like to know that based on --

JUDGE THOMPSON: I believe the question is proper. I'm going to overrule the objection. Please answer.

THE WITNESS: I don't recall exact language in the deposition, but I -- my opinion has not changed since the deposition, and that is that an analyst follows a company, and that's -- this is -- and I told you at the time of the deposition, I was basing that on what I'd learned about ValueLine sometime in the past, and I think it was somebody from ValueLine speaking at a conference, but that analyst does the initial work and then it goes through a review process.

So I don't think it's -- I don't think I ever thought or ever said that I thought there was a group that got together and hammered out what you call a consensus, but as I understand there is a review process.
BY MR. COFFMAN:
Q. So the answer to the question is that a consensus number, and the answer is no?
A. I don't recall ever using the word "consensus."
Q. Okay.
A. I think you've always used that word. I think you used it in my deposition.
Q. Thank you.
A. I think you're using it this morning. I don't think I've ever used it.
Q. Thank you.
Now, is it correct that in this very crucial ValueLine sheet, that the -- it uses the -- ValueLine uses the last or the latest three-year base period in which financial data is available to produce an ending -- to compare it against an ending three-year projection period in determining its estimated growth rate?
A. Mechanically, as I testified earlier, that's my understanding how to do the calculation, yes.

Q. Okay. And if you were to look at the ValueLine page that you drew the 6 percent growth rate, would you agree with me that the three-year historical period that was used in that calculation was 1999 through 2002?
A. Well, I think I testified earlier I was speculating that it was 2001 to 2003, but if that's what the January ValueLine said at the time of my testimony, I would have said that.
Q. Okay. I mean, I have a copy of --
A. I'm saying you have it in front of you; you can look it up.
Q. Do you have a copy of it in front of you?
A. I can find one.
Q. I've got an extra. Does it not appear on that sheet that the 2003 data is projected and not actual?
A. Oh, yes. The 2003 data are projected.
Q. Okay. So you'd agree with me that the historical period used here was 1999 through 2001?
A. Well, I'm not quite agreeing with that, because I don't know that that --
Q. Or rather --
A. This was published in the beginning of 2004, and exactly whether they considered that 2003 acceptable or not, I don't know. I just can't testify to

that.

Q. Do you understand the calculation that ValueLine uses in determining its estimated growth rates?

A. I guess I don't understand that question.

Q. The 6 percent number that you pulled from this document would be in the box on the left-hand side more than half the way down the box entitled annual rates?

A. That would be correct.

Q. Third column?

A. Yes.

Q. Do you understand how that 6 percent number is mechanistically calculated?

A. Oh, I -- okay. Yes. As to the -- in that particular box the estimated '02 -- '00 to '02 is 6 to 8, and you said '99. So that's why I guess I'm confused.

Q. Okay. So that the record is clear, would it appear from that document that you used that the 6 percent number was taken from historical 2000 to 2002 comparing to 2006 to 2008?

A. Well, not necessarily. Let me explain. If you go over to the right side, you also see an earnings per share growth for '06 to '08, and we will make internally a calculation of what we know currently versus that forecast and calculate our own growth rate based on this as well.

Q. When you say --
A. We al-- and we also use and refer to the box which you're referring to, which is over on the left side, which says '00 to '02 to '06 to '08. It just so happens I think in the case of Empire you get 6 percent as a reasonable estimate either way you make that calculation.
MR. COFFMAN: Permission to approach?
JUDGE THOMPSON: You may.
BY MR. COFFMAN:
Q. Would you please identify what I've handed you, Dr. Murry?
A. You've handed me the How to Invest in Common Stocks Guide Using ValueLine Investment Survey. It's the document they send out with their -- to their subscribers.
Q. And is this the document that helps you interpret these ValueLine sheets?
A. Certainly.
Q. Would you turn please to page 14 of that document and take a look at the gray box entitled calculating annual rates of change.
A. Okay.
Q. If you would review that and tell me if that is the way you understand how ValueLine calculates

its annual rates.
A. Yes, I think it is.
Q. Now, referring to the ValueLine sheet that you used, isn't it true that the earnings per share that Empire achieved in the year 2001 was 59 cents?
A. Yes, I'll accept that.
Q. And looking at the other earnings per share over the entire historic period reflected there, would you consider this to be representative of a normal year's earning for Empire?
A. Over that same period? Please clarify the question. I'm sorry. I don't understand.
Q. Well, if you look at the entire earnings per share from 1987 all the way through 2002, is that 59 cents -- how does that 59 cents compare to the earnings per share in any of those other years?
A. 59 percent was a very low year.
Q. The 2001?
A. Yes, the 59 cents in 2001 was -- I'm sorry, I misspoke. That was a very low year.
Q. Was that not the year when there was speculation about Empire merging with UtiliCorp?
A. 2001 was, yes. It wasn't speculation. It was an announced merger.
Q. Wouldn't the factors surrounding that year

perhaps explain the anomaly in that year, 2001?
A. I can't answer that. I don't know what the company's impact on earnings would have been from a merger, so I can't answer that.
Q. Well, understanding as you do the way ValueLine calculates its projected growth rate, if you were to eliminate earnings per share from the calculation of 2001, would you be able to tell me what ValueLine would have produced as far as a projected growth rate?
A. Mr. Coffman asked me that question. I answered I've not made that calculation.
Q. Would you be able to do that calculation?
A. I certainly could do it.
Q. Okay. Could you do that as you sit here today with a calculator?
A. If I had the numbers in front of me, I can do it. I've already testified it would lower the -- the average.
Q. Would you agree with me that it would produce a -- would you be surprised if that would produce a growth rate of 3 percent, or would you need to do the calculation yourself?
A. No, I'll accept that.
Q. And if you applied a 3 percent to -- as the growth rate to your discounted cash flow analysis, would

you not have arrived at an 8.8 percent on the low end and a high end of 10.53 percent?
A. Yes.
Q. Do you recall in your deposition that you did not believe that Empire would be able to sustain a 6 percent growth rate in the long run?
A. I recall that question. I can't recall exactly what I was asked, but I said I did not think they could sustain 6 percent in perpetuity.
Q. Is it your opinion that a growth rate estimate that is only sustainable the short run is appropriate to use in the DCF model?
A. Please repeat that question. I didn't follow it.
Q. Do you believe it's appropriate to use a growth rate in a DCF model that is not sustainable in the long run? And by long run I mean say 30 years.
A. I think for the purposes of investors in a utility such as this, the time horizon of the investors is something certainly shorter than the 30 years you mentioned, and it's the -- and I think we're setting rates for a period of time in this case approximately intended to be targeted around three years or something like that. So I don't think it's -- it's irrelevant what the purpose of setting cost of capital in this case is about.

Q. So is it your opinion that the theory of the discounted cash flow model only requires that your growth rate be sustainable for a three-year period?
A. No, I didn't say that.
Q. How long does the theory of the discounted cash flow require a growth rate to be sustainable?
A. As we said earlier, the discounted cash flow is nothing more than mechanical representation between price and an income stream, and what's really important is the perception on the part of investors who are paying that price for stock as to the income stream that they anticipate what their return is.
Q. That doesn't answer my question.
A. I don't think there -- it does answer the question, because you're taking a mathematical reduction of that concept and trying to say that's the theory of investment, and it's not. It's a mathematical representation of how to calculate the discounted --
Q. Excuse me.
A. -- the discounted value.
Q. Dr. Murry, isn't it true that the theory of discounted cash flow method used properly assumes that a -- that the growth rate is continuously sustainable?
A. The mathematical representation is that it's sustainable indefinitely into infinity, but that's

not necessarily what investors are expecting and it's not necessarily what they're buying when they pay for a stock price, they pay for stock.

Q. Could I refer you to your Schedules DAM-17 and DAM-18?

A. Certainly.

Q. As to your direct testimony, Exhibit 11 --

JUDGE THOMPSON: Mr. Coffman, I notice we've reached the noon hour. I hate to break when you've just asked a question, but we'll come back to this question at one o'clock.

MR. COFFMAN: Thank you.

JUDGE THOMPSON: Thank you.

(A BREAK WAS TAKEN.)

JUDGE THOMPSON: Mr. Coffman, do you remember your question or do you need it read back?

MR. COFFMAN: I believe I do. I think I was at the beginning of one line of questioning regarding Standard & Poor's.

BY MR. COFFMAN:

Q. Welcome back, Dr. Murry.

A. Thank you.

Q. Isn't it correct that Standard & Poor's has estimated Empire's growth rate to be 2 percent as shown in your Schedules DAM-17 and 18?

A. That's correct.
Q. And is it your understanding that this S&P growth rate is a consensus growth rate?
A. Yes.
Q. Do you know how many analysts made up that consensus?
A. My recollection is I think there are four, but I'm not positive.
Q. Isn't it correct that the Thompson Financial consensus growth rate estimate used by Mr. Allen on his Schedule TA-9 was a 2.5 percent growth rate?
A. I'll accept that. I'd have to look at that, but I think that's correct.
MR. COFFMAN: Permission to approach?
JUDGE THOMPSON: You may.
BY MR. COFFMAN:
Q. Okay. Dr. Murry, do you identify what I've handed you?
A. Yes. That's a book. The author is Roger Morin and the title is Regulatory Finance Utilities' Cost of Capital.
Q. I assume you've seen that book before?
A. Yes.
Q. Could I draw your attention to page 155 of that book?

A. Okay.

Q. Starting at about the third paragraph there. Generally, I assume you have read this book before?

A. I have a copy and use it for reference, yes.

Q. Without asking you to read anything particular from this, would you agree with me that Dr. Morin believes that a consensus growth rate is preferable to relying on any particular analyst?

A. I don't know that he has generalized that statement. You'd have to -- you'd have to point me precisely to that. My recollection is that he prefers analysts forecast to other methods of measuring the growth rate, such as historical or the br+sv methods, but if you want me to get to a particular group of analysts that he would prefer, you'd have to give me a citation. I don't recall that.

Q. Let me move on. Do you know who Dr. Myron Gordon is?

A. Yes.

Q. Is he often referred to as the father of the DCF methodology?

A. Yes. We discussed this in my deposition, as I recall.

Q. And he supports the br+sv growth rate, does he not?
A. Yes.
Q. And --
A. But that was about 40 years ago.
Q. And you criticize the use of the br+sv growth rate methodology, do you not?
A. Yes. I would not use it.
Q. Okay.
A. Or in -- only in very special circumstances.
Q. You provide three criticisms of this methodology in your testimony, correct?
A. I think that's right.
Q. Did you take these criticisms from Dr. Morin's book?
A. Well, I don't think that Dr. Morin was the originator of any of those criticisms, but I think his book is a good summary of regulatory economics and finance, and so in providing that, writing my testimony, I may have referred to -- I probably did refer to Morin at that time. I was familiar with his comments on the br+sv method from earlier cases and so forth.
Q. Could I refer you to pages 161 and 162 of Dr. Morin's book there?

A. Sure.
Q. Pages 161 and 162.
A. I believe in my testimony I actually made reference to it, but I don't remember for sure. Okay. I have it.
Q. If you review those pages, and I would ask you, do you find the three criticisms that you cite in your testimony on those pages? These are the criticisms that you --
A. I'm reading it now.
Q. I'm sorry.
A. The first comment that it's more direct just to forecast growth than it is to calculate it through the br+sv is here, and that was one of my criticisms.
Q. If I could stop you with that, your first criticism. Now, your criticism is that it's more difficult to estimate the components of a sustainable growth rate than the growth rate they embody; is that a fair summary?
A. I think that's almost a quote, isn't it, from my testimony?
Q. I believe it is. You have acknowledged, though, that it is possible to estimate the components of a sustainable growth rate?
A. Certainly it's theoretically possible.

Q. And is it true that your second criticism is that the br+sv growth rate is circular in nature?
A. I don't recall using the word circular. I think the point I'm making is that -- that you actually have to estimate, which is probably a different way to express it than Dr. Morin has. I have a schedule that points this out. You have to assume a return in order to estimate a growth rate.
And the schedule I pointed out in my testimony, I think it's in my rebuttal testimony, I point out a schedule where I just simply showed the returns that were estimated by Mr. Allen in order to cal-- for his comparable companies in order to calculate a growth rate. And every one of those returns was higher than the growth rate he produced by his forecast of his predicted growth rate. That's obviously an inconsistency. Whether you call that circularity or not is another issue.
Q. So do you -- would you -- would it be a better characterization of your testimony to say that you do not believe that the sustainable method of determining growth is significantly correlated through methods of values such as stock price and price earnings ratios? I believe that's what you said in your deposition.
A. Well, I think you would have to put it in context. That seems to be the kind of statement, if I'm

understanding you correctly, I'd want to hear in context, but that sen-- that statement just taken off by itself, I don't find anything wrong with it, but I -- it seems to be a little bit out of context.
Q. And is it correct that on the day of your deposition you were unable to cite to any empirical articles that supported your criticism, correct?
A. I think -- I think you were asking me at the time about a specific article that criticized the br+sv, and I think I could not recall an article at that time.
Q. Have you since found any empirical studies which supports this criticism?
A. Are you talking about any criticism?
Q. This is your second criticism of the br+sv methodology.
A. The circularity of it?
Q. Yes.
A. I don't know that I -- to me it's intuitively obvious that if you assume a number that's higher, to then estimate a number that's lower, there's something wrong with the method, and that's why I said I don't recall if that's circular or not. If you didn't know --
Q. Let me get an answer to my question,

Dr. Murry. Are you aware of any empirical studies that support this criticism?

A. Well, you can refer to my Schedule DAM-2 in my rebuttal, which shows that American Electric Power, Mr. Allen assumed 11.5 percent in 2004 to estimated growth rate, which produced a DCF estimated cost of capital using sustainable growth in his Schedule TA-9 of 10.18 percent, and you can find that 11.5 percent in his TA-9, page 3 in the middle of the page.

MR. COFFMAN: Your Honor, I would ask to strike that previous statement.

JUDGE THOMPSON: What exactly do you want to have struck?

MR. COFFMAN: At least the statement, since I asked for a direct answer to my question.

BY MR. COFFMAN:

Q. I'm looking for the -- are you aware of any empirical studies that support this second criticism?

A. And my answer was, yes, I made one. That was my simple answer. And look at my Schedule DAM-10. That's empirical. Those are the numbers.

Q. Okay. And by your -- that answer, you're considering your work to be an empirical study?

A. It's empirical because it's a quantitative statement of fact.

MR. COFFMAN: Permission to approach?
JUDGE THOMPSON: You may.
BY MR. COFFMAN:
Q. Could you please identify what I have handed you?
A. This is testimony before this Commission in the Missouri Gas Energy Case GR-2004-0209, surrebuttal testimony of John C. Dunn on behalf of Missouri Gas Energy.
Q. Could I direct you to the first flag or tab there?
A. Certainly.
Q. And identify the schedule.
A. That's a -- if I'm following correctly, the first tab, it appears to be a deposition of Roger Morin.
Q. And if I could refer you to page 91 of that deposition.
A. It's also tabbed. I have it.
Q. And if you would please read lines 21 to 25 on page 91.
MR. SWEARENGEN: Your Honor, I'm going to object to further questions about the deposition of Dr. Morin, who is not a witness in this proceeding. That deposition was taken in another case. If the Public Counsel wanted to have Dr. Morin come and testify as a

witness on his behalf, he could have done that, but to attempt to put that evidence in through cross-examining my witness is certainly improper.

MR. COFFMAN: Your Honor?

JUDGE THOMPSON: Well, it's my understanding, Mr. Swearengen, that in Missouri you can present a witness with anything during cross-examination and ask a witness to comment on it, so I'm going to overrule the objection. Please proceed.

MR. COFFMAN: Thank you.

BY MR. COFFMAN:

Q. If you would please, just read that short question and answer from Dr. Morin's deposition from the Missouri Gas Energy case.

A. My question to you is, are there any academic studies that indicate the alleged circularity of use of the sustainable growth method? Answer, I haven't seen that except in my own publications.

MR. COFFMAN: Thank you. I think that's all.

JUDGE THOMPSON: Okay. I think it's time for questions from the Bench. Commissioner Appling?

MR. COFFMAN: Your Honor?

JUDGE THOMPSON: I think you said that's all.

MR. COFFMAN: I'm sorry. With that document. I apologize. Just two more lines of questioning, please.

JUDGE THOMPSON: I do apologize, Mr. Coffman. Please continue.

MR. COFFMAN: I am trying to expedite it as much as possible, but I do have a couple more.

BY MR. COFFMAN:

Q. In response to Data Request from my office -- I'll skip over that, too. Isn't it correct that in your rebuttal testimony you criticize Mr. Allen's return on equity recommendation as being insufficient to assure the financial confidence in Empire that you believe would be necessary?

A. I think under the -- yes, that's correct. Under the circumstances that Empire finds itself in today, I think that's correct.

Q. And do you support this claim by estimating what Empire's funds from operations to total debt and funds from operations to interest coverage would be if this Commission adopted Mr. Allen's rate of return recommendation?

A. Well, those are two of the factors. I also looked at the interest coverage of returns that I

calculated in my direct testimony, and looked at the general returns in other jurisdictions for electric companies today, and I evaluated conditions of Empire. I think his recommendation is inadequate.
Q. And in making this criticism, you compared what you believe the result would be to certain guidelines that you say are established by Standard & Poor's for these funds from operation of ratios?
A. That's correct.
Q. And did you not originally report in Schedule DAM-9 of your rebuttal testimony that Mr. Allen's recommendation would result in funds from operations to interest coverage ratio of 2.4 -- or 2.54 times?
A. Yes.
Q. And isn't it correct that you later corrected this calculation in your surrebuttal testimony?
A. I -- yes, I submitted a correction to that in surrebuttal testimony based on further information from Standard & Poor's. And I thought it was probably more conservative to do that.
Q. Isn't it correct that you illustrate in your surrebuttal Schedule DAM-6 that witness Allen's recommendation would produce a funds from operations interest coverage ratio of actually 3.54 times?
A. Yes, by the change in methods of

calculation.
Q. Okay. And would S&P -- has S&P assigned Empire a business profile based on their number system?
A. Yes, they have.
Q. Would that be a score of 6 for Empire?
A. Yes, I think that's the recent score.
Q. Is it correct that S&P recommends as a guideline that a company with a business profile of 6 obtain a funds from operation and interest coverage ratio of somewhere between 3 and 4.2 in order to be in the BBB category?
A. I think that's a correct criterion, yes, at this point.
Q. Is it correct that, based on your own calculations of Mr. Allen's recommendation, Empire would, in fact, obtain a funds from operation interest coverage of 3.54, which is within S&P's recommended range for an investment grade bond rating that is within the 3 to 4.2 area?
A. Well, that's the reason I changed that -- that calculation. It -- a person in my office has been spending a lot of time talking to Standard & Poor's, and apparently there is some disagreement as to how to make the calculations themselves. I thought this was more conservative, but that would be -- that would be an

acceptable range. That doesn't address the other calculations and it doesn't address the interest coverage overall, which I calculated.
Q. But on this calculation after you have corrected the result --
A. Yes.
Q. -- Mr. Allen would fall within that BBB category?
A. And I acknowledge that in my surrebuttal.
Q. Could I refer you now to your Schedule DAM-8?
A. Direct testimony, right?
Q. I believe it is, yes.
A. Okay. I have it.
Q. Please read the title that you've given this schedule and explain what it attempts to calculate here.
A. Schedule DAM-8 is the one we talked about early this morning. Its title is Price Earnings Ratio Electric Utilities Before and After Dividend Reduction.
Q. Perhaps we have the wrong schedule. I'm actually -- take a look at your rebuttal testimony.
A. Rebuttal Schedule DAM-8.
Q. You have different DAM-8s?
A. Well, some are labeled -- the direct

testimony is Schedule DAM-8.

Q. Okay.

A. And then the others are rebuttal and surrebuttal.

Q. I guess we need to be more precise then. I am, in fact, asking you to look at rebuttal Schedule DAM-8.

A. Yes.

Q. Would you please read that title and explain what you attempt to --

A. It says Office of the Public Counsel witness Travis Allen calculation of funds from operations to total debt.

Q. Now, Mr. Allen did not prepare this schedule, you did, correct?

A. That's -- I guess that's correct, yes.

Q. And isn't it correct that the cost of equity that you show there on line 2, which is 9.29 percent, is, in fact, the recommendation of the Staff witness in this case and not Mr. Allen's recommendation?

A. I guess that appears to be correct.

Q. That's what I was afraid of. Is it possible that you have misidentified Mr. Allen from the Office of the Public Counsel with the Staff witness and that the inputs that you place on lines 1, 2, 4 and 5 are,

in fact, from another witness?
A. That's certainly possible, yes, sir.
MR. COFFMAN: I'm going to hand you a copy of a -- if I may?
JUDGE THOMPSON: You may.
BY MR. COFFMAN:
Q. I'm handing you a copy of a document that I would believe corrects your calculation of Mr. Allen's testimony, replacing the inputs on lines 1, 2, 4 and 5 for Mr. Allen's actual recommendation? Could you review that to see if that is, in fact, what I have given you?
A. I think that's correct.
MR. COFFMAN: Your Honor, I'd like to mark this as an exhibit.
JUDGE THOMPSON: Okay. This would be Exhibit 119. What shall we identify this as, Mr. Coffman?
MR. COFFMAN: That's a good question. I guess you could call this OPC correction of rebuttal DAM-8, low end.
BY MR. COFFMAN:
Q. In fact, the cost of equity recommendation is Mr. Allen's low end recommendation, is that -- would you agree with that, Dr. Murry?
A. That's correct.
(EXHIBIT NO. 119 WAS MARKED FOR

IDENTIFICATION BY THE REPORTER.)
BY MR. COFFMAN:
Q. And you would agree, would you not, that the calculations made here appear to be consistent with the calculations that you attempted to show in DAM-8?
A. They appear to be, yes.
Q. And would they show under this corrected schedule that the funds from operation of total debt on line 13 when using Mr. Allen's capital structure weights would show his low end cost equity at 8.96, that you would arrive at the ratio of funds to operations to total debt of 18.64 percent?
A. That's what it shows, yes.
MR. COFFMAN: Okay. I would offer this exhibit into the record.
JUDGE THOMPSON: Any objections to the receipt of Exhibit 119?
(No response.)
JUDGE THOMPSON: Hearing none, the same is received and made a part of the record of this proceeding.
(EXHIBIT NO. 119 WAS RECEIVED INTO EVIDENCE.)
BY MR. COFFMAN:
Q. Dr. Murry, I'd like to offer you -- show you one more schedule, and what I've attempted to do here

is show Mr. Allen's high end.
MR. COFFMAN: I would, I guess, ask that this be marked.
JUDGE THOMPSON: This will be Exhibit 120. And how we shall identify this one?
MR. COFFMAN: This should would be the same title, only that it reflects the high end of Mr. Allen's recommendation.
(EXHIBIT NO. 120 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)
BY MR. COFFMAN:
Q. And I'd like you to take a look at the calculations there and let me know if you see any problem with that and whether you would agree with me that that would be a proper calculation of your schedule?
A. Those calculation appears to be consistent with DAM-8.
Q. And that is consistent but at Mr. Allen's high end?
A. Yes.
Q. Okay. So you would agree with me that even with the -- even with low end of Public Counsel's recommendation, and based on the S&P recommended ranges, that Empire would still remain investment grade under these guidelines?

A. Well, that's under the -- there was a revision to Standard & Poor's guidelines, and as --
Q. Did that revision change the appropriate ranges for funds from operations to total debt?
A. It did. It broadened the ranges. For example, as Mr. Murray pointed out in his testimony, the range for that particular guideline was 20 to 27 percent at the time of his testimony.
MR. COFFMAN: I'm going to hand you a document, if I may.
JUDGE THOMPSON: You may.
BY MR. COFFMAN:
Q. Can you identify what I've handed you?
A. That's the Standard & Poor's updated -- or its revision of their guidelines as of June 2004.
Q. And is that the document that you referred to?
A. Yes, that was the document I was just referring to.
Q. And what does that document show to be the proper range for a utility with a business risk of 6 in order to remain in the BBB category with regard to funds from operations to interest coverage ratio?
A. Funds from operations to what category?
Q. To --

A. To total debt?
Q. -- total debt, yes.
A. Okay. It says funds from operations to total debt of 15 to 22 for a 5 category for BBB.
Q. Okay. That's the new -- is that for a utility with a business risk profile of 6?
A. That's for 5. 18 to 28's for 6.
Q. Okay. So 18 to 28 is the new revised recommended guideline?
A. Right.
Q. Okay. Wouldn't it be true that either at Mr. Allen's low end or high end recommendation, that you would have either an 18.64 percent or a 19.08 percent coverage?
A. Puts them at the very bottom of that range.
Q. But within the range, correct?
A. Yeah, it's at the bottom of that range, true.
MR. COFFMAN: If I've not offered Exhibit 120, I would like to do so.
JUDGE THOMPSON: Very well. Do I hear any objections to the receipt of Exhibit 120?
(No response.)
JUDGE THOMPSON: Hearing none, the same is received and made a part of the record of this proceeding.

(EXHIBIT NO. 120 WAS RECEIVED INTO EVIDENCE.)

BY MR. COFFMAN:

Q. You were sent a Data Request from Public Counsel; the number I believe is 2101. And if you recall, did you not indicate that a capital structure consisting of a market value of common equity but also with a book value of long-term debt and a book value of preferred stock would be unorthodox?

A. I think I -- I think I called it that, yes.

Q. Did you not also say that it would be inappropriate for utility ratemaking?

A. What was that number, 21?

Q. 2101.

A. I recall discussing this at the deposition, and I think the Data Request had come in before then. I can't seem to find 2101.

Q. I may have a copy if you'd like to see it.

A. I think I see the problem here. They're not in numeric order.

MR. COFFMAN: Permission to approach?

JUDGE THOMPSON: You may.

BY MR. COFFMAN:

Q. Would you please read the answer to Public Counsel Data Request 2101 that's there toward the bottom after -- listed after the words "list printed material and/or files included".

A. Dr. Murry believes the hypothetical company method for us to make capital structure would be unorthodox and in almost all cases inappropriate for ratemaking.

Q. And that was the method I was talking about where you had a market value for common equity and a book value for long-term debt and a book value for preferred stock.

A. Yeah. You had established a hypothetical, two hypothetical companies and -- with different equity ratios, and you'd asked me which of those I prefer for ratemaking, and I told you which one I prefer and the other's less common.

Q. Would it be fair to say that there's somewhat of a mismatch there in that example, using a market value common equity in that example?

A. Well, they're different.

Q. Isn't it correct that Empire's other cost of capital witness Mr. Vander Weide used this methodology in developing his capital structures for his proxy groups?

A. As I understand, yes.

Q. Just so that I'm clear on your opinions on this, during your deposition you said that in -- if I may paraphrase, that only in a very rare situation would you use this type of capital structure?

A. I think you are paraphrasing, because I think I give an example in my deposition of a case where I'd done this at least once, and I thought -- and I thought maybe twice.

Q. Okay. Was that situation where you might use this is where a company needs to recover the costs of assets it acquired at a price above book value?

A. That was one of the examples that I recall at my deposition where I specifically recall doing this in a case.

Q. Is that currently the case with Empire District Electric Company?

A. No.

Q. Is there another example where you might want to do this?

A. I was trying to remember. I thought there was another case I was involved in which the situation was somewhat similar in adjusting the equity based on market.

Q. I could refer you to your deposition if you'd like me to.

A. You can read my deposition. That would be fine.

Q. Well, the deposition is in the record, and

I suppose will stand for what it --
A. Well, my deposition is what I can recall at that point in time.
Q. Well, sitting here today, can you recall any other situation where it would be appropriate to use such a hybrid capital structure?
A. No. I said I thought there was another case in which I did, but I can't give you that case at this point. At the deposition I was less certain of that.
Q. Earlier in cross-examination you were discussing a criticism of Mr. Allen's comparable companies in that he included companies that you believe were too large based on market capitalization. Do you recall that?
A. Yes.
Q. Do you know what would happen if you removed those five companies from his ROE and CAPM analysis?
A. No, I didn't make that calculation.
Q. Have you reviewed Schedules TA-11 and TA-12 to Mr. Allen's testimony?
A. I'm sure I have at some time in the past.
Q. Can I refer you to those schedules?
A. TA-11 and 12?
Q. Yes.
A. Okay. I have those.

Q. And looking at those schedules, could you tell me whether those -- do you recall which of those five companies you believe were too large to be included in your opinion?
A. I would have to check my testimony to tell you specifically which companies were.
Q. Would you accept that that was American Electric Power, First Energy, FPL, Progress Energy and Southern Company?
A. Yes.
Q. Okay. Can you tell from looking at those schedules whether those companies appear to be riskier than Empire District Electric Company or less risky?
A. Are you talking about on the basis of beta?
Q. Yes.
A. The betas for -- for AEP are very high. For Southern they're not, or the beta is not. FPL, the beta is about an average.
Q. Would you believe, and looking at the data there, that if these five comparable companies were removed from Mr. Allen's recommendation, that actually his return on equity recommendation would lower?
A. Mechanically, I can accept that if you made that calculation, you might get a lower number. That doesn't address the question of whether they're

representative companies for analysis or not.
Q. One other question here. In your direct testimony, you quote S&P -- that is Standard & Poor's -- with the statement regarding the elimination of Empire's recent temporary fuel and purchased power mechanism. Do you recall that statement in your direct testimony?
A. No. Please refer me.
Q. It was on lines -- or rather page 16, line 9.
A. And what's the statement again?
Q. I'm looking there at the Standard & Poor's statement regarding what Standard & Poor's calls the recent elimination of Missouri's temporary fuel and purchased power mechanism.
A. Okay.
Q. Is it your understanding that that refers to the interim energy charge that was approved about the year 2001?
A. That I think was -- and I'm referring to Standard & Poor's, and I think that would be what they had in mind.
Q. Have you reviewed any of the testimony or the Commission's decision from Empire's last rate case, ER-2002-424?
A. I've not reviewed it recently.

Q. Are you aware that Empire requested to end that mechanism prior to what its original term would have been?
A. I didn't recall that.
MR. COFFMAN: This may be all that I have. Just a minute.
That's all I have, your Honor.
JUDGE THOMPSON: Thank you, Mr. Coffman.
Questions from the Bench. Commissioner Murray?
COMMISSIONER MURRAY: Thank you, Judge.
QUESTIONS BY COMMISSIONER MURRAY:
Q. Good afternoon.
A. Good afternoon.
Q. Dr. Murry, on page 30 of your direct testimony you cite some decisions that were shown in Public Utilities Forthrightly November 15, 2003 issue.
A. Yes, ma'am.
Q. Those cases, the Illinois, Iowa and Oklahoma cases that are shown there with the ROEs between 11.116 and 11.72, do you know if those were ordered by the Commission after a hearing where the Commission decided the issue or if they were approved by Stipulation & Agreement?
A. I do not know positively. I know it had to be a stipulated return or it would not have been reported

to this organization. The one in Oklahoma I was involved in, and my recollection is that that went to hearing, because I remember being at the hearing.
Q. All right.
A. I think it may have settled actually in the process of the hearing.
Q. And do you know -- can you think of any reason that Empire in Oklahoma should be significantly different from Empire in Missouri in terms of an ROE?
A. If there's a reason, I should think it would be higher in Missouri, because Oklahoma has a fuel adjustment clause. Other than that, I can't -- I'm not aware of enough of the different procedures to say there's no difference. But that's the one I'm aware of that does distinguish Oklahoma from Missouri.
Q. And the existence of the fuel adjustment clause provides -- to the financial analyst when they're looking at a company, it provides less risk; is that correct?
A. Yes. They view that as a way to recover the fuel costs, and they see that as less risk to the cash for the company.
Q. And any time there is what is perceived as more risk, the analysts decide that there should be a higher ROE to compensate for that; is that correct?

A. They would estimate that the -- the ROE should be higher, yes, and the investors would expect that.
Q. On Exhibit DAM-5 that's in your direct --
A. Yes, ma'am.
Q. -- you show the comparison of ROE, and on your first line you show Empire for various years, and that is actual returns; is that correct?
A. Yes, I believe that 2003 was, in fact, still estimated, because this was published in January 2004. So I think the numbers were not -- they may have altered slightly as the books were closed, but this would have been -- this would have been as of the end of the year estimate.
Q. And for the other -- for the comparables that were shown there, are those actuals or allowed ROEs?
A. Those are actual. These are the numbers reported as actual returns on common equity as reported by ValueLine.
Q. And on DAM-6, you indicated that yield varies with prices. Does that mean that as the share price falls, the yield, assuming the same payout per share, rises?
A. That's correct. If you invest after the price falls, you would view that as having higher yield

because the dividends would be the same.
Q. And on DAM-7, there you show the five-year average payout, dividend payout of Empire as being 125.2 percent; is that correct?
A. Yes, that's correct.
Q. And most -- the comparable averages were at 70.8 percent, meaning that they're not paying out their full earnings, correct?
A. That's correct.
Q. Do some states disallow paying dividends in excess of earnings, do you know?
A. No, I do not, and I would -- I'd consider it very unusual if they did. I think most states view that as a -- so long as it stays within respectable bounds, I would think that most states would allow the company to pay above earnings, especially if they view it as a short-term phenomenon.
Q. I'm sure the company would much prefer to have earnings that would allow it to pay the dividend and still retain some earnings; is that correct?
A. I would think that would certainly be the case, yes.
Q. But as it is, empire has maintained the same dividend for how many years now?
A. I think we're at the end of 11 years.

Q. Okay. And I assume has made some sacrifices with cash flow in order to be able to do that to maintain interest by the investment community; would that be accurate?
A. I would say that that's very accurate, yes, ma'am.
Q. Can you tell me on DAM-9 the significance of the safety ranking there?
A. That's just a ValueLine ranking relative to the entire market. This is not just utilities. That's a ranking that they assign to a common stock as to how safe they view the investment. And if you look at the comparable companies I used, only Central Vermont is a 3. The rest are 1s and 2s. 1 is the highest of all stocks. You'd expect utilities to be a relatively safe investment. That's the nature of utility.
And the point of this schedule is simply to point out that Empire is now viewed by ValueLine as approximately the average industrial investment. They don't move up to the level of what you would think of as safety for utility.
Q. Okay. And traditionally utilities are expected to pay rather good dividends, are they not?
A. They're expected to pay reliable dividends, because they're viewed as income stocks historically. As

we were discussing earlier this morning, I don't want to repeat, but with deregulation and the change in the competitive structure, I think investors are viewing utility stock somewhat differently now than they did 10 years ago. I think they still are viewed primarily as income stocks, and people invest in them for retirement and for the dividend payment.

Q. If the company is paying out all of its retained earnings in dividends, does that make the company more risky in the analysts' view?

A. Certainly it makes investing in -- in this particular case, because of the long period of time of the cost of dividends and now with the payout ratio in the last several years, it's higher than 1 or 100 percent. The dividend is obviously exposed, and so the financial community is all recognizing that.

Q. Because they recognize that at some point you might have to cut back on the dividends in order to remain --

A. Something has to happen. There either has to be more earnings or something has to happen. It can't continue forever.

Q. Can you tell me on DAM-10 what is the significance of that schedule timeliness?

A. Timeliness is another category that

ValueLine assigns to common stocks. That simply tells the investors just a general recommendation of whether or not this is a timely -- whether or not it's timely to invest in this security at this point in time. And a five is the lowest category. Essentially ValueLine is saying this is not a good time to invest.
Q. And the average of the comparable utilities was at a four. So right now they're not saying that it's a -- very timely to invest in utilities at all; would that be accurate?
A. I would say that ValueLine is not -- at this time is not representing a very favorable view of utilities.
Q. Your DAM-12 where you're showing growth, growth rate summary --
A. Yes, ma'am.
Q. -- I can't think what my question was on that.
You show ValueLine projections for Empire for earnings per share at 6 percent and one other one there?
A. That's Standard & Poor's earnings per share.
Q. Oh, I'm sorry. Okay. Then MGE Energy you show at 6 percent as well; is that right?

A. That's correct.
Q. And one other one, Central Vermont you show at 7.5 percent. But then the others are much lower than that?
A. Yes.
Q. What would contribute to a -- an estimate of a higher growth rate? And let me ask this before you answer that: I see that, for example, Empire for the five-year historical earnings per share was at a negative 3.5, and Central Vermont was at a negative 3. However, MGE was at a -- MGE Energy was at a 4.5 positive. I was wondering if the negative history contributed to the higher projection, but it doesn't appear to correlate.
A. Well, I don't -- I don't know about the MGE case specifically, but I think in the case of Empire and Central Vermont, that is the case. Essentially the base is being lowered, and if the company is -- part of growth rate is actually started recovering back to where it might have otherwise been without that reduction. I can't speak to MGE.
Q. So a 6 percent growth rate wouldn't necessarily mean the earnings per share were particularly attractive, would it, if the earnings per share history for the past five years has been a negative 3.5 percent?
A. Well, it creates an analytical kind of

quandary. If you look back and say, what's the history been and how does that indicate the future, then that's very discouraging. If you look forward and say what are the opportunities of this company to recover from this base and you're an investor, you would look at that growth rate going forward, because you'd be starting now going forward because you didn't suffer loss if you didn't hold the stock presently.
Q. The favorable tax treatment that is available to dividends right now is available to all companies; is that correct?
A. Yes.
Q. So that investors could choose any company that's paying a dividend and get the same favorable treatment?
A. Yes.
Q. So among other things, if Empire's dividend payout is not as attractive as its comparables, then that would be a disincentive for investment in Empire; is that right?
A. Yes, you've got that right.
Q. When growth is calculated, is that calculated on total earnings per share?
A. Well, in this -- in the numbers which I view as on growth on book value or percentage of growth

with book value is the number. Book value is a measure of the assets invested to provide service, and we're looking at that as a base load investment.

Q. And it doesn't have anything to do with the amount of retained earnings necessarily?

A. Well, the higher -- the higher the level of retained earnings, if invested back in the company and the company would stimulate growth, so there is a relationship between retention and growth.

Q. Yes. All right. I see that. Certainly. And if the company is having to pay out all of its earnings in dividends, then it's less likely to be generating growth?

A. That's right. And the very practical, real case here, which I think that implies, is that the company needs to expand. It needs cash to expand.

Q. On page 11 of your rebuttal testimony, at the bottom of the page, you indicate that two of the four companies that Mr. Murray used had decreased or suspended their dividend payouts because of financial contingencies in recent years. And I was wondering, are both of those companies below investment grade?

A. I don't remember off the top of my head, and I'm not sure I have that with me.

Q. You say they don't represent healthy

electric utilities?
A. Both of those companies have had difficulties. Ducane's (ph. sp.) problem is similar to many companies that got involved with nonregulated activities that didn't work out well, and so they were -- they were -- I think the language I used was they were unwinding their non-regulated enterprises.
In the case of DP&L, there was apparently financial fraud within the company, and at the time of my testimony, even my rebuttal testimony, the 10Ks and the 10Qs have not even been filed with the FCC, so the data were not even good as to what was happening.
And I haven't followed that case. I don't know what's happened. But in DP&L, I do have my testimony that DP&L has fallen below investment grade. I don't remember about Ducane line.
Q. In your opinion, is it appropriate to use a below investment grade company as a comparable in determining what a viable utility should be earning?
A. No, absolutely not for a -- as a comparable company. You should be looking at a healthy company so that we can use them as a benchmark for analysis.
Q. Do you have any idea -- I mean, have you ever seen a below investment grade company used in comparables before?

A. I don't think I have, and I don't think I've ever seen it used intentionally, knowingly.

COMMISSIONER MURRAY: I would think that would be extremely unusual. I think that's all. Thank you, Judge.

JUDGE THOMPSON: Thank you. Commissioner Gaw?

CHAIRMAN GAW: None at this time.

JUDGE THOMPSON: Commissioner Clayton?

QUESTIONS BY COMMISSIONER CLAYTON:

Q. Good afternoon.

A. Good afternoon.

Q. I want to ask just a couple of questions, and I apologize. I didn't bring your direct testimony downstairs, so I'm going to ask some questions that may seem repetitive that's in your direct testimony, but I bring that -- well, I'm not going to read it either right now.

A. Okay.

Q. Thank you. But I hope that's all right.

A. Certainly.

Q. I know you don't like repetition on questions, but I may need to do that just to get a few things straitened out here.

First of all, how long have you been in the

regulatory business or regulatory affairs?
A. Well, I guess since 1966. I believe that would have been the first time I was involved in a regulatory matter.
Q. Were you a witness or were you employed by a utility or were you consumer advocate or staff?
A. I've never been asked this question. I've testified here a number of times. My first regulatory assignment was with this Commission, and I was hired as a consultant and I set up the economic and finance department or I wrote a recommendation that they set up the economic and finance department, and I actually helped hire the first person in the department.
Q. Here at the Missouri Public Service Commission?
A. The Missouri Commission, yes, sir. And this is the first commission I testified in as well. That's the reason I remember, it was 1966, because that was the year I got my PhD.
Q. My goodness. So you were hired as a consultant by the Commission?
A. To set up the economic finance department.
Q. Do you still have your check stub?
A. No, but I'm sure I was underpaid.
Q. We'll see about that. How much were you

paid back then in 1966?
And you were -- so were you self-employed when you were acting as a consultant?
A. I was on the faculty on the University of Missouri St. Louis.
Q. So you were at UMSL. And since 1966, has your occupation been testifying in cases such as this or did you hold a formal position in a utility or a staff or consumer advocate?
A. I've done all those things. I have been on faculty at the University of Missouri - St. Louis. Then I was hired as director of research center at OU, University of Oklahoma. Spent the rest of my professional career there. I took leaves of absence, both from Oklahoma. At one time I was chief of the economic studies division, Federal Power Commission, before it became FERC.
Another time I took a leave of absence and was vice president for Stone and Webster, also in Washington, D.C. Since 1966 I've always been a consultant, usually part-time. With Stone and Webster it was full-time. I become emeritus about five years ago, and I've been mostly a consultant since then.
Q. Okay. What year would that have been?
A. I think that was five years ago, so that would have been '99, I believe.

Q. Five years. Okay. And how many states have you testified as an expert witness on ROE rate of return issues?
A. It approaches 40, but I'm not sure. It may not be quite that high.
Q. Okay. And for how many different utilities have you been employed or acted as a consultant, would you say?
A. I'm not positive. 20 to 30, probably.
Q. Okay.
A. I've been employed by the -- by non-utilities as well.
Q. Okay. You've been employed by intervenors?
A. Yes.
Q. Consumer advocates?
A. Not recently.
Q. Not recently. When was the last time you were hired by a consumer advocate? You may want to leave your card for Mr. Coffman.
A. Probably about four or five years -- well, I wouldn't call it -- I guess they were not consumer advocate. I was in a FERC case about five years ago on behalf of electric cooperatives and wholesale power returns in Washington and that was -- so they were customers, I guess, in that case.

Q. Okay. And that was -- that was four or five years ago then?
A. I think it's been at least five years ago.
Q. Okay. Have you ever testified on behalf of a commission staff?
A. Well, when I was at Federal Power Commission I was actually director of the group that testified.
Q. You were the staff, you were FERC staff?
A. Well, I directed the staff in this area.
Q. Okay.
A. And I testified there.
Q. Do you testify exclusively on electric utilities or do you provide financial analysis for all utilities, gas, water, electric?
A. I'm a little bit different than some cost of capital witnesses in that I'm -- I view myself as an economist and not a finance major.
Q. Okay.
A. And so my view is a little bit broader as to regulatory policy. The courses I taught, for example, seminars I taught, one was economic analysis of energy markets, which was a very broad course. And the other one -- the other one was economics of regulation, which was an economics course, of which cost of capital of

course is a major component.
Shortly after getting my Ph.D. I worked in some telephone cases, and I decided then, a decision I never regretted, that I couldn't learn about telephones and gas and electric at the same time, and I literally decided --
Q. I felt the same thing.
A. -- I like gas and electric. And I sympathize with you having to deal with all of them. And I decided at a relatively young age that I was going to become an energy economist.
Q. What age was that?
A. It was probably about 28. And so --
Q. Late. Okay.
A. So then I specialized. So I specialize in electric and gas industry primarily.
Q. Okay. So you do electric --
A. I do get involved in some oil issues, because of that, but I'm primarily --
Q. Electricity and gas?
A. -- working with electricity and gas.
Q. All things being equal in a case -- and this is kind of a different question, but do you believe that a return on equity component starts off at the same place for varying utilities such as gas, electric, water,

all if you had comparable companies? Is that even a fair question?
A. I'm not sure -- I may not quite understand the question. But I think analytically you could start at the same place. But I mean, I actually did some water and sewer cases at one time. That was before I decided I didn't want to do that, and I would say there's a great deal of difference in that and what we do here.
Q. Would you say that one is more risky than the other?
A. Well, interestingly enough, I don't know if the world has changed, but my impression of water and gas is they were a lot le-- of water and sewer is they are a lot less risky, because I observed the companies recovering their capital investment in their connection fees. And so I literally saw companies that had no common stock equity left anymore, because they'd recovered it all with hookups.
Q. Okay.
A. And in that case I considered them very unrisky.
Q. How about between gas and electric?
A. You see, the issue you have there is, what's the rate base? You still have the plant service -- being serviced but the investment is already captured.

Q. You'd be amazed that that issue comes up all the time.
A. Well, I see it hasn't changed. I haven't been involved in that for years.
Q. Between gas and electric, would you say is one more riskier than the other?
A. I think in general probably not at this point. At one time I thought gas was more electric -- I tie it to the level of deregulation and what's happening in the industry, and I think I've seen that evolve.
Q. So the more deregulation, the more risk or the less deregulation?
A. My view, just watching this and being involved in it, is that as deregulation starts out and has stops and starts and things like California happen and so forth, unpredictable changes, even bad regulatory decisions --
Q. Can't imagine that that would ever happen.
A. Well, they're temporary, but those kind of events affect obviously the risk of the investment, and so sometimes it can be smoother and sometimes it can be more troublesome.
Q. So is --
A. I think -- I'm sorry. I'm not trying to make a long answer, but I think they're convergent. I

think if -- my view is that -- that the view of many investors is that gas and electric are now more or less converging as to what the general risk of it would be.
Q. On your statement where it depends on the status of deregulation, something that is more deregulated then you say is more risky?
A. I think in the early stages, when it's unpredictable how this is all going to play out. That's why I think at one time the gas would have -- in my judgment was more risky than electric, as electric continues to be regulated doing things they have done previously, then as the gas has settled out, then I think we start deregulating electrics. The blip in California, if we can call it that, I think changed a lot of views about deregulation on the electric side.
Q. Okay. Could you give me a range of perhaps the -- a company that required the highest return on equity component to attract investors that you ever testified to?
A. Because of some market issues, I testified to 12.6 in South Carolina for Piedmont Natural Gas, and the Commission adopted it, and that was in 2002 or 2003.
Q. And what were the market conditions that required that ROE?
A. It had to do with their recovering their

gas costs were a little bit suspect, and they had some extension issues as I recall.

Q. That was an electric company?

A. No. That was a gas company. It was Piedmont Natural Gas.

Q. I'm sorry.

A. But I recommended 12.6 and the Commission adopted it.

Q. And what has been the lowest return on equity components?

A. When you say -- when you say the highest, I'm talking about in recent memory. There was a period of time when interest rates were 22 percent and the Commissions were awarding 13.5 or 14 percent.

Q. Sure, I understand.

A. And that's about what I was recommending.

Q. I understand. Recent memory is fine.

A. I'm talking about anything that's -- that approaches today's market.

Q. Got it. What is the lowest ROE component in recent memory that you've testified as an expert?

A. I'm not positive, but I believe it was a gas pipeline case in Louisiana, and it was 10.5 or 11, I believe.

Q. How about a distribution company, either

electric or gas?
A. Probably 11 percent. Might have been -- might have been lower than that. Probably 11.
Q. So even when interest rates were 22 percent and the ROEs were 13.5, they've come down to 2 and 3 percent and the ROE still stays up at 11 percent?
A. Well, that's a -- I actually published a paper about that one time briefly, because I got interested in how the rates could be so high and the allowed returns would be so low relative to that, like two-thirds of the level. And in looking at historical allowed returns versus the cost of capital, what I determined is that the allowed returns stay within this band, and the interest rates fluctuate around and through it.
And that's why I think the interest rate, the allowed returns we looked at for other jurisdictions around 11 percent or so when interest -- when we're hearing testimony that the DCF cost of capital is so much lower, I think what you're seeing is commissions don't go down to that level, because they're looking across the valley, if you will.
Q. Was your paper written when interest rates were high or when they were low?
A. It was written when they started coming

down. It was --
Q. When they started or when they --
A. They were still pretty high. It was kind of a reflection of how can this -- how can this be?
Q. Was your conclusion that interest rates perhaps don't play a very big role in the needs of a company in attracting capital --
A. Well --
Q. -- in their ROE?
A. I'm not sure. I was looking at allowed returns. I think it means the commissions are -- and this is not a derogatory statement, because I think it's probably the right kind of policy.
Q. We've heard that before, too.
A. I think commissions don't respond that quickly in general. What you do is you get a band of what the allowed returns are, but they move up and down at a slower rate than interest rates are likely to move.
Q. There's been some discussion today that the analysis that is performed, whether it be economic or financial -- I'm not sure if there is a difference. Forgive me. I'm a lawyer, so I've got to bear that problem. That this is a mathematical analysis to start off with, and then at the end of the analysis you perhaps use some judgment, some assessment of non-mathematical

principles. Is that a reflection of what you said earlier?
A. I think it is very much consistent with what I said earlier.
Q. So you were given facts, numbers, you were given numbers that you run through models and formula, and you come out with a proposals. And then you have to apply the real world circumstances to end up with a conclusion?
A. Look at interest rates, look at forecasts, look at competitive circumstances, risks, yes, sir.
Q. There was a risk that we've had recently where a company had an equity component in their capital structure that was very low, 30 percent, which would indicate perhaps that there was more risk associated with the company, therefore a higher ROE was suggested. Would you agree with that very basic analysis?
A. All things equal, that's very true, yes.
Q. Okay. In your analysis, do you -- in a circumstance like that, in your analysis, do you consider whether that capital structure would be a voluntary decision made by that company or whether it was an involuntary action or occurrence that just happened to that company? Does it matter to you in your analysis one way or the another?
A. As I understand the question, I don't think

so. I think it's -- I think you take the -- you have to play the hand you're dealt, and you start with what the capital structure is, not how it got there.
Q. Okay.
A. I mean, I -- there are policy questions I guess about what to do, but as far as the cost of capital, in my judgment, I don't think I can -- I don't think I can go beyond that.
Q. So your dollars and cents, if this is the -- if this is the risk associated with the company, regardless of reason, we need to be forward-looking in determining what the ROE should be?
A. As an analyst, that's my judgment, yes, sir.
Q. Okay. Does it matter to you whether or not rates wou-- rates would be increased based on perhaps bad decision-making on the part of the company in that circumstance?
A. I don't think that's within the boundaries of my analysis, because I'm -- I usually don't have that kind of information. I'm even trying to think of where there might be an exception that would have to do maybe with a financial decision or something that would be within what I think would be my analytical purview. But I don't -- I don't think so. I think I have to look at the

facts as they are and judge what the cost of capital is in those circumstances.

Q. So to you it doesn't make any difference, and if -- regardless of voluntary or involuntary action, if the numbers reflect a certain result regardless of the impact on the ratepayer, that is -- that is your decision?

A. Well, I'm conscious of the impact on the ratepayer, but I think I have to report what I think the cost of capital is.

Q. How do you assess the impact on the ratepayer in your analysis and in your testimony?

A. Well, I say I'm conscious of it. I don't think I try to interpret what the rate should be or how to -- I certainly wouldn't get into rate design. Now, as an economist, I do get into rate design questions because they have to do with pricing and -- but that's doing a different piece of this overall regulatory analysis. But in doing the cost of capital, I'm looking at a revenue requirement as opposed to how it's priced and who pays for it.

Q. There's been some testimony that I believe you gave earlier today where you added in some factors increasing the proposed allowed ROE due to lack of fuel adjustment clause --

A. Yes.

Q. -- in the state of Missouri.
A. Yes.
Q. And you agree with that?
A. Yes.
Q. Are there any other risk components where you added back in, non-mathematical principles or ideas that would cause in your opinion an increase in your proposed ROE?
A. I believe -- and I certainly can't speak to this in detail, but at least the issue of depreciation in Missouri, and the reason for that is that that seems to be in the financial press. The investment community, the knowledgeable investment community seems to be conscious of that and aware of it, and I cannot put a dimension on that, but that was a factor there that I -- that I recognized that applied to this company.
Q. Where did you get your information on depreciation being an issue in this state? Where did you get that information?
A. I think that's -- I think it's -- I believe it's in my testimony, but I think it was in a Standard & Poor's, and it may also be in a Moody's evaluation.
Q. And what was their gripe about depreciation?
A. I think it's just an issue with regard to

cash for Empire in -- in Missouri.
Q. Was it over service lives? Was it over --
A. Oh, exactly.
Q. -- the components of --
A. No, not -- my understanding -- my understanding is the issue that may be important is the service lives because of the cash. Exactly what was on their minds, I don't think -- I don't recall any details or specification about that.
Q. Are you able --
A. I was responding to the fact if the financial community is cognizant of this, then that's a risk factor. It's an operative risk factor.
Q. Is there -- can you quantify that risk associated with that depreciation?
A. No.
Q. For example, if our friends at Standard & Poor's were satisfied with depreciation in the State of Missouri, how would that change your ROE?
A. Well, as I said this morning, when I went through this thought process --
Q. I apologize for asking you again.
A. No. I'm just trying -- I'm trying to reconstruct the way I described it.
Q. Long morning.

A. I did not -- I cannot quantify it by so many basis points. What I'm trying to tell you my judgmental process as I best -- I recall it, which was last January. And that was because of these factors, such as fuel adjustment clause, depreciation, and other things I was considering, I was seriously considering a range recommendation of 11.5 to 12, and my judgment at that time for the 12 was probably that I thought interest rates were going up.

And I find it uncomfortable to be raising -- coming in 10 months later and saying, well, I should have given you a higher number because interest rates have gone up. It's much easier to say, well, they didn't go up, and I thought they were going to, so I would have had -- I think I would have had a band of 11.5 to 12.

Q. And what is your -- there is no band. What is your position now?

A. I took off the lower end of that band, is what I did.

Q. So you just said straight up 12?

A. I just said 12 percent, and the reason -- and the factors of these risk factors strongly were dominant in my mind at that time as to why I didn't want to go to the 11.5.

Q. Then would it be a fair statement that

50 basis points, that the depreciation and fuel adjustment clause only amount to 50 basis points?

A. I think that was my judgment. I mean, I can't quantify it. There's another factor that's important. If this company had been earning its allowed return, I would have also been willing to go down a little bit. So I'll -- I confess that there is a little bit of a cushion in recent performance because they've not even been able to make their allowed return for five years, and they do have a cash problem, and I hate to see them cut their dividend for all the reasons that I testified just to recover cash.

COMMISSIONER CLAYTON: I don't think I have any other questions. Thank you.

JUDGE THOMPSON: Thank you, Commissioner. Commissioner Davis?

QUESTIONS BY COMMISSIONER DAVIS:

Q. Let me ask you this, Dr. Murry. Keeping in mind your response to Commissioner Clayton of that, you know, say 50 basis points for the depreciation and fuel adjustment clause, what do you think would be the effect on Empire if we took the OPC's top number, what that is, 9 point something, and added 50 basis points, giving you an ROE of less than 10 probably?

A. Let's say it would get you close to

10 percent.
Q. Close to 10 but probably a little bit less?
A. This borders on a hunch, I'm afraid, because I can't quantify that very well. I don't think that would be viewed -- if it's announced, I don't think that would be viewed favorably by the financial community based on what I've read of their views, and I think you'd find this company facing a cash limitation, and what they would do about that for capacity, I'm not sure. You'd have to ask them.
Q. What is Empire's credit rating right now?
A. Well, their debt is BBB with a -- and that's what I think is maybe important is with a negative watch on it, and I think that has a lot to do with this proceeding and maybe the one in Arkansas, but primarily this one. ValueLine says this is good time to stay on the sidelines, and I think they're referring -- so I think -- I think what we're doing here today is in the -- on the minds of many people following this company.
Q. So let me ask you this: I believe you testified earlier that -- and you're going to have to forgive me because I'm probably not going to phrase this in the manner that you phrased it in, but Empire is going to need capital here in the near future, correct?
A. Yes, as I understand it. That's my

understanding, yes, sir.
Q. And will a low ROE determination by this Commission have a positive or negative effect on their ability to go out in the market and obtain capital?
A. It will have a negative effect in my judgment without a doubt.
Q. And why is that?
A. Because I think -- I think if the return doesn't end up with -- within bounds of what's expected, if it's an announced return, and I guess it will have to be announced since there's a hearing, I think it will send a signal both to the potential investors and to the financial community on common stock. I think it will also send a signal to the bond raters and the people who are looking at the debt instruments as well. And I think it is -- would have a negative effect on their trying to -- trying to raise capital.
I think it would -- the irony is when you're -- I think it's an irony -- when you're a BBB rating, which they are, with the negative watch, which means it could fall below investment grade, there's not a lot of elbow room left. And what I started to say is, what the irony is, the cheapest cost of capital for this company, and there's been some empirical work on this -- not just this company, but any company -- is probably

about an A bond rating or at least AA.

You don't have to go to AAA because if you go to AAA you're probably getting your bond costs down so low, but you probably have to have a lot of common stock equity in order to get up to AAA that you're raising the total cost of capital. So if you want to balance the amount of common stock and the debt at the lowest cost, it's probably going to be in the middle bounds of A and AA. But when you're down in BBB, you're going to raise your cost of debt and you're going to hurt your common stock.

Q. Let me ask you this: I mean, in terms of basis points, in your opinion, what's the difference between BBB with a negative watch and an A grading?

A. I think the best way to look at that would be look at the coverages result, and I -- as I recall, about 50 basis points would raise their after tax coverage, my recollection is about -- about .4, .5, and I think that that -- I think any less than 50 basis points would not even be recognized. So I think you need 50 basis points to start making a difference in the interest coverage.

For example, this company if you treat their trust preferred as debt, then their after tax coverage is only 2.6, and that's even with a common stock equity nearly 50 percent. That is a relatively low number and that's not going to be buy any accolades. It's skating by.

And you add -- if you get it up around 3, then you're up in the middle range of -- not even the middle range, but you're up into the middle of current electric utilities. And I think to do that you have to add another 50 basis points.

Q. Okay. Back to your lively cross-examination with Mr. Krueger many hours ago, I believe there was a question asked and it was stricken from the record. Is 2004 going to be a low earnings year in your opinion, and if so, why?

A. The financial analysts' recommendation that I'm aware of is 90 cents to $1 for this company on a book value of roughly $15. So that's a little over 6 percent to 2004. And so the point I was trying to make when that was stricken from the record is that the Staff witness had called 2001 an anomalous year at about 4 percent. And my point is the last four years we've been having 4 percent and 6 percent in two of the four years, which are very -- both very low.

Q. Let me ask you this: Going back to the fact that Empire has over the past five years not been able to achieve its allowed return, can you describe some of the factors that have inhibited or prohibited Empire from being able to reach its allowed return?

A. I'm not the best person to ask about that. Company can respond to it much better than I can. I think the -- I think fuel costs have clearly been one of the problems, and I'm going by what I read and have talked to people in the company. Beyond that, I can't put my finger on it, I think that's more of a specific company question.

COMMISSIONER DAVIS: I guess there are -- correct me if I'm wrong, but -- well, let me ask the Judge a question here real quick. Was capital structure settled or not settled, capital structure?

JUDGE THOMPSON: No, it's not settled.

COMMISSIONER DAVIS: It's not settled.

BY COMMISSIONER DAVIS:

Q. Your direct -- your testimony, you gave testimony on capital structure, correct?

A. I adopted the capital structure the company had submitted in this case, and I evaluated it, compared the comparable companies, and I find it very reasonable from that standpoint.

Q. Okay. Now, I believe our Staff or the Office of the Public -- have you reviewed the testimony given by Staff and the OPC with regard to capital structure?

A. I have, but that has been -- I have not reviewed it the last couple days.
Q. Okay. Well, as I recall, there wasn't much of a difference, approximately 2/10 of 1 percent.
A. It's very close, and that's why I didn't review it for this case.
Q. Right. Can you --
A. One of the issues that I know is regulated versus total company, whether it's just the regulated piece, and what about the non-regulated piece of capital. I know that's one of the issues, and it's very, very small.
Q. Right. Okay. So --
A. There's also a timing difference. I think OPC used a different time period, as I recall, capital structure at a different point in time, so that makes it matter too.
Q. Okay. All right. Let me ask you this: If you were looking -- okay. Let me switch. I'm sorry. I'm making my mental notes here.
When investors look at Empire's stock, and I guess there's two ways that the investors make money, through dividends slash yield, and through appreciation and the value of the stock; is that correct?
A. That's correct.

Q. And so if the stock -- you know, I assume that they're attempting to make somewhere between 8 and 10 percent with that being made up of a combination of those two factors, correct? I mean, is that --
A. As I understand it, yes.
Q. Okay. And with -- with the few peaks and valleys, I mean, would it be a fair statement to say that over the last five years Empire's -- the price of Empire's stock has not really increased by any amount? Is that fair to say?
A. I think it is. I'm not sure I can go back five years. Actually my testimony, I actually show what's done in the last year, and it's -- just after the last increase it got back to where it started the year. So it's bounced around 20, 22 for some time. I've got it lower than that, but it's back up to that.
Q. So if someone said that back in December of '99 that Empire stock price was in the $23 range, you'd have no reason to doubt that, would you?
A. No, I wouldn't. I mean, there was the period in which the Aquila merger was public --
Q. Right.
A. -- and stock was driven up because of that.
Q. So just saying if their stock price really hasn't appreciated much in, say, the last five years, then

they have to do it all off dividends, correct?
A. As far as the investor is concerned.
Q. Right. And if the dividend has obviously been a steady, what is it, 32 cent cash dividend per quarter; is that right?
A. Yes. Well, $1.28 a year, yes.
Q. So roughly 5 percent a year, I mean, assuming 20 to 22 --
A. Yes.
Q. -- $22 stock price, but that's all -- that's really all that's been returning for its shareholders, correct?
A. That's correct.
COMMISSIONER DAVIS: No further questions at this time.
JUDGE THOMPSON: Thank you, Commissioner Davis. Commissioner Appling?
QUESTIONS BY COMMISSIONER APPLING:
Q. Dr. Murry, I'm not sure if there's any more questions to ask you today that hasn't already been asked, but anyway, I'll take a shot at a couple. ValueLine gave Empire a future growth rate of 6 percent; is that correct?
A. At the time of my testimony they were 4/10 and 6 percent. It's now -- they've now raised it to 6.5.

Q. What is your number?
A. I used the -- see what I'm trying -- what I'm trying to determine is what investors are looking at, and so I looked at a number of different forecasts and methods, and because there was such a wide range of growth rate, I had a wide range of DCFs to reflect. Because of their circumstances, I recommended going to the high end. If you use the 6 percent growth rate on the high end, I've got 13.3 or 13.53, I believe, as a result, which I think is unnecessarily high.
And I also believe ValueLine is the most widely recognized source for growth rate. It's not so much what do I think, it's what do the investors really think. And I think there's even evidence that ValueLine is a very important source, and so that wasn't the only thing I looked at, but I think it was very important.
Q. Well, my real question was did you see 6 percent in a crystal ball for Empire? And I know that's difficult to claim, but I was just questioning whether they can pull a 6 percent?
A. Well, they can in one sense because their earnings base is so low currently. They've only earned 6 percent this year according to book value. Half of that 6 percent could be just coming back to where they ought to be, and then if they grow beyond that because of normal

growth and so forth, they could very easily get up to 6 percent or certainly 4.5, 5, in that range.

Q. Fuel adjustment clauses, I've heard you mention that a couple of times here this morning. What I am hearing is that it lends itself to increased cost to ratepayers over the longer haul in fuel adjustment clauses does. It's a lot of fluctuation, a lot of volatility on that one issue. Would you care to comment on that and what you see out there with utilities that have fuel adjustment clauses or the states that have fuel adjustment clauses? Is there a misuse of this?

A. No, I don't think so. I think it should be monitored. I think it should be -- I don't think it should be a place to recover funds that are not truly expended, and I think the company should be held accountable and responsible in its fuel purchases, but with -- with natural gas prices moving a dollar, you know, a trading session, you know, that's a lot of volatility. If the utility can't recover that, those sudden shifts, our stock -- if gas prices go to $9 and the company can't recover, that's a big risk to the common stockholder because of the cost of that.

And Missouri, Vermont and Utah are the only three states that do not have a fuel adjustment clause. It's commonly accepted in the utility industry. That's not -- that's not a risk that stockholders absorb, and so when the states don't allow recovery of fuel cost, that singles those companies out for scrutiny on the part of the investment community.

Q. The states that have fuel adjustment clauses, are you seeing a -- the same number or less or more of rate cases being filed?

A. That's a very good and interesting question, and I can't say that -- I can't say that that's the case, but I would think that if you had a fuel adjustment clause or a company that had a fuel adjustment clause, they're likely to stay out longer. That's at least one major factor, because they're flowing those costs through to ratepayers.

COMMISSIONER APPLING: Thanks, Doctor.

JUDGE THOMPSON: Thank you, Commissioner Appling. It's time -- I was going to say, it's time for another break for the reporter, and then we'll come back. Perhaps Chairman Gaw will have some questions then. If not, then we'll take up recross, so we'll be in recess for 10 minutes.

(A BREAK WAS TAKEN.)

JUDGE THOMPSON: Chairman Gaw, did you have any questions?

CHAIRMAN GAW: Maybe a couple. Thank you, Judge.

QUESTIONS BY CHAIRMAN GAW:

Q. Good afternoon, sir. I don't want to belabor this, because I know you've got a plane to catch, I think, if I heard correctly earlier.

A. Thank you.

Q. But you said something there at the end in regard to when -- on fuel adjustment clauses and whether or not they might cause the company to come in more often or not depending on whether they had access to them.

A. Yes.

Q. If I understood you correctly, you said that states that did not have a fuel adjustment clause, you would expect that companies would come in more often?

A. I was asked if I knew, and I said no, I didn't, but I could see that if there was -- if there was a fuel adjustment clause, it would be one reason the companies would stay out. They wouldn't need to come in.

Q. I suppose it could work the other way, couldn't it, as well?

A. I'm not sure I follow.

Q. In other words, if the company didn't have a fuel adjustment clause and they're actually beating their margins on a fuel cost --

A. Oh, yes.

Q. -- it might actually cause them to stay out longer?
A. Yes.
Q. Instead of come in more often?
A. Yes. That would be -- I guess if you're beating -- if there is a margin. Often fuel adjustment clause is not a just mar-- there's not a margin. It just flows through automatically. But if there were a margin and they were beating the margin, I guess they would stay out.
Q. In fact, companies that don't have fuel adjustment clauses have a built-in incentive to do as well as possible on their energy costs, do they not?
A. Well, I --
Q. Financially they have an incentive to beat the margin, do they not?
A. As far as the -- as having cash available or not having cash, that would be true. I mean, I think it would all round out at the end, I think.
Q. Do you know, are you familiar with Kansas City Power & Light?
A. I'm not.
Q. Have you heard of them?
A. Of course.
Q. Have you heard of AmerenUE?

A. Sure.

Q. Do you know how long -- if you do, how long it's been since either one of those companies have come in to the Missouri Commission and requested a rate increase?

A. I don't -- I don't know specifically. I can tell you what my recollection is, and it may very well be wrong. I thought -- I thought Ameren had a case about three years ago, and I have a feeling, last time I looked, their earnings were really pretty strong. They're a high rated company.

Q. Do you know whether that might have been a complaint case --

A. No.

Q. -- for overearnings?

A. No, I don't have recollection about that.

Q. And if I tell you that -- that their earnings were reduced as a result -- or their rates were reduced as a result of this case, would that give you an indication?

A. No, I don't recall, so I can obviously accept that.

Q. That's fine. If I look at a fuel adjustment clause in regard to its function, and I'm looking at fairly volatile gas prices in today's environment?

A. Yes, sir.
Q. I mean, that would be correct?
A. Absolutely.
Q. The greater percentage of fuel mix that is gas for a company generating electricity, the more it would be impacted by volatility in gas. That would be correct, wouldn't it?
A. Well, all things equal, certainly, and plus coal contracts are more likely to be longer-term contracts that are more fixed. So if it's -- if it's gas versus coal, that just the contracting alone would make gas more volatile.
Q. If I have a company that's heavily dependent on gas, moving forward into -- into the future, would you have any opinion about whether or not that was a good thing for that company if they didn't have a fuel adjustment clause?
A. If they had a lot of gas and did not have a fuel adjustment clause? There's obviously a price risk exposure because of that, if I follow.
Q. Would you say that coal is more stable in price than natural gas is today?
A. Well, I've looked at that over the years and found it can vary. The thing about coal seems to be both the type of coal and the vulnerability and price

variability often is in the transportation. It's the -- it's the railroad rates and other factors that can make coal prices be very volatile.
But in theory you tend to think coal should be more -- it's coming from a particular mine to a particular plant under a long-term contract. It shouldn't fluctuate as much. And I'm simply saying there -- for lack of a better word I'll use hiccups -- there are circumstances where that changes.
Q. And today would you say that -- moving forward that the prospects for volatility are more in the gas or coal, if you know?
A. Well, I work in this area, and I'd say that's a conventional wisdom, and I agree with it for at least the near term.
Q. If we were to put into effect some sort of a fuel adjustment clause or interim energy charge, what would be -- what would we -- would there be any incentive there to move a company that was heavily dependent on gas into -- into a fuel mix that was less dependent upon gas?
A. Would putting in the charge change the incentive for the company?
Q. Would there be an incentive if there were a charge, a fuel adjustment charge or interim charge?
A. I guess my experience has been that

companies, if for no other reason -- and I guess maybe I shouldn't speculate on the reason because I don't know, but I would think there's a -- there is a competitive reason. My experience has been companies try to manage their fuel to get a low cost fuel mix and to manage the purchasing prudently.

I have a -- I have had occasion to see companies do some things that I thought were rather unwise in some of their hedging programs, lack of experience and the like, but in general I'd say their objectives are ones that I consider appropriate and in everybody's interest.

Q. Did you answer my question about whether there's an incentive for them to move away from gas if their gas mix is very high in their fuel portfolio with a fuel adjustment clause or an interim energy charge?

A. I guess I can't identify a specific incentive, unless one were built into it. I can't identify one.

Q. That's fine. Let me ask a different -- do you -- have you ever testified in regard to appropriate fuel mixes for companies in the electric generation business?

A. I don't think I've ever testified. I've actually worked on consulting assignments that have had those kind of questions.

Q. You have?
A. Oh, yes.
Q. Is there a -- is there some sort of a sense out there among experts about appropriate fuel mixes?
A. Let me tell you, I'm not trying to evade the question. I'm trying to answer most directly.
Q. No, I'm not really trying to go very far with this unless you have some information.
A. My experience as an economist is that usually those decisions are made by engineers. I sometimes don't agree with them.
Q. Yes.
A. But they're looking -- they're trying to optimize the plant mix. Gas is more flexible if -- in a plant say than coal. Coal is obviously base load. You either run it or you don't. Depending on the type of gas unit, whether it's combustion turbine or combined cycle, you have different kinds of flexibility. Some you can run them one way and the other.
And so the engineers tune their system to meet their loads and their load forecast. We economists come in to deal with the pricing almost after they've designed what it should look like, how did it get the cheap fuel.
Q. Yes. Yes.

A. And it's very early to get brought in -- it's unusual to get brought in early in that question, in my experience.
Q. All right. So did you want to answer my earlier question, or do you think you better stay away from it?
A. Well, I think -- you're talking about the incentive question?
Q. No. You answered that one, I think. About whether or not there's an appropriate -- or range of fuel mix that's appropriate?
A. Sorry. I thought I was answering. I probably didn't make it specific. The point is, if you take a coal plant that you project is going to be cheaper with higher financial costs and lower operating costs -- and this is where as an economist I might get involved -- and if you get natural gas with a lower capital cost and a higher operating cost, then you start fitting those units as the engineers would do under the load duration curve. And so they essentially are optimizing their plant mix, and when they optimize their plant mix by definition they're optimizing the fuel that runs through those plants.
Q. So when they're optimizing their plant mix, are you talking about plants that are in existence or are

you talking about in planning for future construction or purchases?
A. Taking what they -- what they -- taking what they have and looking at the gaps in their load duration code --
Q. All right.
A. -- and what they need to do to fit in to fill that. So it's a combination of where they are now versus where they need to go.
Q. So it would depend upon each utility's particular load, right?
A. I've worked with engineers at the university level, I've worked with engineers in the field, and I know how they do this. I mean, I could at least follow what they're doing and that's how I interpret their actions.
Q. You haven't done that for Empire, though?
A. Oh, no. No, I haven't worked on the problem.
Q. Earlier there was a lot of discussion about the dividends that are paid out by Empire. If I understood it correctly, the dividends have been basically flat and not -- not changing much historically?
A. Have not changed at all for I think 11 years.

Q. Is that unusual for a company to do that?
A. I think it's safe to answer that yes.
Q. If a -- if a dividend is -- is it more normal for dividends to have some relation to earnings of a company?
A. I think in a previous arena, my experience has been that there was almost a constant growth and it more likely would be in cents as opposed to a percent, but there would be an expected dividend announcement. It's always the same quarter. It's what you'd expect the board to do, so that there would be a standard or a uniform expectation what they're going to do. They do this over a long period of time.
And then the earnings would fluctuate on top of that, so their dividends would -- payout ratio might be fluctuating because of earnings fluctuation, and it's -- I think it's unusual to see a company stay at a constant dividend rate for so long a period of time as Empire has.
Q. Companies often reduce or increase their dividends if their earnings turn out to be different than what's forecast, do they not?
A. I don't -- I wouldn't say that that's the case. That's an empirical question, but my experience answering -- trying to answer directly is that I think

companies -- utilities as opposed to other companies, utilities try to maintain their dividend because that's what their stockholders are putting a lot of weight in.

And I know I can't sit here and give you a specific example, but I know I've seen it, been with it, where companies have had bad earnings and they borrow money to maintain their dividend, knowing next year will be another year, better year.

Gas companies of course have a high -- high fluctuation in earnings simply because of weather more so than most electric companies do. And so I especially know gas companies that will maintain their dividends even when they have a bad year.

Q. Yes, but they expect it to come back the next year?

A. Exactly.

Q. If a company has consistently over a period of time not had that kind of a rebound the next year, for instance, would that change your analysis of that company in regard to what you just discussed?

A. Well, as I've indicated, I think in the case of Empire, and I'm not aware -- I'm not knowledge -- I do not have knowledge of what the board discussions are, but I don't -- obviously the company can't continue to pay out ratio over 100 percent for a long period of time.

They certainly can't do that and raise capital to expand, and so that's a -- the dividends are a draw on their cash.
Q. If you're looking at the average shareholder out there, investor, which I don't know if that's good phrase, but you seem to be trying to predict what an investor is doing on a regular basis here. How important are dividend payouts to investors in general?
A. In utilities, historically they've been very important in the nature of the people that buy and hold utility securities.
Q. What else would they be looking at? Give me a list of things that the investor's looking at. Dividends is one. What's the -- and give me the top -- top few things that you think are the most important things an investor's looking at with a utility company.
A. Well, I would say they're looking at earnings and dividends, looking at what's going to happen with their investment first. They probably are interested in the exposure the company would have to various kind of competitive pressures. There's some companies that are probably not well positioned to compete, maybe because of investment they made in plant and the like. They look at market growth, clearly utilities in rapidly growing areas with fixed rates.
It is the issue you're talking about a

while ago, regulatory lag can create an opportunity. If you can hold your costs down, you can have favorable returns for a period of time. And so a knowledgable investor will try to drill down into those issues and understand them.

Q. If I were looking at those things that you just discussed, would the dividend payout be the most important thing, second, third? Can you give me some perspective there?

A. I don't know. I will say the dividend payout seems to be in the minds of people writing in the financial press currently. They've recognized the last few years the payout ratio's been very high. It's a simple matter of arithmetic. It can't continue indefinitely, and so it's on people's attention.

Q. More important than earnings?

A. Well, I think most people at least -- and maybe interjecting my own view here. I think most people would raise the question of whether or not the earnings are going to support the dividends. And then if the answer to that is no, then the next question is, what's next?

Q. Would you say that there is more pressure on the -- the management and board of a company like Empire to maintain or increase dividends or to maintain or

increase earnings?
A. More pressure than in other companies?
Q. No. No. From shareholders as between those two things.
A. Oh. I don't -- I don't think I know for sure. I can give you a hypothesis that Empire is an area that has had some growth because of recreational areas in the past, but I don't -- I'm not aware that their growth is that high in those areas. I don't think that area of Oklahoma is growing very rapidly, and I know that area, and Arkansas.
But I would -- I would say that people are probably looking at that company not on the basis of growth as much as they would be looking on the basis of investment by the company. That's all supposition.
CHAIRMAN GAW: That's all I have. Thanks, Judge.
JUDGE THOMPSON: Thank you, Commissioner.
Any other questions from the Bench?
(No response.)
JUDGE THOMPSON: Very well. Recross based on questions from the Bench, Mr. Krueger?
MR. KRUEGER: Thank you, your Honor.
RECROSS-EXAMINATION BY MR. KRUEGER:
Q. Dr. Murry, I don't want you to miss your

plane, so I'll be as brief as I can. I have a couple of questions.
A. Thank you.
Q. You testified about Mr. Murray including in his list of comparables a company that was -- had bonds below investment grade?
A. Yes.
Q. Do you have any reason to believe that he did that intentionally?
A. No, I do not.
Q. And, in fact, he explained that in his surrebuttal testimony, did he not?
A. Well, he -- I don't recall his precise answer. He did address it in his surrebuttal.
Q. Okay. Thank you. Do you recall what ROE was authorized in the second previous Empire rate case?
A. No. I think I was asked that this morning, and I didn't recall then. But if I wasn't asked, I still don't recall.
Q. Okay. So -- and you don't recall the consequences of -- in the financial community of the effects of that rate order?
A. I do not at this moment.
Q. Okay. You were asked why Empire has been unable to earn its allowed return, and the one reason you

offered was fuel costs. Do you know -- have an opinion about whether actions taken by the company in contemplation of the Aquila merger have contributed to that as well?
A. Oh, back during that period? I'm sure it did, as I recall some of the circumstances around that. I think that would have been true at that time.
Q. Okay. Thank you. You were also asked questions about timeliness, and I think this is a rating that's given by ValueLine as far as the timeliness of investing in a stock. Am I correct to understand that generally the timeliness indicates that the stock is priced at a higher level than ValueLine thinks is good to invest in; is that right?
A. I think that would be one way to put it, but I think it's the general statement or general concept is circumstances do not make this a timely -- a time to invest in it.
Q. But certainly one of the factors in that is the price is too high, in ValueLine's judgment?
A. That would be another way of saying -- that would be another way to affect whether or not you should invest now?
MR. KRUEGER: May I approach, your Honor?
JUDGE THOMPSON: You may.

BY MR. KRUEGER:
Q. Showing you a document and ask you if you can identify that.
A. This is final order by the Oklahoma Corporation Commission July 28, 2003, on the Empire District Electric Company case, Order No. 478532.
Q. Is that the case that Commissioner Murray was asking you about?
A. I think it is, yes.
Q. And attached to that is a Joint Stipulation and Settlement Agreement, correct?
A. That seems to be correct.
Q. So does that refresh your recollection on whether that case was settled by -- was resolved by settlement?
A. Yes. As I said, I was trying to recall. I thought that the case had got under way or something had happened, and then it was settled. That was my recollection. This seems to be stipulation.
MR. KRUEGER: I would like to offer that Order as an exhibit, your Honor.
JUDGE THOMPSON: Well, let's get it marked. This will be Exhibit 121.
(EXHIBIT NO. 121 WAS MARKED FOR IDENTIFICATION BY THE REPORTER.)

JUDGE THOMPSON: This is an Order of the Oklahoma Corporation Commission. And did you want to offer that?

MR. KRUEGER: Yes, your Honor, I do.

JUDGE THOMPSON: Do I hear any objections to the receipt of Exhibit 121?

MR. SWEARENGEN: We have none.

JUDGE THOMPSON: Very well. Hearing no objections, the same is received and made a part of the record of this proceeding.

(EXHIBIT NO. 121 WAS RECEIVED INTO EVIDENCE.)

JUDGE THOMPSON: Mr. Coffman?

MR. COFFMAN: Thank you.

JUDGE THOMPSON: I assume you're done, Mr. Krueger?

MR. KRUEGER: I am. I'm just retrieving my notes, your Honor.

RECROSS-EXAMINATION BY MR. COFFMAN:

Q. Dr. Murry, you were asked a couple of questions about the fuel adjustment clause, and I thought I heard you say that only three states utilize the fuel adjustment or do not utilize the fuel adjustment clause. Would it be maybe a more accurate statement to say that three states have court cases or legal prohibitions

against the fuel adjustment clause?
A. I think that would be a more accurate statement, as I recall the provisions.
Q. And are you aware that certain states over the last 10 years have actually gotten rid of fuel adjustment clause statutes?
A. I'll accept that that's happened. There's no state in which I think that I've been working in other than Missouri in the last number of years that doesn't have one. I certainly can't give you an example.
Q. You were asked questions regarding what investment analysts might -- how they might react to an Order from this Commission. Are you aware of a recent A.G. Edwards report assuming that reasonable rate relief might be forthcoming in the range that would allow this company to earn a 9.5 return on common equity?
A. I don't think I've seen that.
Q. Did you review the direct testimony of Travis Allen?
A. Yes.
Q. The excerpt that he provides from a July 23, 2004 A.G. Edwards report?
A. I don't recall it at the moment.
Q. Do you regularly review A.G. Edwards reports?

A. I do review A.G. Edwards reports. I don't review them regularly.
Q. One other question just for clarification. You were asked some questions by Commissioner Murray regarding one company on your schedule, comparable companies, which was listed as I guess MGE Energy?
A. Yes.
Q. I just wanted to clarify, that was not Missouri Gas Energy, the LDC --
A. No, that's correct.
Q. -- regulated in Missouri?
A. That's correct.
Q. Do you know what that company actually is? Would that be Madison Gas?
A. Madison Gas and Electric, yes.
MR. COFFMAN: Thank you. That's all.
JUDGE THOMPSON: Thank you, Mr. Coffman. Redirect?
MR. SWEARENGEN: Just a few cleanup, your Honor.
REDIRECT EXAMINATION BY MR. SWEARENGEN:
Q. Mr. Murry, I think it was this morning Mr. Krueger started his cross-examination and asked you a question something like this: The DCF measures investors' expectations, and I think you responded to that and gave

an answer. Do you remember that question?
A. I can remember --
Q. It was several hours ago?
A. -- back to that, yes.
Q. Let me ask you this: What's the purpose of this exercise in attempting to measure the investors' expectations for a regulatory proceeding such as we're in here?
A. To determine what investors would have to receive or expect in order to invest in common stock in Empire, and that creates a cost of capital for rates.
Q. Now, relating that to the DCF, the discounted cash flow analysis or model, if you performed a company-specific DCF analysis, in your view, would the result of that automatically reflect the expected or required rate of return?
A. I think I indicated -- tried to indicate that clearly that DCF model is a mathematical expression of the relationship between market price and expected returns, but that obviously will fluctuate depending on the prices that exist in the marketplace and what's going to happen to those expected returns.
Q. So would the result of that mechanical process always be what an investor must have in the way of a return in order to make an investment?

A. Not the mechanical calculation. That's simply a tool.
Q. Can the Commission in this case rely on a company-specific DCF analysis as the true cost of capital for Empire District?
A. In my judgment, it cannot exclusively.
Q. And why is that?
A. Because I think it's just a mechanical calculation. I think it's -- I think it's useful information, I think it's important information, and I think it can be used in making judgment as to what the allowed return should be, but it's not an answer in and of itself.
Q. I think in response to one of Mr. Krueger's questions you said that you looked to the DCF first in putting together your recommendation for Empire. Do you remember that?
A. I vaguely remember that.
Q. Where does your DCF approach differ from the Staff on the Office of Public Counsel? Can you summarize that?
A. Well, I think the major point of departure is that I'm looking primarily at analysts' forecasts for information in today's market that are likely to be available to investors and likely to influence their

judgment as to whether or not to invest. After all, that's what we're trying to determine is what investors would do. In some respects, although I think as I said, I thought his analysis was more mechanical, that's closer to what Mr. Murray did.
Mr. Allen used the so-called br+sv method which we talked about in calculating growth rate, and I think that deviates from really learning what the market, the growth expectations of investors are likely to be. I think that's just another formulistic calculation.
Q. Okay. At one point in response to a question from Mr. Krueger you said the DCF doesn't pick up all judgments. What did you mean by that statement?
A. Well, I mean it's a tool and it can be misleading because of other factors. Market prices can be influenced by many things, some of which are outside of the bounds of what we're looking for, either on the high side or low side, as far as -- as far as the cost of capital is concerned. One has to determine -- the growth rate's obviously an important factor. One has to try to determine what -- what are the relevant growth rates that investors would be looking at today to try to see what pattern of cost of capital they would -- they would expect.
Q. Are there any assumptions, underlying DCF

assumptions that may not exist in the case of Empire?

A. Well, I think there's some factors that might make the calculation of the DCF result less relevant for Empire than there would for others. One way to look at that is the very wide range of results that I got in my calculation, simply because of the wide range in growth rates and other factors and prices for Empire. That's not really the ordinary course for many companies today.

Q. You also had some questions from Mr. Krueger and others about your use of ValueLine. I think Mr. Coffman asked you about that, and I think you indicated that ValueLine is something an analyst will use or a potential investor in Empire stock will use; is that correct?

A. Yes.

Q. Then you made the statement a portion of the ValueLine growth rate estimate is trying to bring the company back into line. Do you recall that statement?

A. I don't remember exactly how I made the statement. I remember making a statement in reference to the -- just one reason the growth rate from this point forward might be realistically 6 percent, even though that's a high number seemingly, is that the base in earnings is low. It's well below the -- has been well below the 10 percent allowed return, and part of that growth rate adjusting back to what would be a normal expected return for a small electric utility company, and the 10 percent was allowed return. That may not even be adequate.

Q. Who are ValueLine's clients?

A. ValueLine clients are the mostly investment community, investors. As a service, it's one -- that's one reason I rely on it extensively and there's empirical work to support the fact that people do follow it. ValueLine's available in a lot of libraries, and so it's available to small investors, as well as professional investors. So it's a -- it's a -- the thing about ValueLine that's interesting is that it's a financial service, and they make their money by selling the service, not in selling somebody bonds, and then providing a report.

So we've had some news in recent months about conflicts of interest, investment bankers providing documents. ValueLine is separate from that. They are an independent financial organization providing information.

Q. And they're selling just a service?

A. They're selling information, the service.

If people didn't believe them, people wouldn't buy their service.

Q. That was going to be my question. Do they

have any agenda or policy or any particular axe to grind, as far as you know?
A. No. I know company managements I've talked to that said they can't get ValueLine to pay attention to them.
Q. Have you offered any testimony in this proceeding that would suggest that ValueLine is perhaps one of the best, if not the best sources to look to for growth rates?
A. Yes. I was actually asked that question on a -- at both of my depositions, and then it was followed with a DR, Data Request, concerning ValueLine and ValueLine's use. And I submitted that as a -- as one of the -- one of the schedules in my surrebuttal testimony.
Q. Is that Schedule DAM-3 to your surrebuttal testimony, do you recall?
A. Yes, that's the schedule.
Q. I think you were asked some questions also about Standard & Poor's and their revised guideline or guidelines for investment grade ratings. Do you recall those questions?
A. Yes.
Q. And I think you indicated that based on those revised guidelines, Empire would be at the bottom of the investment grade range. Is that your testimony?

A. Yes.
Q. Do you have any firsthand knowledge as to what Standard & Poor's will do with respect to Empire's future ratings?
A. Firsthand knowledge, I -- other than recognizing Standard & Poor's has put them on a negative watch.
Q. Have you had any contact with Standard & Poor's about what they might do with respect to Empire's ratings?
A. No, and I don't think they would say specifically what they would do.
Q. You're not a Standard & Poor's employee, are you?
A. No, certainly not.
Q. Just because Empire might be at the bottom of Standard & Poor's investment grade range at the present time, is that any guarantee that Standard & Poor's will keep them there in the future?
A. Oh, of course not. Not just the Standard & Poor's guidelines, but my calculation of interest coverage -- and I know it's getting late in the day and I hate to say something quite like this, but I sort of think the company's whistling by the graveyard. It's -- it's skirting very close, I think by anybody's judgment, of

falling below investment grade, and I think that's realistic. Hopefully it doesn't happen.
Q. In your view and without stepping on the toes of the Commission, in your judgment, should it be the goal of the regulator to see that a company is maintained at barely investment grade or should the regulator shoot for something higher than that?
A. As I said earlier, lower cost -- the lowest cost of capital for the company would probably be either an A or a AA rating, something even above BBB, and that's because the higher the bond rating, the lower the bond cost. And as I pointed out, you don't need to go to BBB, because that would mean probably thickening the equity ratio to the degree and you're raising the cost of capital.
But maintaining a low -- very low, marginally low bond rating and having that on the attention of the financial community probably affects both the cost of common stock as well as the cost of debt. I think it's not a very good policy.
Q. One last question. You were asked about AmerenUE and the fact that they have not been in for a rate increase before this Commission for some time, and I think there was some discussion that perhaps three years ago they were, in fact, the subject of a rate reduction.

Do you recall that question?
A. Yes, I do.
Q. If I told you that for years AmerenUE was authorized a return on equity by this Commission of 12.6 percent while other electric companies in this state were down in the 10s, could that explain why perhaps AmerenUE did not need rate relief during that period of time?
A. Yes. I don't remember it specifically, but I was involved in an earlier review of I guess some matters -- in that case that happened to be Laclede -- and I remember that there was a structure that created -- I thought it was a -- I thought they were bandwidths of return so that they could earn up to a fairly high number. 12.5 percent sounds about right.
MR. SWEARENGEN: Thank you. That's all I have.
JUDGE THOMPSON: Thank you. You may step down. You're excused, sir. Thank you for your testimony. Who's your next witness, Mr. Swearengen?
MR. SWEARENGEN: Mr. Vander Weide.
JUDGE THOMPSON: Mr. Vander Weide.
(Witness sworn.)
JUDGE THOMPSON: Do you understand that if you were to give false testimony in this proceeding you

could be prosecuted for the crime of perjury?
THE WITNESS: Yes, I do.
JUDGE THOMPSON: Please take your seat.
State your name for the reporter and spell your last name if you would, sir.
THE WITNESS: Yes. My name is James H. Vander Weide, and my last name is spelled -- is two words and it's spelled capital V-a-n-d-e-r, space, capital W-e-i-d-e.
JUDGE THOMPSON: Thank you very much, sir.
You may inquire, Mr. Swearengen.
JAMES H. VANDER WEIDE testified as follows:
DIRECT EXAMINATION BY MR. SWEARENGEN:
Q. Would you state your name again for the record, please.
A. Yes. My name is James H. Vander Weide.
Q. By whom are you employed and what is your capacity with your employer?
A. I'm employed by Duke University as a research professor of finance and economics.
Q. Let me ask you this in connection with this proceeding before the Missouri Public Service Commission, have you caused to be prepared certain direct, rebuttal and surrebuttal testimony on the cost of capital issue in question and answer form?

A. Yes, I have.
Q. And do you have copies of that testimony with you this afternoon on the witness stand?
A. Yes, I do.
Q. For the record, I believe your direct testimony has been marked Exhibit No. 14, your rebuttal testimony as Exhibit No. 15, and your surrebuttal testimony Exhibit 16. Are there any changes or corrections that you need to make with respect to your direct testimony?
A. Yes. I have a couple of minor typos.
Q. If you could refer us perhaps to the page and the line.
A. Yes. On page 13, line 21, the line begins, payments established by contract. That should be payments are established by contract. So the word "are" should be inserted between payments and established. On page 17, line 15, the line begins, such as Empire with a business position. Instead of is, that should be of 5. So it should be, with a business position of 5.
On page 19, line 10, at the end of the line there are bond ratings in the range BBB plus to.
It says A-1 that should be A-plus. And then on page 34, line 15, the line begins 9.7 percent, it should be 9.4 percent.

And those are all the corrections in my
direct testimony.
Q. What about your rebuttal testimony,
Dr. Vander Weide, are there any changes that you need to make with respect to that testimony?
A. In my rebuttal testimony, I have found only
one minor typo. On page 9, line 11, in the middle of the line, there's a sentence that begins since many of, and there should be inserted the article the companies. Since many of the companies.
Q. Thank you.
A. That would be it for the rebuttal
testimony.
Q. Are there any changes that you need to make
at this time with respect to your surrebuttal testimony?
A. I have only two minor typos in my
surrebuttal testimony. On page 8, line 1, it reads face or rising energy prices. That should be face of rising energy prices. And on page 23, line 19, the line begins, typically trades at market values that are relatively close to, and the next word should be book values, rather than market values. And that's all that I have.
Q. Thank you. And with those changes, Doctor,
if I asked you the questions contained in your direct, rebuttal and surrebuttal testimony, would your answers be

substantially the same this afternoon?
A. Yes, they would.
Q. And would those answers be true and correct to the best of your knowledge, information and belief?
A. Yes, they would.
MR. SWEARENGEN: With that, your Honor, I would offer into evidence Exhibits 14, 15 and 16 and tender the witness for cross-examination. Thank you.
JUDGE THOMPSON: Thank you, Mr. Swearengen. Any objections to the receipt of Exhibits 14, 15 or 16?
MR. KRUEGER: No, your Honor.
JUDGE THOMPSON: Very well. The same are received as corrected and made a part of the record of this proceeding.
(EXHIBIT NOS. 14, 15 AND 16 WERE RECEIVED INTO EVIDENCE.)
JUDGE THOMPSON: Cross-examination, Mr. Krueger?
MR. KRUEGER: Thank you, your Honor.
CROSS-EXAMINATION BY MR. KRUEGER:
Q. Good afternoon, Dr. Vander Weide.
A. Good afternoon, Mr. Krueger.
Q. I just today received the errata sheet on your deposition. I haven't had time to go through that

yet. May I inquire whether there's anything in there that you think would be significant or are they just typographical errors of the type that you just described for your testimony?
A. There were several sentences that didn't make sense. There must have been some words left out in the middle of the sentence, and so I corrected it to the -- to the sense that I intended it to be. So you would have to look at those in particular. Most of them were more of the typo variety, but there were several where there obviously a -- something was skipped in the middle of the sentence.
Q. Okay. But so far as you know, something that would change my impression of the substance of your testimony?
A. That's correct.
Q. Okay. I believe the Commission would appreciate and I know I'd appreciate it if you can keep your answers short so that we can move this proceeding along, without sacrificing accuracy in answering the question as necessary.
For how many years have you testified on cost of capital issues?
A. For approximately 30 years.
Q. Do you know about how many cases you've

testified in?
A. Approximately 360.
Q. Mostly on behalf of the company?
A. Yes.
Q. All on behalf of the company?
A. There are some cases where they were not all utility cases. Some of them were valuation cases. Some of them involved other issues. So when we say the company, it's not as clear what that means. In the utility cases, it was on behalf of the company.
Q. Thank you. You use pretty much the same methodology in all these cases?
A. Yes.
Q. Basically, that methodology is first determine the cost of capital for a group of proxy companies using the discounted cash flow method as the first step?
A. I don't know if one would say using the discounted cash flow is the first step. I have frequently used several methods of estimating the cost of equity, and there is no first step or second step. I may describe the discounted cash flow first, but that doesn't necessarily mean that was the first step. All the methods received equal weight and were done without particular order in terms of steps.

Q. Okay. I'm not referring to the sequence in which you do them, but that is one of the steps?
A. That's one of the steps, not the first step.
Q. Okay. You also determine the cost of capital for a group of proxy companies using the ex ante risk premium methods.
A. Yes.
Q. And then you determine the cost of capital for a group of proxy companies using the ex post premium method?
A. Yes.
Q. And then you average the results of those; is that correct?
A. Not in all cases. Generally I do. If I believe that each of them -- that we're in a situation where the assumptions of each of the models holds reasonably well, if -- I always evaluate and am very much aware that the models are based on assumptions, and I try to determine whether those assumptions are reasonable in light of current conditions. If they are not, I would either eliminate the method or give less weight to it.
Q. Okay. And in this case, you did just use a strict mathematical average, but you don't always do that?
A. Yes.

Q. Okay. Now, in this case you also made an adjustment based upon the weighted average cost of capital of the subject company, Empire District Electric?
A. Yes.
Q. This last step is a new wrinkle in your procedure, is it not?
A. Yes.
Q. And you've only begun to do that this year, correct?
A. For electric and gas companies, that's correct. I've done it for telecommunications companies since 1996, because market value is a bigger component for them than it is for electric and gas, the difference between market value and book value.
Q. But until this year, for gas and electric companies, you followed the basic procedure that you followed in this case, just without the weighted average cost of capital adjustment?
A. Yes.
Q. Okay. Now, in this case you recommend that Empire be allowed a rate of return on equity equal to 11.3 percent?
A. Yes.
Q. Is that what you believe Empire's cost of equity is?

A. Yes.
Q. So if Empire was allowed an ROE of 12 percent, that would exceed the cost of equity?
A. That -- one never can estimate the cost of equity as a single number. There is always a range. The 11.3 is in the middle of a reasonable range of costs of equity, and it comes out as the average, but that -- that doesn't mean that that's the only number. But it -- in my opinion it's the best estimate of the cost of equity.
Q. You didn't recommend a range, though, in this case, did you? My recollection is you just said 11.3 percent.
A. I recommended a single number, yes.
Q. Okay. In your testimony you cited the U.S. Supreme Court's decision in the Bluefield case on page 11 of your direct testimony.
A. Yes.
Q. And you included a quote from the opinion in that case. Do you believe that quote establishes a standard that you seek to meet when you estimate costs of capital?
A. Let me review the statement. Generally, I would say yes, but let me just review the statement. Yes, it is.
Q. Okay. I'm not going to read all the words,

but it does say a public utility is entitled to such rates as will permit it to earn a return equal to that generally being made at the same time?
A. Yes.
Q. Okay. That doesn't say return that investors expect?
A. Well, it has been interpreted over time as investors expect. And that the utility would be allowed to earn a return that is equal to the return that investors expect, is the way it's been interpreted.
Q. Even though it says generally being made?
A. This case was written in 1923, and it -- its interpretation, my understanding, not -- I'm not an attorney, but I have not been around since 1923 testifying. I've only been testifying since the mid 1970s, and in my lifetime, it has always been interpreted to start with investor expectations and then to move to an allowed rate of return that would equal investor expectations. And that has been universally accepted as the interpretation of both the Bluefield and the Hope cases, in my experience.
Q. So I understand then that you didn't undertake to determine the returns generally being made, but rather the returns expected?
A. Yes. Again, it may have been in the 1920s

to 1930s that witnesses or experts looked to the returns being made, but it became very apparent from the emergence of the field of finance that return -- that returns have to be made in the marketplace, and they have to be returns that are generated from capital markets and investor expectations. And so the beginning point has been investor expectations and then to allowed rates of return.
Q. And you believe your recommendations are consistent with Hope and Bluefield?
A. Yes.
Q. Are you familiar with decisions that this Commission has made in the past on the issue of a company's return on equity?
A. I'm not familiar with all of the decisions. I'm familiar with some decisions.
Q. Are you familiar with the methods of analysis that the Commission has relied on in estimating cost of equity?
A. I would not characterize it as a universal familiarity.
Q. Are you able to form an opinion about whether the Commission has historically placed great emphasis on the DCF method of analyzing cost of capital?
A. That's the -- it's been represented, and I have no reason to doubt that.

Q. And, in fact, stated that this is the preferred method of doing so?
A. That is certainly what Mr. Murray and Mr. Allen have suggested. I have no evidence one way or the other whether that is correct.
Q. To your knowledge, has the Commission ever placed primary emphasis upon the method that you've utilized in this case?
A. I didn't seek -- I don't know, and I didn't seek to determine whether the Commission did that. I have looked to my experience in -- in what I believe is the correct way to estimate the cost of equity and what commissions have done throughout the country, and my methods are certainly not only correct and consistent with financial theory, but they are widely used in the investment community and indeed in the regulatory community.
Q. But you don't know that the Commission has ever applied the DCF to a proxy group of companies rather than a company-specific DCF?
A. I'm having a difficult time interpreting the question in the sense that I don't think the Commission itself applies the DCF. I think the Commission accepts someone else's analysis, and I don't know whether they have ever accepted an analysis of a witness who

applied another approach.

I don't think they have always accepted the results of the Staff's recommendation, even if the -- whatever approach the Staff used, but I'm not familiar with whether they accepted someone's recommendation that applied several other approaches.

Q. Do you believe it's inappropriate to utilize the company-specific method of analyzing -- company-specific DCF method of analyzing cost of capital?

A. I believe that, as I state in my surrebuttal testimony, there are strong reasons to believe that applying the DCF model to Empire and relying entirely on that at this time would be a grave error. And the reason is that, first of all, Empire doesn't obey the assumptions of the DCF model. The DCF model requires that a company operate in a stable environment where its earnings are reasonably stable, where it's -- where the company's earning its cost of capital and can be expected to earn its cost of capital in the future.

Empire's not in that environment. They're currently not earning their cost of capital. They're paying out a high percentage of their earnings as dividends. In that environment, it's very difficult to estimate the growth component.

Secondly, analysts throughout the country and in the financial community apply the DCF and other cost of equity models to a reasonably large group of proxy companies in order to reduce the inevitable uncertainty associated with applying any cost of equity model to a single company.

It's universal in my experience across the regulatory community and in the financial community to use a reasonably large sample of companies to reduce the uncertainties and the distortions that can arise in applying a cost of equity model to a single company, and indeed, I think there's a certain amount of circularity that's involved because in order to apply the DCF model. You have to look to investor expectations.

Investor expectations for the company whose rates are being set depend on the results of the regulatory process, and so you have a situation where investors are looking to the results of the regulatory process and the regulators are looking to the expectations of investors, and you don't know where to begin. There's an inevitable circularity involved.

Q. My und--

A. So the answer is no, I don't believe in applying the DCF model to a single company.

Q. Not in relying solely upon the DCF model?

A. Not in relying solely, and indeed, one

ought to in my opinion rely on a broad group of companies.
Q. Did you review the direct testimony of Dr. Donald Murry in this case?
A. Yes, I did. Well, before I say that so glibly, let me step back. I saw his testimony. I did not review it before it was filed, nor did I converse with Mr. Murry regarding his testimony before it was filed.
Q. That wasn't my question.
A. I just was clarifying my answer.
Q. Okay. Would you agree that he used a company-specific DCF analysis as his primary tool?
A. I don't know if that was his primary tool or not. I believe you would have to ask him.
Q. Okay.
A. I think I heard him answer today that that was not his primary tool, but I think he would be the person to clarify that.
Q. I did ask him various questions on that subject.
Has the Missouri Commission ever accepted the ex ante risk premium method of estimating the cost for the company as a primary tool for evaluation?
A. I don't know.
Q. Has the Missouri Commission ever accepted ex post risk premium method of estimating the cost of

common equity as its primary tool of estimating cost of equity?

A. I don't know.

Q. Now, in regard to the DCF method, your DCF analyses, when determining G, are you trying to determine what the investors expect the growth in EPS will be?

A. I agree with the first part of your question that I'm trying to determine investors' expectations. In the context of DCF model, although I think it's best to look to EPS as a guide to investor expectations, the expectations really relate not only to EPS, but to DPS and book value and to stock prices as well, because in the DCF model all of those components are assumed to grow at the same rate.

Q. In your analysis in this case, did you look to any of those measures other than EPS?

A. No, because I have performed extensive studies that indicate that investors' expectations for all of those components are formed primarily by the analyst growth forecast, and analyst growth forecasts relate primarily to earnings.

Q. And you rely on analyst estimates of this to plug into your equation; is that correct?

A. Yes.

Q. How do you know which analyst estimates to use, or how do you decide?

A. I have looked primarily to consensus analyst growth forecast. When I say consensus, I mean growth forecasts prepared by a group of analysts that are aggregated together by a service such as IBES, who then report an average of those -- of those analyst forecasts.

Q. And is that what you used in this case, IBES?

A. In this case, for my proxy companies, I used IBES. In my rebuttal testimony, I also talked about the application of the DCF model to Empire. And for Empire there's only a -- one forecast available in the IBES survey. Sometimes there are two, but at present there are on-- there's only one. And I don't believe that it provides reliable estimates to look to only a single analyst.

But I did then supplement the IBES growth forecast by looking to ValueLine and looking to Standard & Poor's and averaging those three forecasts, and that gave me a growth forecast of 4 percent, which translated into a DCF result for Empire of 10.9 percent.

Q. You said there was only one analyst available for Empire?

A. From in the IBES survey, that is correct.

And Thompson Financial has come up several times in the testimony and in the discussion this morning. Thompson Financial and IBES are one and the same thing at this time, and there's only one analyst that is included in the long-run growth forecast for both Thompson Financial slash IBES, and there's only one available for Standard & Poor's as well at this time.

Q. Do you know who that analyst is for IBES?

A. No, I do not.

Q. Do you regard IBES' estimates as superior to ValueLine?

A. For -- in general, when there are numerous analyst forecasts available from IBES, yes, I do. If there's only a -- one or two analysts available, then I believe that they should be given equal weight, as I did in my rebuttal testimony, and so I there gave equal weight to ValueLine and to IBES and to Standard & Poor's.

Q. ValueLine, IBES and Standard & Poor's, so you had three of them, then?

A. Yes. And the average for those three was 4 percent.

Q. You say that it's useful to test -- to examine the cost of equity for a group of companies in a closely associated industry to test the reasonableness of the electric results. Do you recall saying that? I believe it was at page 31 of your direct testimony.

A. Yes, I do recall saying that, and when I use the words "closely associated," I meant an industry of companies that would have comparable risk.
Q. And in this case, you used LDCs?
A. Yes.
Q. Is that a closely associated industry? But you didn't use it only to test the reasonableness, you also used it as an input into your determination.
A. Yes, the LDCs I -- not only did I hypothesize that they had comparable risk, but I demonstrated that they had comparable risk by looking at the risk measures associated with the LDCs. In fact, the LDCs, if anything, according to bond ratings and ValueLine safety ranks and financial strength and other measures had safer ratings than did Empire, and so it was -- I felt very safe in using the LDCs because there was very substantial evidence that they were comparable in risk, conservatively comparable in risk.
Q. Now, you analyzed 27 electric companies?
A. I believe that's correct.
Q. And 12 gas companies?
A. Yes.
Q. And then you just took the average for the 27 electric companies and average for the 12 gas companies and averaged those two figures, correct?

A. As -- as an indicator because I had no reason to believe that any one of them was more important than another.
Q. Of those 27 electric companies, actually 22 of them had ROE results below 10 percent; isn't that correct?
A. I didn't count how many did. The average as I think I established was 9.4. So I would assume that the majority were below 10 percent.
Q. I'm looking at Schedule JVW-1 attached to your direct testimony, and cost of equity there is in the right-hand column, and the ones with more than 10 percent return kind of jump out because there's an extra digit in those. And it looks to me like there's five that exceeded 10 percent.
A. Yes, there does.
Q. And the average that you derive for that was 9.4 percent?
A. Yes.
Q. And that was a market weighted average, so it gives a lot more weight to somebody like Duke Energy than to somebody else; is that so?
A. It was a market weighted average, yes. It gives greater weight to those with a higher market value, as it should. In finance you use the market value.

Averages is widely accepted.

Q. Do you think Duke is comparable to Empire?

A. I've given the -- first of all, let me say that it's not necessary that every company be comparable to Empire. When I look at the average of results, it's only necessary that the average company be comparable to Empire. But in addition, for this entire group, I looked at their S&P bond ratings, their S&P business profiles, and I looked at their ValueLine safety ranks. And for that group as a whole, if anything, they were very close to Empire in terms of risk, but if anything they were slightly less risky than Empire. And certainly with regard to size they're less risky than Empire.

There's a great deal of evidence in finance that large companies are less risky than smaller companies and hence require lower rates of return than smaller companies. So in that regard, Empire would certainly be riskier than the majority of the companies in that group.

Q. Duke Energy was one of the five that came up greater than 10 percent, though?

A. They -- in this when I do a DCF application, I do not place a great deal of weight on the application of a DCF result to a single company. There's a great deal of uncertainty because of the process of estimating growth. One doesn't know what growth rate investors expect for sure, and the fact that the assumptions of the DCF may not apply strictly to every company.

I don't believe the DCF for a single company really represents that company's cost of equity. So I would not say that Duke Energy's cost of equity is 10.2. That happens to be the result of applying the DCF formula to Duke Energy, but I would suggest that since these companies are comparable in risk, that they would all have a cost of equity that using only the DCF model, which I wouldn't do, I would use all three models, that would be the average for the entire group.

Q. But you did give a lot of weight to Duke, though, because it's one of the largest ones in this group, I mean, and you used a market weighted average?

A. Right, but I didn't say that Duke's costs of equity was 10.2, even using just the DCF model. The average result that I used based on the DCF applied to the electrics was 9.4, which is significantly different than 10.2, because I don't believe that the result of applying the DCF to a single company is very reliable, even Duke Energy.

Q. But that 10.2 percent result for Duke did go into determining the cost of equity that you recommend for this -- that you found for the proxy group and ultimately recommend for Empire, and in fact that brings up the 9.4 percent -- that brings the market weighted average up somewhat to 9.4 percent?

A. I disagree with the premise of your question, which was that I'm recommending a 9 dot -- as I understood it. Correct me if I'm wrong.

Q. I'm not saying that you recommended 9.4 percent. I'm saying that the result of your DCF analysis of the proxy group was a market weighted average of 9.4 percent.

A. For the electric companies. And Duke Energy -- I don't think there's any reason to believe that Duke Energy is less risky -- is more risky than Empire. It's a much larger company. It has greater ability to diversify its asset mix than does Empire. It's much more widely recognized in the investment community, and so a lot more is known about Duke Energy, and it's easier to forecast the growth rate because more is known about Duke Energy. So I have no reason to believe that Duke Energy is any -- is any more risky.

If you pick out a number that's higher than an average and you say, did that raise the average, of course it did. One could also pick out a number that was less than the average and say, did that lower the average, and the answer would equally well be, yes, it did. One

should look at the average result for these companies, because the DCF result for any one of them is not a good estimate of cost of equity.
Q. Is Duke Energy an electric utility or an energy company?
A. It's an energy company that has comparable risk to Empire.
Q. The 9.4 percent cost of equity that you derived as an average for the electric companies using the DCF method is very close to the top end of Mr. Murray's recommended cost of common equity in this case, correct?
A. Would you repeat the question for me?
Q. I'll try to make it a little shorter. The 9.4 percent figure that you derived on Schedule JVW-1 is very close to the top end of Mr. Murray's recommended cost of common equity, correct?
A. Yes.
Q. Do you believe that the only correct way to apply the DCF model to Empire is to calculate it the way you did? I can elaborate on that. By calculating the DCF for comparable companies, both electric and gas.
A. It would depend on the circumstances. In this circumstance, I believe that that is the preferable way to estimate the cost of equity, because again, there's -- I think there's a -- there's very serious doubt

whether the DCF assumptions apply to Empire District, which is in an unstable situation right now where it's earning less than its required rate of return, and its earnings simply aren't sufficient to give investors an opportunity to earn their required return. And that situation is not sustainable in the long run.

So either Empire's return has to increase to equal its cost of capital or investors will begin disinvesting in the company. So that's not a sustainable situation. So yes, I would apply it to as large a group of comparable risk companies as possible, and in this case that would be both the select electric group and the natural gas group.

Q. I think my question was whether this was the only acceptable method and the only correct way, and I understand your answer to be that it's preferable but it's not necessarily the only one that would be appropriate.

A. I would -- if someone recommends an alternative, I would have to evaluate that alternative. I wasn't asked nor did I see it my task to come up with a variety of DCF approaches. I viewed my task as coming up with what I believe to be the best DCF approach, and this is my view of what it is. I'd have to -- I'd have to have a suggested alternative and evaluate that one to know whether it has some merit to it or not.

Q. In your testimony you criticized Mr. Murray because he didn't do his DCF calculation in accordance with the assumptions of the DCF model. Do you recall that?
A. What page are you looking at?
Q. I was afraid you were going to ask that because I have a page number written down here, but I don't trust it very much. Page 3 of your rebuttal testimony.
A. Yes. With regard to -- the reason I asked is this has to deal with one issue, and that is the annual versus the quarterly DCF model. And his use of an annual DCF model does not comport with the DCF assumptions that the price has to equal the present value of the future dividend payments. And when dividend payments are paid quarterly, the only DCF model that will equate the price to the present value of future dividends is a quarterly DCF model.
Q. So anyone who doesn't use the quarterly DCF model has not done it appropriately; is that your testimony?
A. Has not estimated the cost of equity correctly, unless one makes an adjustment at the end of the process, which some witnesses do. Some witnesses will calculate an annual DCF result, and then when it comes

time to exercise their judgment in making a recommendation, they will account for the fact in some way that dividends are paid quarterly, or they will try to suggest that something in the regulatory process itself will tend to account for that.
But in estimating the cost of equity, I'm saying the only way to get it right is to use a quarterly DCF model.
Q. Do you know if Dr. Murry used the quarterly DCF model?
A. I -- I believe that Dr. Murry used an annual DCF model, and to that extent, he would have been conservative in his estimate. But I will note that despite their differen-- that difference his recommendation and my recommendation are relatively similar and are significantly higher than the recommendations of Mr. Murry and Mr. Allen. So despite any differences, we may apply models in different ways, but we come up with conclusions that are relatively similar.
Q. One of the assumptions of the DCF model is that G represents the constant sustainable growth of dividends per share. Do you agree with that?
A. Yes.
Q. What do you think the growth rate is for

Empires dividends per share?
A. One doesn't know for sure what the growth rate is because we're looking at the growth rates of investors. Within the theory of the DCF model, one is looking for a constant growth, sustainable growth rate, but that has to be the constant growth rate used by investors when they make buy and sell decisions. The on-- one can only estimate that growth rate. One doesn't know it for sure.
Unless there are several analysts, I'd prefer to look at other companies rather than a single company such as Empire, but in my rebuttal testimony I do look at Empire because, in addition to the IBES, I look at the ValueLine and the S&P, and I use a growth rate of 4 percent, but again, that's an estimate that produces one DCF result that is not my recommendation. It's only one result that has to be taken in conjunction with the other results.
Q. Okay. My question was about the growth rate for Empire's dividends per share.
A. Yes, and I answered I don't know.
Q. I think you're answering in regard to earnings per share, are you not?
A. I'm sorry. With regard to -- I assumed that dividends and earnings would grow at the same rate

within the context of the DCF model, because that's the only -- that's the basic assumption of the DCF model. If they don't grow at the same rate and they're not expected to grow at the same rate in the long run, then the DCF model shouldn't apply -- be applied to that company.

And indeed given the -- what I consider to be under Empire's unsustainable situation where it's earning less than its cost of capital, I think there are serious questions whether the DCF model can be applied to Empire until it is earning its cost of capital.

But the best I can answer it is that if the DCF model is applied to Empire, one ought to recognize that there's a great deal of uncertainty in it, but one would still assume that the earnings and dividends would grow at the same rate in the long run.

Q. Using earnings per share instead of dividends per share is a bigger departure from the theoretical DCF model than is using the annual model instead of quarterly model, isn't it?

A. No. The -- the DCF model assumes that dividends and earnings grow at the same rate, and so the only question is, what's the best way to estimate that constant growth rate in both dividends and earnings? And there aren't long-run estimates of dividends growth that analysts provide generally, and there are -- there's a great deal of empirical work that shows that analysts' earnings growth rates are highly correlated with stock prices. So the best estimate of the constant growth of both dividends and earnings is the analyst long-run earnings growth forecast.

Q. You criticize Mr. Murray for determining yield on the basis of a six-month period because the stock price declined between the February to April time period and the May to July time period. Do you recall that?

A. I don't recall if I said it in terms of stock prices. I looked at it more that the dividend yield increased significantly over that six-month period.

Q. Have you noticed what the current stock price is for Empire?

A. If one were to update the DCF model today -- and the answer is I think it's about 22, but if one were to update it today, one would have to update all the parameters of the DCF model. And again, I wouldn't apply the DCF model just to Empire. I was looking at the information available at the time I did my rebuttal testimony, and it relates to the fact that, given that information, there was clearly an upward trend in the dividend yield.

Q. But the dividend yield has gone down since then?

A. Yes, and probably the growth rate has changed as well, so one would have to redo the entire analysis if one were to do it at all for Empire.
Q. Your testimony makes extensive use of averages, would you agree?
A. I use averages where I believe they are appropriate.
Q. Would you say that's extensive in this testimony?
A. I believe there are quite a number of instances where I use averages. I don't ever use them mechanically as averages. I'm always very aware of the assumptions behind each of the models that I'm using. I'm very aware of the uncertainties involved in both selecting a proxy group of companies and applying several cost of equity methods to a group of companies, and I use averages solely as a way to reduce the errors in the application of models, but that doesn't mean that I -- I don't apply judgment and rely equally heavily on judgment as I do on averages in my testimony.
Q. Well, in this case, what did you do that was not a mechanical application of averages?
A. One, I made a choice of what models were appropriate. Two, I made a choice of which companies was appropriate to apply -- to apply those models to. I

verified whether or not the resulting companies were comparable in risk or not to Empire, and those were what I would consider the two biggest steps.

Once I determined that these companies were in fact comparable on average across the broader group, and that it was appropriate to apply several methods, then and only then did I apply averages. So that given that I'm working with a group of comparable risk, I'm now using the average to reduce the inevitable errors and uncertainties that arise in applying any cost of equity method to a small group of companies.

Q. Is there a place in your testimony where you describe the thought process that you went through in choosing the comparable companies and in deciding which models to use in this case?

A. No. That's a -- a prior step that is part of my analysis that I didn't necessarily describe in my testimony, but I'm certainly happy to answer any responses -- answer any questions regarding that.

Q. Do you contend that Mr. Murray should have included ValueLine's 6.5 percent estimate without giving any consideration to why it was so much higher than the estimates of other analysts?

A. I believe one ought to always give consideration to whether any of the inputs in models are

reasonable estimates of investor expectations. I believe it's very difficult to apply the DCF model to a single company, as I've suggested, and I wouldn't do that. But once one applies it to a single company, then I think it's best to look at the reasonable analyst forecasts that are available, and for those in that category, I believe that it would be IBES and S&P and ValueLine. And I took an average of those three in my rebuttal testimony to come up with a 10.9 percent.
Q. But if Mr. Murray or any analyst used some judgment in determining the reliability of any analyst, that would be appropriate, that's a function of an analyst; is that right?
A. An analyst ought to always determine the reliability, but they ought to have a reason for why -- for what their judgment was, and they ought to understand that one can get a result but the result is highly uncertain unless one has a way to reduce the uncertainty through the inclusion of larger groups of companies and multiple methods of estimating the cost of capital.
Q. Now I want to ask you some questions about Schedule JVW-5 to your direct testimony. That's the one that pertains to the ex ante risk premium method, to make sure that I understand how this is determined. Looking at the first line of the schedule

under the column headed DCF, I understand that you calculated the DCF for Duke Energy for the month of September 1999 and came up with some figure; is that right?
A. No, that's not right. I looked at the group of companies --
Q. Okay. Let me interrupt. I think I can clarify that. I mean Duke Energy and the other I believe it was 18 electric companies.
A. Okay. Was there a reason you chose Duke Energy to separate out from the others? I didn't sep-- I didn't think of any company individually. I was unaware that Duke was one of the companies. I was aware, but it didn't make any difference. I looked at the risk of the group as a whole and found they were comparable in risk.
Q. I chose Duke because we've talked about that a little bit, but the point is that you did 19 separate calculations --
A. I did --
Q. -- to determine the DCF, correct?
A. Just as I did with my DCF method, I looked at the DCF result for each of the comparable risk companies and got an average DCF result for that group.
Q. That group of 19 companies in September 1999 --

A. Yes.
Q. -- was 11.379 percent?
A. That's correct.
Q. And then you did similar calculations for each additional month going down to January 2004, correct?
A. Yes.
Q. And then you averaged those, I don't know, 53 or some number of months. You averaged all of those results to come up with a DCF for the proxy group of electric companies under the ex ante risk premium method of 11.95 percent, correct?
A. Well, I report the average, and it doesn't matter which way I do it, but I emphasize more the risk premium at each point in time than what --
Q. I understand that.
A. -- what the DCF result was there.
Q. I'll have some questions for you about that in a minute.
A. Okay.
Q. The way you determine, then, the risk premium is you list in the third column there the A rated bond yield --
A. Yes.
Q. -- during that given month, correct?
A. Yes.

Q. And the risk premium is simply the difference between the number in the DCF column and the bond yield column?
A. That's correct.
Q. And then you add those all up and come up with an average of .0445, correct?
A. Yes.
Q. You state that the previous studies have shown that the ex ante risk premium tends to vary inversely with the level of interest rates?
A. Yes.
Q. Now, on Schedule JVW-5, the A rated bond yield for the last 12 months, the last 12 months shown, the most recent 12 months of February 2003 to January 2004, is below 7 percent for every one of those 12 months, is it not?
A. Yes.
Q. And for every one of the previous 41 months, the A rated bond yield is above 7 percent, is it not?
A. Yes.
Q. And for the last -- for those last 12 months where the bond yield was below 7 percent, the risk premium is actually quite low compared to the other months, wouldn't you say?

A. During that period, that is correct.
Again, I don't -- the whole purpose of this method is not to look at a single risk premium, but to look at the risk premiums over the entire period, and the appropriate way to test the relationship of the risk premium with interest rates is to do a statistical study, a regression analysis to determine whether the risk premium across all the periods varies with the interest rate.
Q. During the time covered by your study, though, the risk premium was actually low, below the average, at the time when interest rates were lowest?
A. Yes, but over the entire period, there was a negative relationship between the risk premium and interest rates as I posited, and indeed that is also applied to studies of these ex ante risk premium studies generally that have appeared in the literature. There -- it is quite generally agreed that the risk premium tends to increase when interest rates go down and decrease when interest rates increase, even though for shorter periods of time, such as this last year, one might find a different result.
Q. Even though in the period covered by this study the risk premium was low when interest rates were low, you have derived a risk premium that's actually higher than the average shown on this schedule; is that

not so?
A. Well, you started out saying over the period of this study, risk premiums were low. I assume when you were asking that question, you meant in the last year, interest rates were below the average.
Q. That's what I intended if I didn't say that.
A. That is correct, that even though they were lower over the last year, I used -- I didn't use the average risk premium over the last year. I looked -- I used the average risk premium over a longer period of time and looked at the relationship between interest rates and the risk premium. It's very similar to the ex post risk premium where one wouldn't look at the results of just the last ten years or the last five years. One would look at a longer period of time.
Q. So the average risk premium derived in this schedule is 4.45 percent, and the risk premium that you used is 4.68 percent, correct?
A. Yes.
Q. Schedule JVW-6, you derive the risk premium for the gas companies, and you determine that to be 5.03 percent, correct?
A. I can look up the number. I believe that's correct, but let me look in my testimony.

Yes. Yes. That's correct.
Q. So the risk premium for the gas companies was higher than the risk premium for the electric companies, correct?
A. Yes.
Q. And the result of the DCF analysis were higher for -- produced a higher ROE for the gas companies than the electric companies, correct?
A. Yes, and I don't put any particular significance to that. I believe that that is just the -- that's one of the anomalies of applying the DCF model. One ought -- one ought to look at both methods and both groups of companies. There are times when the LDCs are less than the electrics. There are times when the LDCs are more than the electrics. They clearly have comparable risk, so on average they ought to have the same cost of equity. If they don't have the same DCF result, that's a problem with the DCF method, not a problem with the use of the companies as proxy groups.
Q. But the risk premium is supposed to measure the risks, isn't it?
A. The risk premium is an estimate of the risk that in this case is based on DCF results. And another estimate of the risk are the bond yield -- are the bond ratings, and the safety ranks, and those so clearly

establish that these companies are of equal risk, and indeed, utility commissioners have treated the companies from my experience as being indistinguishable in terms of risk that I don't think there's any doubt that these are risk proxy companies.

In fact, the LDCs, if anything, may be less risky than the electric companies at the present time. What is highly uncertain is the results of applying the DCF model, and so one should reduce that uncertainty by applying the DCF model and the risk premium form to a wider group of companies.

Q. Now, you determined the risk premium for 19 electric companies and 12 gas companies and averaged those results?

A. Yes.

Q. Which gives actually more weight to each gas company than to each electric company since there's a smaller number of them, correct?

A. It may, but I didn't -- didn't think of it that way, and I don't -- I don't think that that difference is significant.

Q. If it doesn't matter, why didn't you just throw them all into one group and add them up and divide by 31?

A. Because I have -- as I have -- have

developed this risk premium over time, I have -- I found it easier to do the risk premium in two separate groups of companies.
Q. Easier or more accurate?
A. Both.
Q. Now I want to ask a little bit about the ex post risk premium method. I believe you have calculations on JVW-7 and JVW-8. Am I correct to understand that the stock return column on line 2 shows the total return on the basket of the S&P 500 stocks for the one-month period from January of 2002 to January of 2003?
A. Yes, I believe you said the one-month period. It would be the one-year period.
Q. I intended to say one year.
A. Yes. Okay.
Q. And similarly for each of the other entries in that schedule?
A. Yes.
Q. And then the results shown on line 68 is simply the arithmetic average of those 66 numbers that are contained in that column, correct?
A. Yes. And let me just also correct one item. The S&P 500 didn't actually exist as a group until I believe it was somewhere in the 1960s. Prior to that, there was also an S&P index, but it was smaller than

500 companies, and so this data relates to whatever the S&P stock index was in the particular year. It wasn't always 500 companies, although it has been over the last 30 years or so.

Q. And then you did a similar calculation of bond return to come up with an average?

A. Yes.

Q. And the risk premium is the difference between those two amounts?

A. Yes.

Q. The S&P 500 includes companies other than utilities, doesn't it?

A. Yes, it does.

Q. In fact, there's very few utility stocks in the S&P 500, about 33 of them?

A. That's -- I don't know how many, but yes, there are -- there are certainly the minority.

Q. So what you're doing then is comparing the bond return and utility bonds with large company stocks of mostly non-utility companies?

A. In the first instance, that's correct, for the first study. For the second study I'm looking at only utility stocks, and I know that the difference between the two is not very large. For the first group it's 5.22 risk premium. For the second group it's 4.61. That's a difference of only 60 basis points, which for the numbers that we're looking at is not a particularly large difference.

Q. But the lower number is the one that pertains to the utility stocks, correct?

A. Yes.

Q. Now, your conclusion from this ex post risk premium study was that the risk premium was halfway in between the number derived on JVW-7 and JVW-8?

A. Yes.

Q. Does that imply that your proxy group of companies have an average risk or average risk premium that's halfway between a utility stock and an S&P 500 stock?

A. No. One has to be careful to recognize the time dimension. I interpreted your question to mean do I think that there's half -- that they're halfway between today between the risk of an S&P 500 stock and S&P utility stock, and the answer to that would be no. I believe they would have the risk of utility stock.

However, this study takes place from 1937 to the present time, and I believe that utility stocks have increased in risk. The study indicates the average risk of the S&P utilities over the life of the study. Today I believe that utilities have more risk than they did over the life of the study, and so it's my belief that in essence that a utility such as Empire District today is about halfway between the average risk S&P utilities over the life of the study compared to the average risk of the S&P 500 over the life of the study.

Q. Did you make any attempt to quantify that or is that just a hunch?

A. It's a judgment. Also recognizing once again that we're only talking about 30 basis points here, the average that I get is the average of 5.22 and 4.61, which is about 4.91 and the utilities is 4.61. If you take that 30 basis paints and you recognize that there were also three methods that I used to estimate the cost of equity, we're talking about 10 basis points on the cost of equity, which certainly is well within the range of -- of the application of judgment, and my application did not have a material impact on my recommendation because they're such a close numerical value between the risk premium for the S&P 500 and the risk premium for the S&P utilities.

Q. Nonetheless, you saw fit to include it in your study to add that 30 basis points to do a determination of the risk premium under the ex post risk premium method?

A. For the reasons that I suggested, I believe

that the ess-- that the utilities today are more risky than were utilities on average over the life of my study.
Q. Do you know what the current yield is on A rated utility bonds?
A. Yes. It's slightly over 6 percent.
Q. If I told you it was 5.94 percent in October 2004, October/November issue of Merchant Bond, do you think it's gone up since then?
A. The numbers that I'm seeing on a weekly basis are indicating that it's more like 6.05 or something like that.
Q. Okay. Now I want to discuss the reasoning behind your discussion of the weighted average cost of capital, which is on page 49 to 51 of your direct testimony. That calculation is based upon the premise that the overall weighted cost of capital for Empire is identical to the original weighted cost of capital for your proxy companies, correct?
A. Yes.
Q. What's the authority or other basis for that conclusion?
A. I believe I was asked that in a data response, and the answer is -- or Data Request, and that the answer is that the assets of the proxy companies have approximately the same risk as the assets of Empire, and

it's a well-established principle in finance that investment in assets of the same risk have the same cost of capital, and that cost of capital is measured by calculating a weighted average of the financing that was used to acquire those assets.

It's commonly accepted throughout finance that the appropriate way to calculate the weighted coverage cost of capital is as I've done it here, and so the logic is that the weighted average cost of capital ought to be the same for investments in assets of the same risk, and that's the case here.

Q. Is the general methodology that you've used in this case where you use three different methods and average them to determine a cost of capital, is that addressed in the literature?

A. I don't know anywhere in the literature where anyone would -- would discuss how many methods one ought to use. In fact, even though I used three in my direct testimony, I also use the CAPM in my rebuttal testimony and apply it to the comparable companies of both Mr. Murray and Mr. Allen. And so I really have looked at four methods in here.

My CAPM result for those companies were 11.4 percent, which is approximately the same as the 11.3 that I'm recommending, but it is recognized that the estimating the cost of equity is a task that's riddled with uncertainty, that models provide only approximations to the cost of equity because they are always based on assumptions that don't necessarily apply in practice, and that one can reduce the uncertainties in estimating the cost of equity by applying several groups of companies, at least frequently one can, depending on the circumstances. And I believe they apply here to a broad group of companies with comparable risk. So I think that my method is consistent with both practice and with financial theory.

Q. But the method isn't specifically described in any journal article or book?

A. Nor would I expect it to be. I don't know of any book that describes a method for estimating the cost of equity. It's widely accepted, as I've suggested, that it's a difficult task and that one -- that there are several methods that one can use. There are even more than -- than the four methods that I've just suggested, in fact, but one at least ought to use methods that are reasonable in a situation and ought to apply them to a reasonably large sized sample of comparable companies. But no one agrees on exactly what combination of methods. They do agree that it's better to use a larger sample of comparable companies than a single company, and they agree that when one method applied to the company does not -- when the assumptions of the method do not apply to that company, that one ought to use several methods.

Q. And there's nothing in the -- no articles or book that describes this final step that you took of adding the 59 points in this case, 59 basis points in this case, so that the weighted average cost of Empire would be equal to the weighted average cost of capital for the proxy group?

A. For non-regulated companies, that wouldn't have been the final step. That would have been the first step. It would have been assumed that the weighted average cost of capital would have to be the same, and that would be part and parcel of the process. It's -- that's described in every corporate finance textbook that I've ever seen. There really aren't very many finance books that talk about applying the cost of capital just to utilities, because they really assume that one estimates the cost of capital in much the same way for all the companies in the marketplace.

Q. So you think that this final step is an essential part of your analysis?

A. Yes.

Q. And you have done it in how many cases now?

A. I have -- however many, I've done it four or five cases.
Q. Okay. And I believe you testified that you had given testimony in about 360 cases?
A. Yes. And let me correct my response. I've done it in four or five electric and gas cases. I've done it in the telecommunications industry since 1996.
Q. Okay.
A. Because the telecommunications industry is -- there's a greater gap between market values and book values than in the electrics and gas industry. But however many cases you've applied it to in the past doesn't change the fact that it's correct today. It's consistent with finance theory. It's consistent with the way the cost of capital is described in finance textbooks, and it seems to me the only relevant question today is what's the right way to estimate cost of equity today, and this is it.
Q. So this is the correct way to do it today. Was it incorrect to do it the other way without this final step in all of the gas and electric cases that you did prior to 2004?
A. It was incorrect theoretically. One should always have estimated the cost of capital using market value capital structures. It was -- I didn't -- as I

explained in a response to an interrogatory, I did not view my assignment as doing that in electric and gas companies, as applying financial theory.

I viewed it as -- as estimating just the cost of equity using traditional methods for a group of proxy groups and not looking at the additional question of whether the company would actually be able to earn its required rate of return if I applied the -- those methods to a book value rate base. I've expanded the scope of my analysis, and so my prior analysis wasn't wrong. It was based on a different assignment, in a different scope of analysis.

Q. And in this case, you're trying to estimate for the Commission Empire's cost of common equity, correct?

A. Yes.

Q. Isn't that what you were doing in all of those prior gas and electric cases?

A. In this case, what's different is that in this case not only am I applying the results of cost of equity methodologies and reporting those results, I am also asking what -- and this is the purpose of the last step, is what cost of equity is given those results of the cost of equity methods applied to the proxy companies, would be required when applied to the target company's capital structure to give that company an opportunity to earn its cost of capital and attract -- especially to attract capital in the marketplace. That's the last step that was missing.

Q. And that's different now from what it was before in those other cases?

A. Yes. From what my assignment was in the past, yes.

Q. Okay. Who gave you this assignment?

A. That was an assignment that -- that I -- I would say evolved over time. I accepted it early on. I didn't question it as a -- as a second step. I did question it in the telecommunications industry because of the large gap between market and book values. It was always -- I've always known that it's been consistent with financial theory. Indeed, it was the only method consistent with financial theory to look at market value capital structures.

And I decided that the time had come to exercise that consistency and apply it to the electric and gas industries as well.

Q. I would have thought that those prior cases your assignment was to tell the Commission at which you were testifying what the cost of equity was. Is that mistaken?

A. That is mistaken. My assignment was to -- to estimate the cost of equity for proxy companies but not ask the additional question, would the company be able to attract capital in competition in the capital marketplace if that result were applied to the company's regulatory capital structure.
Q. So in these court cases that you've testified in in 2004, you're trying to determine what the return on equity must be to attract capital, whereas in the past you were only trying to determine the cost of equity?
A. In the past I was trying to determine what the cost of equity was for a proxy group of companies, and I didn't ask the additional question, if we applied that cost of equity for the proxy companies to the regulated utility's book value capital structure, would the regulated utility be able to attract capital in the marketplace in competition with the proxy companies?
Q. So in the past the commissions just wanted to know what the cost of equity was for a group of proxy companies, and they didn't care about the company that was the subject of the rate case?
A. In the past it got to be a practice that was unquestioned in the -- in regulatory circles for whatever reason to just assume that if we did a cost of

equity in the marketplace and applied it to a book value capital structure, that somehow magically it would allow the company to attract capital. And that assumption was not questioned. Most financial experts with any training in finance at all recognize that that was a poor assumption, that in fact it wouldn't occur. It would only occur under -- under the most unusual circumstances.
But it just for some reason got to be an accepted practice that was not consistent with financial theory, and so no one questioned it. Everyone that I know went on the same way. It was only in the last several years in the electric and gas industry that I and several others began to say, look, the time has come to question the assumptions we're using and to get it right.
Q. So it was not questioned, but it was all wrong?
A. Yes.
MR. KRUEGER: Thank you. Those are all the questions I have.
JUDGE THOMPSON: Thank you, Mr. Krueger.
We're going to go ahead and recess at this time. We will reconvene tomorrow at 8:30 in the morning.
Mr. Coffman, you may take up your cross-examination at that time. Thank you.
MR. FREY: Before we go off the record, we

would like to offer an exhibit if we could on those ROE rate of returns sort of scenarios that you had requested last week. We would like to offer that as an exhibit. I believe the company --

JUDGE THOMPSON: Okay.

MR. FREY: -- wants to put in its own exhibit.

JUDGE THOMPSON: Do you want to do that now?

MR. FREY: We can do it tomorrow, but I think we said we would have it today. So if you prefer to delay it until tomorrow, that would be fine.

COMMISSIONER DAVIS: I think I've got enough homework for the evening.

JUDGE THOMPSON: See you tomorrow morning, Denny.

MR. FREY: Okay. Thank you.

JUDGE THOMPSON: Mr. Coffman?

MR. COFFMAN: I thought I would raise one other matter, and that is our office has received various letters and phone calls from individual consumers wishing to comment on the proposed rate increase. We have approximately 40 contacts, individuals that did not find, I guess, the local public hearing time or location to be convenient to them and wanted to make a comment.

I noted in this case, as opposed to other cases, the Commission's own address and phone number were not made available to the public, and so it was my assumption, I guess, that the -- that my office was the only place at which the public was told they could make such a comment.

And many of them have been told that these comments would be passed on to the Commission, and so I would like to either offer this into the record or at the minimum provide them into the case papers that the Commission has for this particular case.

JUDGE THOMPSON: Do you have copies for counsel?

MR. COFFMAN: I do.

JUDGE THOMPSON: Have they seen them yet?

MR. COFFMAN: Mr. Swearengen has.

JUDGE THOMPSON: Do you have any objection?

MR. SWEARENGEN: I certainly object to the statements becoming record evidence in this proceeding. I have been furnished with a set of letters. I haven't really reviewed them. But if these people had showed up and testified, I very likely might have inquired of them. I have no objection if there's some process whereby they can be placed with the case papers, whatever that might be, but I do object to these documents coming into evidence.

JUDGE THOMPSON: Okay. Since there's an objection, we'll take this up tomorrow morning as well.

MR. COFFMAN: Thank you.

JUDGE THOMPSON: Anything else? Commissioner?

COMMISSIONER DAVIS: I may have a couple of hours worth of questions for Mr. Krueger tomorrow.

JUDGE THOMPSON: Very well. Mr. Conrad?

MR. CONRAD: I just wondered, Judge, if you had an opportunity to talk to the Commissioners about that witness.

JUDGE THOMPSON: I think you can safely tell Mr. Mosora that there will be no questions for him.

MR. CONRAD: Thank you very much.

JUDGE THOMPSON: Thank you. We are in recess.

WHEREUPON, the hearing of this case was Recessed until December 14, 2004.

I N D E X

RATE OF RETURN

E X H I B I T S