

Page 1	Page 3
1 (9:03 a.m.) 2 CHAIRMAN: 3 Q. Undertakings, okay. 4 MR. HAYES: 5 Q. Yes, good morning, Mr. Chair. We have four 6 undertakings to file today. The first two 7 were prepared by Ms. McShane. Undertaking No. 8 2, as it came up in the list, is an update of 9 Ms. McShane's Table 8 to include data for 10 January 2013, and that's filed this morning. 11 Undertaking No. 4, I'll just give you the 12 reference to that. It's the transcript of 13 January 14th at page 99. Undertaking No. 4 14 from the transcript of January 14th at page 15 179 to provide the average risk premium when 16 treasury yields were below four percent, 17 outside the period from September 2008 to 18 March 2009. That's filed. 19 Undertaking No. 8 is with respect to the 20 renegotiation of the Company's revolving 21 credit facility and the material adverse 22 change clause that was removed from the 23 agreement at one point, and that's filed. 24 And as well, Undertaking No. 10 from the 25 transcript of January 15th, page 153, to	1 know. 2 DR. VANDER WEIDE: 3 A. I think so. 4 KELLY, Q.C.: 5 Q. Thank you, Mr. Chairman. Dr. Vander Weide, 6 you prepared a report in this matter which is 7 found in Volume 3 of the company's material. 8 Do you adopt that written evidence as your 9 testimony in this matter? 10 DR. VANDER WEIDE: 11 A. Yes, I do. 12 KELLY, Q.C.: 13 Q. Are there any changes which you wish to make? 14 DR. VANDER WEIDE: 15 A. No, there are not. 16 KELLY, Q.C.: 17 Q. Thank you. If I take you over to page five of 18 that report, we'll just have a quick review of 19 your qualifications. I understand that you 20 are currently a research professor of finance 21 and economics at Duke University of Fuqua 22 School of Business, if I pronounced that 23 correctly? 24 DR. VANDER WEIDE: 25 A. Fuqua.
Page 2	Page 4
1 provide the most recent presentation of 2 Newfoundland Power given to DBRS and Moody's 3 in 2011, and those are filed this morning. 4 That's it, Mr. Chair. 5 CHAIRMAN: 6 Q. Okay. Now, you have to be sworn, sir. 7 KELLY, Q.C.: 8 Q. Thank you, Mr. Chair. The next witness is Dr. 9 James Vander Weide. 10 DR. JAMES VANDER WEIDE, SWORN 11 KELLY, Q.C.: 12 Q. Thank you, Mr. Chairman. 13 CHAIRMAN: 14 Q. I have to ask you first the origin of your 15 name. Is it Dutch or German, or is there a 16 difference? 17 DR. VANDER WEIDE: 18 A. It's Dutch. 19 CHAIRMAN: 20 Q. Dutch, okay. 21 DR. VANDER WEIDE: 22 A. I came from a town which was most entirely 23 Dutch in the midwest. 24 CHAIRMAN: 25 Q. Okay. Very industrious people, the Dutch, you	1 KELLY, Q.C.: 2 Q. Fuqua. You're also the president of Financial 3 Strategy Associates, a firm that provides 4 strategic and financial consulting services? 5 DR. VANDER WEIDE: 6 A. Yes, that's correct. 7 KELLY, Q.C.: 8 Q. And you have a PhD in finance from 9 Northwestern University. You've been a 10 professor, and now research professor, at 11 Duke. You've published extensively in the 12 areas of finance and economics and taught 13 courses at Duke for approximately 35 years? 14 DR. VANDER WEIDE: 15 A. Yes. 16 KELLY, Q.C.: 17 Q. And I understand you have an extensive 18 experience with US utilities and US 19 regulation, as well as in Canada. I'll deal 20 with the Canadian testimony first. I 21 understand you've appeared before the National 22 Energy Board, the Ontario Energy Board, the BC 23 Utilities Commission, the Alberta Utilities 24 Commission and the CRTC? 25 DR. VANDER WEIDE:

Page 5	Page 7
1 A. Yes, that's correct. 2 KELLY, Q.C.: 3 Q. Okay. And I'm certainly not going to go 4 through all of the United States ones, but I 5 understand you've appeared in almost 400 6 hearings in North America in total, including 7 43 States in the United States of America? 8 DR. VANDER WEIDE: 9 A. That's correct. 10 KELLY, Q.C.: 11 Q. And the Federal Energy Regulatory Commission 12 or FERC? 13 DR. VANDER WEIDE: 14 A. Yes. 15 KELLY, Q.C.: 16 Q. And other non-energy related entities as well? 17 DR. VANDER WEIDE: 18 A. Yes, that's correct. 19 KELLY, Q.C.: 20 Q. Okay. Now with that by way of introduction, 21 during the course of this we'll discuss a 22 number of topics. I want you to address your 23 comparable risk utilities, the cost of equity 24 methods and results that you use and then as 25 we get further along, I'll get you to give us	1 DR. VANDER WEIDE: 2 A. Well, I used two groups because there are 3 advantages and disadvantages of both groups. 4 The advantage of the BMO CM basket of 5 utilities is that it includes only utilities 6 that have extensive involvement in regulated 7 utility operations. The disadvantage is that 8 data for those companies are not available for 9 as long of a period as for the S&P/TSX 10 utilities. The primary disadvantage of the 11 S&P/TSX utilities is that it includes only 12 several companies, approximately three, that 13 have extensive proportion of their assets 14 devoted to regulated utility services. 15 Although they're called utility and power 16 companies, most of them are unregulated power 17 companies. The only advantage is that data is 18 available for a longer period of time for 19 those companies. 20 KELLY, Q.C.: 21 Q. Okay. Now you indicated you used two groups 22 of US utilities as well. Why do you use two 23 groups of US utilities? 24 DR. VANDER WEIDE: 25 A. I use two groups of US utilities for several
Page 6	Page 8
1 some comments on Dr. Booth's testimony and Mr. 2 MacDonald's testimony, the reports that 3 they've filed. So if we start with comparable 4 utilities, how do you analyze Newfoundland 5 Power's cost of equity? 6 DR. VANDER WEIDE: 7 A. I analyze Newfoundland Power's cost of equity 8 by applying several cost of equity methods to 9 several groups of comparable risk companies. 10 I then evaluate the results of each of these 11 methods to obtain a recommended cost of equity 12 for Newfoundland Power. 13 KELLY, Q.C.: 14 Q. Now in your report, you consider two groups of 15 Canadian utilities and two groups of US 16 utilities. What groups of Canadian utilities 17 do you use for your analysis? 18 DR. VANDER WEIDE: 19 A. I used the five Canadian utilities included in 20 the BMO CM basket of Canadian utilities and I 21 used the ten utility and power companies 22 included in the S&P/TSX utility index. 23 KELLY, Q.C.: 24 Q. Okay. Why do you use two groups of Canadian 25 utilities? What's the benefit of that?	1 reasons. First, I don't really think there's 2 a choice but to look at US utilities because 3 even the BMO CM basket of Canadian utilities 4 includes only two companies that have over 80 5 percent of their assets devoted to regulated 6 utility service, and so we would really only 7 have a sample of two companies that are 8 primarily regulated utilities. For the US 9 companies, there's a very much larger sample 10 of companies with over 80 percent of their 11 assets devoted to regulated utility service 12 and when I say companies, I mean publicly 13 traded companies, because we need publicly 14 traded companies to estimate the cost of 15 equity. We also, for the US utilities, can 16 obtain reasonable estimates of growth rates to 17 use in estimating the cost of equity. Whereas 18 these data are not generally available for 19 Canadian utilities. And historical return 20 data for the US utilities are available for 21 much longer period of time. 22 KELLY, Q.C.: 23 Q. We've had a fair bit of discussion in this 24 hearing already about business and financial 25 risks. Can you help the Board with

Page 9	Page 11
1 understanding are there differences in 2 business and financial risks between Canadian 3 and US utilities? 4 DR. VANDER WEIDE: 5 A. I don't really believe there are, and let me 6 start out by saying that I don't really think 7 that it's easy to measure business risk. We 8 don't have a precise measure that we can say 9 this is the measure of business risk. We can 10 only look at it and evaluate it and get some 11 approximate feel for it. But considering 12 that, I believe that they are comparable in 13 risk, in business risk, because they rely on 14 similar technologies to transmit and deliver 15 electricity. They have very similar cost 16 structures which involve a heavy proportion of 17 fixed costs and a smaller proportion of 18 variable costs. They're regulated under 19 similar cost of service philosophies and 20 they're based on a fair rate of return 21 principles and the only major difference is 22 that there's quite a difference in financial 23 risk between the Canadian and US utilities in 24 general. The Canadian utilities tend to have 25 much lower equity ratios and higher debt	1 Why do you apply your cost of equity methods 2 to one or more groups of these comparable risk 3 utilities rather than simply look at the 4 utility itself? 5 DR. VANDER WEIDE: 6 A. Well, each of the cost of equity methods, the 7 discounted cash flow, the risk premium and the 8 capital asset pricing model, require estimates 9 of unknown quantities, such as Betas or growth 10 rates or risk premiums, that are essentially 11 uncertain. We can estimate them, but there's 12 some uncertainty associated with those 13 estimates. If you estimate the cost of equity 14 for a single company or even a very small 15 group of companies, there's a fairly wide 16 range around that cost of equity estimate. 17 But if you use a larger sample of companies, 18 you can reduce the uncertainty around the cost 19 of equity estimate because unusually high 20 results for one company can be offset by 21 unusually low results for another company and 22 you're essentially looking at the average of 23 the comparable companies and you can have more 24 confidence in that average the larger the 25 group.
Page 10	Page 12
1 ratios than the US utilities. 2 KELLY, Q.C.: 3 Q. So do the Canadian utilities have a higher 4 financial risk than the American utilities? 5 DR. VANDER WEIDE: 6 A. Yes, Canadian utilities generally have a 7 higher financial risk and their business risk 8 is approximately the same. 9 KELLY, Q.C.: 10 Q. Okay. Is there -- what about the average bond 11 ratings of the Canadian and US groups that you 12 use, how do they compare? 13 DR. VANDER WEIDE: 14 A. Well, the average bond rating for my larger 15 group of US utilities is BBB+ and the average 16 bond rating for my smaller group of US 17 utilities is in the range BBB+ to A-. For the 18 purpose of estimating the cost of equity, bond 19 ratings of BBB+ or A- are approximately the 20 same. Equity investors don't really 21 distinguish in terms of their required return 22 for companies in that range of bond ratings, 23 in my opinion. 24 KELLY, Q.C.: 25 Q. Okay. So we have these various groups then.	1 (9:15 a.m.) 2 KELLY, Q.C.: 3 Q. Okay. Now that explains why you don't just 4 look at the utility alone. Can you take it a 5 step further and explain why you then apply it 6 to several different groups of utilities? 7 DR. VANDER WEIDE: 8 A. Yes. I apply it to several different groups 9 of utilities because estimating risk also 10 involves uncertainty. Risk cannot be measured 11 precisely. And so by looking at several 12 groups of utilities, I can assess the impact 13 of different definitions of risk comparability 14 on the cost of equity estimates to see whether 15 it matters how we measure risk. 16 KELLY, Q.C.: 17 Q. Okay. Now let's turn next then to the methods 18 that you used to do your analysis here. Would 19 you explain that to the Board, what methods 20 you used to estimate your cost of equity? 21 DR. VANDER WEIDE: 22 A. Yes. I used three generally accepted cost of 23 equity methods, the DCF or the discounted cash 24 flow, the risk premium and the capital asset 25 pricing model. The DCF method is based on the

Page 13	Page 15
1 assumption that the stock price is equal to 2 the discounted value of the future cash flows 3 that investors expect to receive from 4 investing in a stock. The risk premium is 5 based on the premise that the required return 6 on equity is equal to the interest rate on a 7 bond, plus an additional risk premium required 8 to compensate the investor for the additional 9 risk of investing in stocks compared to bonds. 10 And the capital asset pricing model assumes 11 that the required return is equal to a risk 12 free rate plus the product of a risk factor 13 called BETA and the expected risk premium on 14 the market portfolio of all securities. 15 KELLY, Q.C.: 16 Q. Okay. Now based on then your DCF, risk 17 premium and CAPM methods applied to your 18 comparable risk companies, what was your 19 conclusion regarding your comparable risk 20 companies cost of equity? 21 DR. VANDER WEIDE: 22 A. Based on my application of the DCF, the Ex 23 Post risk premium and the Ex Ante Risk premium 24 methods to my proxy groups of utilities, I 25 conclude that my comparable utilities have a	1 don't -- I recommend not giving any weight to 2 the results of the CAPM. 3 KELLY, Q.C.: 4 Q. And you explain that further to the Board? 5 What's your evidence that CAPM underestimates 6 the cost of equity for utilities? 7 DR. VANDER WEIDE: 8 A. The evidence can be described by looking at 9 how the BETA component is estimated in the 10 CAPM. The BETA component is estimated by 11 dividing the expected risk premium on the 12 utility or group of utilities by the expected 13 risk premium on the market as a whole. So 14 it's the expected risk premium on utilities 15 compared to or divided by the risk premium on 16 the market as a whole. 17 Now although utilities are frequently 18 considered to be less risky than the market as 19 a whole, and I would agree with that, my 20 evidence looking at historical data for a 21 period from 30 to 60 years of evidence on 22 expected risk -- on actually earned returns 23 and risk premiums on utility stocks in Canada 24 compared to the S&P/TSX composite indicates 25 that the actual earned risk premium over 30 to
Page 14	Page 16
1 cost of equity of 10.4 percent. I also 2 obtained a CAPM result in the range 8.05 to 3 9.3 percent. However, I give no weight to the 4 results of the CAPM. 5 KELLY, Q.C.: 6 Q. Chris, can we just go to page 45 and pull up 7 the table in the middle of that page? Dr. 8 Vander Weide, does that table summarize your 9 conclusions with respect to DCF Ex Post Risk 10 premium and Ex Ante Risk premium and the 11 average? 12 DR. VANDER WEIDE: 13 A. Yes, it shows that the range of my results was 14 from 9.9 to 11.1 and that the average result 15 was 10.4. 16 KELLY, Q.C.: 17 Q. Okay. Now you said to the Board a few moments 18 ago that you did a capital asset pricing model 19 analysis but you didn't put any weight on it. 20 Could you explain to the Board why not? 21 DR. VANDER WEIDE: 22 A. Yes. I present a lot of evidence in my 23 testimony that the CAPM significantly 24 underestimates the cost of equity for 25 utilities and because of that evidence, I	1 60 years on Canadian utilities exceeds their 2 actual or earned risk premium on the S&P/TSX 3 composite. To me, this suggests that either 4 the S&P/TSX composite is not a good measure of 5 the market basket of all securities or we have 6 significantly underestimated the BETA and the 7 BETA should be greater than one, which I don't 8 really hold to, or three, the CAPM just 9 doesn't work for Canadian utilities. 10 And with regard to US utilities, the 11 model works better, but the average historical 12 ratio of the risk premium on utilities to the 13 risk premium on the market S&P 500 is a little 14 over 90 percent, indicating that if you are to 15 use the CAPM you ought to at least use a BETA 16 that's a lot closer to one, in the range of a 17 .9, than a BETA of .5 or .6. 18 KELLY, Q.C.: 19 Q. And you discuss in detail in your report, 20 beginning at page 30 and -- sorry, 39 and 21 running through to about page 45. When you 22 did your CAPM calculation that you told us 23 about a few minutes ago, what BETA did you use 24 in that? 25 DR. VANDER WEIDE:

Page 17	Page 19
1 A. I talked about a range of 8.05 to 9.3. That 2 was for US utilities. 3 KELLY, Q.C.: 4 Q. Okay. 5 DR. VANDER WEIDE: 6 A. And because of the evidence that the CAPM 7 doesn't apply to Canadian utilities, and for 8 the lower end of that range, I used at BETA of 9 .73 which is the published BETA by Value Line, 10 and for the higher end of that range, I used a 11 BETA of .92 which was the historical risk 12 premium on the utilities divided by the 13 historical risk premium on the market index. 14 KELLY, Q.C.: 15 Q. Okay. And for the reasons you've explained, 16 you actually then put no weight on that 17 calculation? 18 DR. VANDER WEIDE: 19 A. That's correct. 20 KELLY, Q.C.: 21 Q. Okay. Now in Dr. Booth's testimony, he relies 22 on the CAPM to estimate Newfoundland Power's 23 cost of equity. Does the explanation that 24 you've given apply to his CAPM methodology as 25 well?	1 and natural gas utilities. So, since the 45 2 percent is less than the 49 percent, I 3 assessed -- I concluded that it was a 4 reasonable equity ratio. 5 KELLY, Q.C.: 6 Q. Okay. So can you summarize the specific 7 recommendation that you are making to the 8 Board in relation to Newfoundland Power's cost 9 of equity? 10 DR. VANDER WEIDE: 11 A. Yes. I recommend that Newfoundland Power be 12 allowed to earn a return of 10.4 percent on an 13 equity ratio of 45 percent. 14 KELLY, Q.C.: 15 Q. Now I want to come back to Dr. Booth's report 16 for a few more moments. One of the issues 17 that he raises is whether US utility cost of 18 equity are reliable indicators of Canadian 19 utility cost of equity and he argues that in 20 his opinion US utilities are more risky than 21 Canadian. Can I get you to speak to that 22 issue? 23 DR. VANDER WEIDE: 24 A. Yes. Dr. Booth makes two points with regard 25 to the US utilities. First, he says that, in
Page 18	Page 20
1 DR. VANDER WEIDE: 2 A. Yes, it does. Dr. Booth estimates 3 Newfoundland Power's cost of equity as -- and 4 relies entirely on the CAPM to arrive at his 5 estimate and he uses a BETA of approximately 6 .5 up to .6, and my studies indicate that over 7 the last 30 to 60 years, the actual historical 8 risk premiums on the Canadian utilities are 9 greater than the historical risk premiums on 10 the S&P/TSX composite suggesting that a -- 11 that rather than being only half as risky as 12 Dr. Booth assumes, the Canadian data indicates 13 that the BETA should actually be greater than 14 one or that the CAPM just doesn't work for 15 Canadian utilities. 16 KELLY, Q.C.: 17 Q. Now, if I can switch gears a little bit, how 18 did you assess Newfoundland Power's 19 recommended common equity ratio of 45 percent? 20 DR. VANDER WEIDE: 21 A. I assessed Newfoundland Power's common equity 22 ratio by comparing their common -- their 23 recommended equity ratio to the average 24 approved equity ratio for US utilities, which 25 is approximately 49 percent for both electric	1 his opinion, US financial markets in general 2 are more risky than Canadian financial 3 markets. Second, he says that Canadian 4 regulators provide greater regulatory 5 protection than US regulators. And then 6 third, he says that Canadian utilities are 7 considerably less risky than US utilities. 8 KELLY, Q.C.: 9 Q. Let's take the financial market discussion 10 first. Have you examined the riskiness of the 11 US financial markets compared to Canadian? 12 DR. VANDER WEIDE: 13 A. Yes, I have. I've looked extensively at the 14 returns on the S&P 500 compared to the returns 15 on the S&P/TSX composite and over virtually 16 any time period, the standard deviations, 17 which is a measure of variability of returns 18 which is also used as a measure of risk, is 19 approximately the same for the Canadian market 20 as for the US market. There's a very slight 21 difference, but it's not statistically 22 significant, and that includes also for even 23 the more recent periods of financial 24 difficulties. The Canadian returns have 25 pretty well been in line with the US returns

Page 21	Page 23
1 in terms of both moving up and down during 2 approximately the same years and having the 3 same degree of volatility. 4 KELLY, Q.C.: 5 Q. Okay. Now in your report, you discuss the 6 relatively -- the relative regulatory 7 protections between Canada and the United 8 States, appreciating there are multiple 9 jurisdictions in the United States, things 10 like cost adjustment, revenue stabilization 11 mechanisms, et cetera. How do they compare? 12 DR. VANDER WEIDE: 13 A. Well, although I didn't do a detailed study 14 where I looked at every utility, because 15 that's very expensive and time consuming, as 16 we discussed earlier, I've been involved over 17 the last 30 years in regulation in 18 approximately 43 States, and I'll say that for 19 many years, there were more cost adjustment 20 mechanisms and rate stabilization mechanisms 21 in Canada than in the US, but there's been 22 quite a change over the last number of years 23 and the US utilities are not only focusing 24 more on regulatory operations than they had 25 for many years and that now most of them are	1 clause or similar clauses. The best way is to 2 look at risk in the marketplace. And for the 3 public traded US utilities and Canadian 4 utilities, I've examined the variability in 5 their returns over considerable periods of 6 time. Generally, the variability of returns 7 are very -- are slightly lower for US 8 utilities as measured by the standard 9 deviation than it is for Canadian utilities, 10 but similar to the standard deviations of 11 returns on the two market indices, the 12 difference in returns is not statistically 13 significant. So I would conclude that, as 14 judged by the marketplace in terms of the 15 variability of returns, the US utilities are 16 comparable to the publicly traded Canadian 17 utilities. 18 (9:30 a.m.) 19 KELLY, Q.C.: 20 Q. Now Dr. Booth comes to a recommended return of 21 7.5 percent, applying his CAPM methodology. 22 We've talked a little bit about that already. 23 I'd like you to address the components in Dr. 24 Booth's analysis and have you comment on that. 25 DR. VANDER WEIDE:
Page 22	Page 24
1 primarily focused on regulated activities, but 2 in addition -- and by primarily, I mean more 3 than 80 percent of their assets are devoted to 4 regulated activities. But in addition, they 5 have a wide variety of cost adjustment and 6 rate stabilization mechanisms and that's not 7 only from my general experience but also from 8 -- by comparing their bond ratings, because 9 bond ratings include an analysis of the 10 regulatory protections that the companies 11 have, and as I've suggested, the bond ratings 12 for my comparable groups of utilities are 13 approximately the same as the Canadian utility 14 bond ratings. 15 KELLY, Q.C.: 16 Q. Okay. Now let's have our next discussion 17 about the relative riskiness of US utilities 18 versus Canadian utilities. We talked about 19 the financial markets. How do the utilities 20 compare between Canada and the United States? 21 Have you looked at that issue? 22 DR. VANDER WEIDE: 23 A. Yes. The best way to assess risk is not by 24 just looking at individual items, such as 25 whether you have a weather normalization	1 A. Yes. Dr. Booth uses a risk free rate of three 2 percent and a BETA in the range of .45 to .55 3 and a risk premium on the market in the range 4 five to six percent and he arrives at CAPM 5 results in the range 5.75 to 6.8 percent, 6 including a 50 basis point adjustment for 7 financial flexibility. His results prior to 8 that were lower. To his 5.75 to 6.8 percent 9 CAPM results, Dr. Booth adds a 40 basis point 10 premium to reflect the higher average credit 11 spreads between corporate bonds and government 12 bonds and a 80 basis point risk premium to 13 reflect the impact of what he calls Operation 14 Twist, and which is commonly called Operation 15 Twist, which were efforts by the US and 16 Canadian monetary authorities to reduce 17 government interest rates. 18 KELLY, Q.C.: 19 Q. How do you interpret these adjustments, in 20 particular this 120 basis point adjustment for 21 these factors you just mentioned? 22 DR. VANDER WEIDE: 23 A. I interpret Dr. Booth's 120 basis point 24 additional risk premium to his CAPM results as 25 an implicit admission that the risk premium

Page 25	Page 27
1 tends to increase when interest rates come 2 down. Since we're in a low interest rate 3 environment right now, Dr. Booth has found 4 that his CAPM results are too low, so he's 5 added a 120 basis point risk premium 6 suggesting that the actual risk premium today, 7 in his opinion, is higher in this low interest 8 rate environment than it was previously. 9 KELLY, Q.C.: 10 Q. Now does Dr. Booth also report on a DCF, 11 discounted cash flow, analysis that he does on 12 utilities? 13 DR. VANDER WEIDE: 14 A. Yes. Dr. Booth reports DCF results for the 15 S&P electric and natural gas utilities based 16 on composite data for the S&P electric and S&P 17 natural gas utility industries. 18 KELLY, Q.C.: 19 Q. Okay. Can you explain the results that he 20 arrives at and get you to comment on those? 21 DR. VANDER WEIDE: 22 A. Yes. Dr. Booth's results are -- based on the 23 DCF, are significantly higher than his results 24 for the CAPM. For example, for his electric 25 utilities, he obtains a median DCF result of	1 considerably higher than his CAPM results, 2 underestimates Newfoundland Power's cost of 3 equity. 4 KELLY, Q.C.: 5 Q. Okay. Can I get you finally then to comment 6 on Mr. MacDonald's approach that he takes, the 7 test he does, and get you to comment on his 8 conclusions? 9 DR. VANDER WEIDE: 10 A. Yes. Mr. MacDonald applies three cost of 11 equity methods to arrive at his recommended 12 8.91 percent cost of equity on a 45 percent 13 equity ratio, and his three methods are the 14 capital asset pricing model, the discounted 15 cash flow and the equity risk premium. His 16 three results: for the CAPM, he gets a result 17 of 6.84 percent; for his DCF, he gets a result 18 of 9.63 percent; and for this risk premium, he 19 gets a result of 10.26 percent. I agree with 20 Dr. -- Mr. MacDonald then gives equal weight 21 to each of these three results to arrive at 22 his 8.91 percent ROE recommendation. 23 KELLY, Q.C.: 24 Q. Do you agree with the decision to give equal 25 weight?
Page 26	Page 28
1 8.73 percent prior to adding a 50 basis point 2 adjustment for financial flexibility, and that 3 would correspond to a 9.23 percent after 4 adjusting for financial -- after adding an 5 adjustment for financial flexibility. This 6 result is not only higher than his CAPM result 7 by 173 basis point or CAPM recommendation of 8 seven and a half percent, but on the other 9 hand, it's significantly less than the allowed 10 rates of return on equity for US utilities. 11 Specifically, he begins in 1993 and goes 12 through 2011 and for his electric utilities in 13 every single year his DCF result is 14 significantly less than the allowed rate of 15 return for US utilities in those years, and 16 overall, his 8.73 result prior to this 50 17 basis point cost adjustment is less than the 9 18 -- 10.94 percent average allowed ROE for US 19 utilities during this period. 20 KELLY, Q.C.: 21 Q. What conclusion do you draw from the fact that 22 it is -- that the result is less than the 23 returns? 24 DR. VANDER WEIDE: 25 A. I conclude that even his DCF result, which is	1 DR. VANDER WEIDE: 2 A. No. For the reasons that I've suggested, I 3 feel that his risk premium and DCF results are 4 quite reasonable, but his CAPM result of 6.84 5 percent significantly underestimates 6 Newfoundland Power's cost of equity because of 7 the evidence that I've provided that the CAPM 8 does not work well for both Canadian and US 9 utilities. If he had given weight only to his 10 DCF and risk premium results, he would have 11 obtained results that were very much closer to 12 my recommended ROE. 13 KELLY, Q.C.: 14 Q. Dr. Vander Weide, does that conclude your 15 testimony? 16 DR. VANDER WEIDE: 17 A. Yes, it does. 18 KELLY, Q.C.: 19 Q. Thank you very much. 20 MR. JOHNSON: 21 Q. Good morning again, Dr. Vander Weide. 22 DR. VANDER WEIDE: 23 A. Good morning. 24 MR. JOHNSON: 25 Q. If I could direct your attention to page 45 of

Page 29	Page 31
1 your report where you set out in Table 3 the 2 summary of your cost of equity results? 3 DR. VANDER WEIDE: 4 A. Yes. 5 MR. JOHNSON: 6 Q. Dr. Vander Weide, there you have your DCF or 7 your discounted cash flow model which is based 8 solely on your United States samples. Is that 9 correct? 10 DR. VANDER WEIDE: 11 A. Yes. 12 MR. JOHNSON: 13 Q. And that gives you the 10.2 percent? 14 DR. VANDER WEIDE: 15 A. That's correct. 16 MR. JOHNSON: 17 Q. And your Ex Post Risk Premium, that is -- what 18 that was really was what Ms. McShane talked 19 about in terms of the historic utility 20 approach, correct? That's another name for 21 it? 22 DR. VANDER WEIDE: 23 A. I wasn't here when she used those words. I've 24 -- and it is based on historical data and in 25 this case, it's historical data for Canadian	1 DR. VANDER WEIDE: 2 A. Yes. 3 MR. JOHNSON: 4 Q. Okay. Now in terms of weighting, the 5 weighting that you apply to your three, do you 6 weight your three equally or not? 7 DR. VANDER WEIDE: 8 A. Yes, I do. 9 MR. JOHNSON: 10 Q. So each gets a third weight and you add up to 11 10.4? Is that correct? 12 DR. VANDER WEIDE: 13 A. Yes. 14 MR. JOHNSON: 15 Q. So essentially then, would it be fair to say 16 that two-thirds of your results were United 17 States based? 18 DR. VANDER WEIDE: 19 A. Yes, it would. 20 MR. JOHNSON: 21 Q. And it would be fair to say that two-thirds of 22 your results are discounted cash flow based? 23 DR. VANDER WEIDE: 24 A. I don't believe that would be a fair 25 characterization. They both -- the first one,
Page 30	Page 32
1 utilities. 2 MR. JOHNSON: 3 Q. Did you not read the transcript of when Ms. 4 McShane testified in this proceeding? 5 DR. VANDER WEIDE: 6 A. No, I did not. 7 MR. JOHNSON: 8 Q. Okay. She said that your Ex Post Risk Premium 9 was what she calls historic utility. 10 DR. VANDER WEIDE: 11 A. I'll accept that. 12 MR. JOHNSON: 13 Q. Okay. And that is entirely based on the 14 Canadian historic returns of the BMO and the 15 TSX utility index? Is that right? 16 DR. VANDER WEIDE: 17 A. Yes. 18 MR. JOHNSON: 19 Q. Okay. Now, the Ex Ante, that's DCF based 20 again, right? 21 DR. VANDER WEIDE: 22 A. That's correct. 23 MR. JOHNSON: 24 Q. And that's based entirely on your United 25 States samples?	1 the discounted cash flow, is certainly what it 2 says, discounted cash flow. The Ex Ante Risk 3 Premium, although it uses a discounted cash 4 flow model to estimate the risk premium, to 5 say it's DCF based is not a fair 6 characterization of what it does. 7 MR. JOHNSON: 8 Q. Well, what is it based in if it's not - 9 DR. VANDER WEIDE: 10 A. I wasn't finished with my answer yet. 11 MR. JOHNSON: 12 Q. Sure, go ahead. 13 DR. VANDER WEIDE: 14 A. It looks at the risk premium over many months 15 since the late 1990s and compares that risk 16 premium to the level of interest rates at that 17 point -- at each of those points in time, and 18 looks at whether the risk premium increases or 19 decreases as interest rates go down and it 20 demonstrates that the risk premium increases 21 when interest rates go down and thus it's 22 essentially a -- it's considerably different 23 than a straight discounted cash flow method. 24 MR. JOHNSON: 25 Q. Well, it employs the discounted cash flow

Page 33	Page 35
1 method, does it not? 2 DR. VANDER WEIDE: 3 A. It employs it as one part of the process, but 4 it adds considerable information to that 5 estimate as it evolves over time. 6 MR. JOHNSON: 7 Q. And in any event, it is entirely based on your 8 United States samples, right? 9 DR. VANDER WEIDE: 10 A. Yes. 11 MR. JOHNSON: 12 Q. Now, in terms of the Ex Post or what Ms. 13 McShane calls the historic method, that 14 produces a result in your Table 3 of 9.9 15 percent, which would be the lowest of the 16 three that are produced, and your other two 17 approaches, being your United States data 18 based approaches of DCF and Ex Ante, they 19 average out, do they not, to be about 10.6 or 20 10.65? Would that be correct? 21 DR. VANDER WEIDE: 22 A. I haven't calculated the average. I would 23 assume that it would be about -- looks to me 24 like a 10.5. 25 MR. JOHNSON:	1 these three results. 2 MR. JOHNSON: 3 Q. Yes, and you've said that, but my proposition 4 to you was that you are undeniably using US 5 data in both discounted cash flow and your Ex 6 Ante Risk Premium. Isn't that right? 7 DR. VANDER WEIDE: 8 A. Yes. 9 MR. JOHNSON: 10 Q. Right. And the result of those two tests, 11 when you average them, produces a cost of 12 equity result that is 70 basis points higher 13 than that produced by your using only Canada 14 data. That's correct too, is it not? 15 DR. VANDER WEIDE: 16 A. That's correct as a factual matter, but if one 17 is going to interpret that difference, I don't 18 believe one can draw any significant 19 conclusions from that difference because the 20 difference reflects only the variability in 21 results that one obtains from any one method. 22 It doesn't reflect differences in the risk of 23 Canadian utilities versus US utilities. 24 MR. JOHNSON: 25 Q. And that position of yours is based entirely
Page 34	Page 36
1 Q. Would you not add your 10.2 to your 11.1, 2 divide it by two? 3 DR. VANDER WEIDE: 4 A. Oh, I'm sorry, I was looking at the 9.9. 5 Okay, 10.2 to 11.1, yeah, okay, 10.6 to 10.65. 6 MR. JOHNSON: 7 Q. Yes, okay. So your two US data based methods 8 produce a cost of equity result that is 70 9 basis points higher than that produced by the 10 test using only Canadian data, correct? 11 DR. VANDER WEIDE: 12 A. Yes, but I wouldn't relate that to the use of 13 US data versus Canadian data at all. Each of 14 these are estimates of the cost of equity. As 15 I've suggested, I believe that the US 16 utilities are comparable in risk to the 17 Canadian utilities. There are only two 18 Canadian utility companies that -- publicly 19 traded Canadian companies that have a 20 significant percentage of assets devoted to 21 regulated utility operations. 22 MR. JOHNSON: 23 Q. Dr. Vander Weide - 24 DR. VANDER WEIDE: 25 A. And I believe that one should equally weight	1 on the premise that there are no differences 2 between a Canadian utility and a United States 3 utility? 4 DR. VANDER WEIDE: 5 A. No, that's absolutely incorrect. There are 6 differences, but in terms of total risk, 7 there's not any difference other than the fact 8 that Canadian utilities have higher financial 9 risk than US utilities. 10 MR. JOHNSON: 11 Q. Would you regard a 70 basis point spread as 12 being material? 13 DR. VANDER WEIDE: 14 A. If one were to draw a conclusion that a 70 15 basis point difference, it might be material. 16 One would have to consider the context. If 17 one is looking at several methods to estimate 18 the cost of equity for the same or comparable 19 risk utilities, then it's not unusual to 20 obtain a 70 basis point spread in the methods 21 that are used to estimate the cost of equity. 22 For example, Dr. Booth obtains CAPM results in 23 the range of five something to 6.80 and he 24 gets DCF results that are over nine. That's a 25 much larger spread than the results reported

1 here.
 2 (9:45 a.m.)
 3 MR. JOHNSON:
 4 Q. Yes, but my question to you is whether a 70
 5 basis point spread is material.
 6 DR. VANDER WEIDE:
 7 A. And I'm suggesting no, not in the context in
 8 which I'm using it here to estimate the cost
 9 of equity for comparable risk utilities.
 10 MR. JOHNSON:
 11 Q. Now, Dr. Vander Weide, let us look at your DCF
 12 estimates a little more closely. And I take
 13 it the DCF approach is the approach that is
 14 most widely used in the United States before
 15 regulatory proceedings. Is that correct?
 16 DR. VANDER WEIDE:
 17 A. Yes, it is.
 18 MR. JOHNSON:
 19 Q. It gets what amount of the weight typically,
 20 in your testimony in the United States, Dr.
 21 Vander Weide?
 22 DR. VANDER WEIDE:
 23 A. In my testimony, it would -- I have never
 24 calculated numerical value for that weight. I
 25 would say approximately it's about a one-third

1 MR. JOHNSON:
 2 Q. Right. And when you say greater weight,
 3 greater than weight that they would give to
 4 what?
 5 DR. VANDER WEIDE:
 6 A. Than -- well, at the present time, US
 7 regulatory commissions are giving very little
 8 weight to the CAPM, as judged by the fact that
 9 the average allowed returns are in the range
 10 10 to 10.5 and the CAPM is producing results
 11 in the range of eight to eight and a half.
 12 They obviously give very little weight to the
 13 CAPM.
 14 MR. JOHNSON:
 15 Q. And so there -
 16 DR. VANDER WEIDE:
 17 A. But, they give weight to both risk premium
 18 results and DCF results and those numbers are
 19 used primarily to arrive at the 10 to 10 and a
 20 half percent allowed returns.
 21 MR. JOHNSON:
 22 Q. And of the -- you indicated they're giving
 23 weight to DCF and the risk premium results and
 24 the risk premium results are derived through
 25 DCF?

1 weight.
 2 MR. JOHNSON:
 3 Q. In your testimony?
 4 DR. VANDER WEIDE:
 5 A. Yes.
 6 MR. JOHNSON:
 7 Q. But it's two-thirds -- well, you quibble with
 8 the fact that your Ex Ante is DCF based, so
 9 you're just saying you just view your
 10 weighting on DCF as being a third?
 11 DR. VANDER WEIDE:
 12 A. Yes.
 13 MR. JOHNSON:
 14 Q. In this proceeding?
 15 DR. VANDER WEIDE:
 16 A. Yes.
 17 MR. JOHNSON:
 18 Q. Okay. In the United States generally, in
 19 terms of your experience before regulatory
 20 boards there, they would place weight on DCF
 21 method predominantly, would they?
 22 DR. VANDER WEIDE:
 23 A. They would -- generally in the US, the
 24 regulatory commissions give greater weight to
 25 the DCF than to other cost of equity methods.

1 DR. VANDER WEIDE:
 2 A. No. Sometimes, fairly frequently, they're
 3 derived through historical risk premium
 4 results as well and I think, as many utility
 5 regulators, they also look -- and sometimes
 6 they look at risk premiums related to allowed
 7 rates of return. That is, they look at
 8 allowed rates of return since maybe the mid
 9 1980s, which is about the longest period of
 10 time which that data is available, and they
 11 compare it to interest rates to get an allowed
 12 risk premium, if you will, and then just like
 13 I do with the DCF, they look at the
 14 statistical relationship between the allowed
 15 risk premium and the interest rate, and they
 16 find that when interest rates go down, the
 17 allowed risk premium tends to go up, and so
 18 they use the statistical relationship found
 19 through a regression analysis, which is just
 20 exactly what I've done with my DCF -- with my
 21 Ex Ante Risk Premium and they use that to
 22 forecast a required risk premium based on
 23 allowed returns and then they add that to a
 24 current or forecasted interest rate to develop
 25 a cost of equity.

Page 41	Page 43
1 MR. JOHNSON: 2 Q. How about comparable earnings? Are they using 3 that down there? 4 DR. VANDER WEIDE: 5 A. I have seen comparable earnings used in 6 witness testimonies, but I don't see much 7 weight assigned to comparable earnings. 8 MR. JOHNSON: 9 Q. Do you use it? 10 DR. VANDER WEIDE: 11 A. I do not present evidence on comparable 12 earnings. I note however that there has 13 always been a disconnect between financial 14 theory and regulatory practice and that 15 financial theory suggests that once you'd 16 calculate the cost of equity in the 17 marketplace and apply it to a capital 18 structure, that's a market value capital 19 structure, that's a capital structure based on 20 the market values of equity and the market 21 values of debt, and that capital structure 22 generally has a much higher equity ratio than 23 the book values of equity ratio. The 24 justification for comparable earnings are that 25 it's inconsistent to apply a market base cost	1 A. I can't recall. It's been a long time though, 2 I will say that. I would not be able to put a 3 number on it. 4 MR. JOHNSON: 5 Q. Now, have you filed testimony recently in the 6 United States? And if you have, would your 7 results on cost of equity be like we have here 8 and as you've presented, except for the 9 Canadian utility inputs that you use for Ex 10 Post Risk Premium approach? 11 DR. VANDER WEIDE: 12 A. Yes. 13 MR. JOHNSON: 14 Q. So we would be looking at the same number? If 15 you were looking at the results without the 16 Canadian numbers, what would they be? 17 DR. VANDER WEIDE: 18 A. They would be approximately the same. Of 19 course there's differences in period of time 20 when it's done, but my results would be 21 approximately the same as here. 22 MR. JOHNSON: 23 Q. So it would be approximately 10.6 then, 10.65? 24 DR. VANDER WEIDE: 25 A. Well, no, I would use the Ex Post Risk Premium
Page 42	Page 44
1 of equity to a book value capital structure. 2 Although everybody recognizes that 3 inconsistency, many times it's done anyway and 4 so that's what I tend to do, but it is 5 inconsistent and that's what the comparable 6 earnings method is designed to do is to adjust 7 for that inconsistency by applying a -- 8 recognizing that the capital structure is 9 going to be book value based in regulatory 10 practice, looking at book rates of return on 11 equity and comparing the two. 12 MR. JOHNSON: 13 Q. So in a long roundabout way, you do not use 14 comparable earnings testimony. When is the 15 last time you used it, if you have? 16 DR. VANDER WEIDE: 17 A. I can't -- I don't -- I can't recall when the 18 last time is. 19 MR. JOHNSON: 20 Q. Within the last five years? 21 DR. VANDER WEIDE: 22 A. No. 23 MR. JOHNSON: 24 Q. Ten? 25 DR. VANDER WEIDE:	1 applied to US utilities and the discounted 2 cash flow and the Ex Ante Risk Premium and 3 depending on what month or what time that I 4 did that test, it would be a result that's 5 similar to what I'm -- to my 10.4 or 10.5, 6 10.6, in that range. 7 MR. JOHNSON: 8 Q. Dr. Vander Weide, could I ask you to undertake 9 to file your last case in the United States, 10 including all your written testimony, where 11 you set out a summary of your cost of equity 12 results? Could you undertake to do that for 13 us? 14 DR. VANDER WEIDE: 15 A. Yes. 16 MR. JOHNSON: 17 Q. Thank you. Now - 18 KELLY, Q.C.: 19 Q. Can I just ask for clarification? Do you want 20 the whole testimony or just the summary of the 21 results? 22 MR. JOHNSON: 23 Q. The whole testimony. Dr. Vander Weide, in 24 terms of your straight on discounted cash flow 25 test that results in 10.2, I think we have to

Page 45	Page 47
1 look at your Exhibit 6 and 7 for that. So 2 Exhibit 6 gives a summary of discounted cash 3 flow analysis for comprehensive group of US 4 utilities, which we'll come to, and Exhibit 7 5 gives your summary of discounted cash flow 6 analysis for US utilities with mostly 7 regulated assets and an S&P bond rating equal 8 to or greater than BBB. Now Dr. Vander Weide, 9 you might recall in the request for 10 information process that we had to embark on 11 in this case, that we asked you to provide, in 12 relation to your United States DCF estimates 13 at pages 30 to 32 of your report, for -- what 14 we asked you, and there's no need to go to 32, 15 we asked you to provide, in CA-NP-267, the 16 following: for each firm in Exhibit 6 - 17 KELLY, Q.C.: 18 Q. Just wait until - 19 MR. JOHNSON: 20 Q. Okay. Part C was -- do you have that there, 21 Doctor? 22 DR. VANDER WEIDE: 23 A. Yes, it's hidden on my screen right now. If 24 you could put it up a little bit? Okay. 25 MR. JOHNSON:	1 future growth expectations. And Dr. Vander 2 Weide's studies indicate that analyst EPS or 3 earnings per share growth forecast are the 4 best proxies for investors future growth 5 expectations. 6 Now, so you didn't examine the annual 7 dividend and earnings per share data for your 8 proxy companies since 1990, as we had asked 9 for some information from you. And you know, 10 it strikes us, Dr. Vander Weide, that you were 11 simply asked for the data so we could assess 12 and the Board could assess in its 13 deliberations whether the historic record of 14 whether or not your sample of utilities has 15 been able to grow their dividends at the same 16 rate as GDP or more or less would have been 17 relevant to know because otherwise how would 18 the Board be able to determine whether the 19 forecasts are optimistic or not. That's what 20 we were driving at with the question. And so, 21 do you have any suggestion as to how, in the 22 absence of knowing whether your companies 23 actually met these expectations, whether we 24 can say it was doable or not? 25 (10:00 a.m.)
Page 46	Page 48
1 Q. Okay. And we referenced the United States DCF 2 estimates at pages 30 and 32. 3 DR. VANDER WEIDE: 4 A. Right. 5 MR. JOHNSON: 6 Q. And Part C of the question was: "for each firm 7 in Exhibit 6, please provide us the past five- 8 year growth experience and compare it to the 9 forecast five-year growth forecast." And 10 then, we asked "please provide the annual 11 dividend and earnings per share for each firm 12 in Exhibit 6 from 1990 or the latest period 13 available." And your answer to those requests 14 for information was that you did not examine 15 historical dividend growth data for -- "Dr. 16 Vander Weide did not examine historical 17 dividend growth data for his proxy companies," 18 because you state the DCF model requires 19 estimates of investors' future growth 20 expectations. 21 And then Part D indicates for the 22 information that we asked there that you did 23 not examine historical dividend growth data 24 for his proxy companies, again because you say 25 the DCF model requires estimates of investors'	1 DR. VANDER WEIDE: 2 A. Yes, you could go to publicly available 3 sources of information and gather the data 4 yourself. 5 MR. JOHNSON: 6 Q. Were you here when we put to Ms. McShane her 7 answer from the 2011 Alberta Utilities 8 Commission hearing, that the average compound 9 dividend growth rate for her sample of US 10 utilities was 2.7 percent? 11 DR. VANDER WEIDE: 12 A. No, I wasn't. 13 MR. JOHNSON: 14 Q. Did you read it in the transcript? 15 DR. VANDER WEIDE: 16 A. No, I didn't read the transcript of her cross. 17 MR. JOHNSON: 18 Q. Okay. Ms. McShane provided - we put to Ms. 19 McShane a document that she provided in answer 20 at the AUC hearing, which showed that the 21 average compound divided growth rate for her 22 sample of US utilities from that proceeding 23 was 2.7 percent, which was markedly below what 24 the GDP growth rate had been over the period 25 from, I believe it was 1990 to 2010. So

Page 49	Page 51
1 you're not familiar with that? 2 DR. VANDER WEIDE: 3 A. No. 4 MR. JOHNSON: 5 Q. Okay. Perhaps we could bring it up, the AUC 6 document. 7 MS. GLYNN: 8 Q. The 2011? 9 MR. JOHNSON: 10 Q. Yes. 11 MS. GLYNN: 12 Q. So that would be Information Item #9. 13 MR. JOHNSON: 14 Q. Thank you. I think we're referring to the 15 cross aid. 16 MS. GLYNN: 17 Q. Oh, sorry. 18 MR. JOHNSON: 19 Q. That wasn't a cross aid, but the - yeah, yeah. 20 That was the IR from the Alberta proceeding. 21 MR. HAYES: 22 Q. Do you want the generic cost of capital 23 decision? 24 MR. JOHNSON: 25 Q. No, it was her IR reply in the AUC hearing,	1 DR. VANDER WEIDE: 2 A. Yes. 3 MR. JOHNSON: 4 Q. And in this IR, you'll see the reference is 5 analyst growth estimates. That's particular 6 pages of her report in Schedule 13, and the 7 question that was asked that I want to bring 8 your attention to to fill in the context is a 9 question, Part I, where the Canadian 10 Association of Petroleum Producers wanted Ms. 11 McShane to provide a table of the average 12 arithmetic and compound growth rates for 13 dividend, earnings, and book value per share 14 for each utility in H, and we have a list of 15 them over at the end, since 1990, and compare 16 these with the same growth rate for US GDP and 17 discuss in detail whether these utilities have 18 grown their dividends, earnings, and book 19 values at the GDP growth rate over the last 20 20 years, and the chart at the end of the 21 document, or the table, I should say, at the 22 end of the document is what we addressed on 23 cross-examination with Ms. McShane. I'm 24 looking for the US ones for a second. 25 DR. VANDER WEIDE:
Page 50	Page 52
1 and remember you asked us to - 2 KELLY, Q.C.: 3 Q. Oh, I see, yeah. 4 MR. JOHNSON: 5 Q. Yeah. 6 MS. GLYNN: 7 Q. That's Undertaking #7. 8 MR. JOHNSON: 9 Q. #7. 10 MS. GLYNN: 11 Q. I think everybody has the hard copy before 12 them. 13 MR. JOHNSON: 14 Q. Okay, all right. Dr. Vander Weide, what this 15 document is, first of all, is an IR request 16 from CAPP, I think it's the Canadian 17 Association of Petroleum Producers, to Ms. 18 McShane in the 2011 generic cost of capital 19 proceeding before the Alberta Utilities 20 Commission. I don't know if you testified in 21 that one or not, did you? 22 DR. VANDER WEIDE: 23 A. Not in the 2011, no. 24 MR. JOHNSON: 25 Q. No, 2009, I believe you did.	1 A. This is the last page of the - 2 MR. JOHNSON: 3 Q. No, it's the CAPP MsShane ROE 21I, Attachment 4 1. It looks like this. 5 DR. VANDER WEIDE: 6 A. Yes, I believe I'm looking at the same thing. 7 MR. JOHNSON: 8 Q. Okay, and it has Consolidated Edison, New 9 Jersey Resources, Northwest - 10 DR. VANDER WEIDE: 11 A. Oh, I was looking at one like that for 12 Canadian utilities. 13 MR. JOHNSON: 14 Q. Right. 15 DR. VANDER WEIDE: 16 A. Okay, 1990 to 2010? 17 MR. JOHNSON: 18 Q. Yes, and just take a moment to familiarize 19 yourself with it. 20 DR. VANDER WEIDE: 21 A. Yes. 22 MR. JOHNSON: 23 Q. You're familiar with this attachment, right? 24 DR. VANDER WEIDE: 25 A. No.

Page 53	Page 55
1 MR. JOHNSON: 2 Q. Were you not examined on this in December? 3 DR. VANDER WEIDE: 4 A. I might have been, but I don't recall it. 5 MR. JOHNSON: 6 Q. You were in BC in December testifying before 7 the BC Utilities Commission? 8 DR. VANDER WEIDE: 9 A. Yes. 10 MR. JOHNSON: 11 Q. You saw it then. Dr. Vander Weide, this 12 attachment, as you can see, was put to Ms. 13 McShane with a view to getting at whether the 14 compound dividend growth rate for her sample 15 of US utilities, some of which are quite 16 common, I think five or six of these are 17 common to this proceeding, whether the 18 historical track record established that they 19 actually met those estimates for growth and as 20 you can see at the period, it goes from 1990 21 to 2010, and the arithmetic GDP growth rate 22 and compound GDP growth rate, 4.7 percent for 23 compound growth, and when we see the 24 arithmetic average growth for dividends per 25 share, the sample average was 2.7. So it	1 DR. VANDER WEIDE: 2 A. I think I gave you a way a little earlier. 3 You could get the data and take a look at it. 4 MR. JOHNSON: 5 Q. Okay. You don't have that data? 6 DR. VANDER WEIDE: 7 A. I don't have that data, no. 8 MR. JOHNSON: 9 Q. And I understand in terms of the DCF model 10 that you are putting forward, Mr. Vander 11 Weide, that you are using a constant growth 12 model? 13 DR. VANDER WEIDE: 14 A. Yes. 15 MR. JOHNSON: 16 Q. And you're familiar Ms. McShane used a 17 constant growth and then a tapered model to 18 the three stage, you're familiar with that? 19 DR. VANDER WEIDE: 20 A. Yes. 21 MR. JOHNSON: 22 Q. And so your constant growth model is on the 23 assumption that the short term analyst growth 24 forecast, they're going to go on in 25 perpetuity, correct?
Page 54	Page 56
1 didn't keep up with GDP over that 20 year 2 period, okay. Do you accept that? 3 DR. VANDER WEIDE: 4 A. I accept that's what it says, yes. 5 MR. JOHNSON: 6 Q. Okay, and as we understand it, the "D" in your 7 DCF formula, that actually does stands for 8 dividends, right? 9 DR. VANDER WEIDE: 10 A. The "D" stands for dividends, earnings, and 11 book value per share. Because of the 12 discounted cashflow model, they all grow at 13 the same rate. 14 MR. JOHNSON: 15 Q. Now, it was established through this document, 16 we put to you, Dr. Vander Weide, that Ms. 17 McShane's US sample, some of which are 18 populated by companies that she's using again 19 in this proceeding, simply were not able to 20 grow their dividends at the GDP growth rate 21 and, of course, you have not provided data to 22 this Board of Commissioners so that we can 23 determine whether your companies have actually 24 achieved compound GDP growth, so we've no way 25 to check that assertion, do we?	1 DR. VANDER WEIDE: 2 A. That's correct. 3 MR. JOHNSON: 4 Q. Right, and if we could go back now to your 5 Exhibit 6, and if we look at your companies, 6 the Great Plains Energy Company in Exhibit 6, 7 and I think that would be #13, say. This is 8 illustrative, I suppose, that Great Plains has 9 - that's some person, some analyst have 10 provided a growth forecast for Great Plains of 11 9.75 percent. That's right? 12 DR. VANDER WEIDE: 13 A. Yes. 14 MR. JOHNSON: 15 Q. Okay, and that growth forecast, that is meant 16 to be a perpetual number that just goes on out 17 and doesn't stop? 18 DR. VANDER WEIDE: 19 A. I'm not sure I understand the question. Are 20 you asking whether the analyst meant it to be 21 a - 22 MR. JOHNSON: 23 Q. In your DCF analysis, the one step in the DCF 24 analysis that you make, the assumption is that 25 all these growth rates go on forever?

Page 57	Page 59
1 DR. VANDER WEIDE: 2 A. Although that is true for the companies as a 3 whole, I don't necessarily assume that for 4 each company because, as I indicated earlier, 5 the DCF result for an individual company is 6 subject to a great deal of uncertainty. 7 MR. JOHNSON: 8 Q. Uh-hm. 9 DR. VANDER WEIDE: 10 A. The analyst may have - be optimistic or they 11 may be pessimistic, and it may not be what all 12 investors would consider to be a reasonable 13 growth forecast, but there are also growth 14 forecasts in here for Exelon, for instance, of 15 2.4 percent. I don't use the DCF result for 16 Great Plains as my estimated cost of equity. 17 I use the average result for all the companies 18 because again the growth rates are estimated 19 with uncertainty. Some may be high and some 20 may be low, but I believe the average is a 21 reasonable estimate of the cost of equity. 22 MR. JOHNSON: 23 Q. The document that we put to you that Ms. 24 McShane provided in that 2011 proceeding 25 showed the average - as I say, five or six of	1 growth rate, and the price has to be 2 consistent with the growth - with the 3 assumptions that are used to generate the 4 growth rate. I have done extensive studies, 5 and so have many others, that demonstrate that 6 stock prices respond or move in - are more 7 highly correlated in a statistical sense with 8 analyst's earnings growth forecasts than they 9 are with historical book value growth, 10 historical earnings growth, or historical 11 dividend growth, or even what's called 12 sometimes, and Dr. Booth calls it, a 13 sustainable growth rate. Stock prices, if 14 they're highly correlated with analyst's 15 growth forecast, that suggests that that's the 16 information that's included in stock prices. 17 They move in sync with analyst's growth rates, 18 and if analyst's growth rates are optimistic, 19 for whatever reason, then prices are likely to 20 be optimistic also in hindsight, and if one 21 says, well, we ought to use what in someone's 22 opinion is a reasonable growth rate as opposed 23 to what stock investors actually use, then to 24 be consistent, one ought to adjust the stock 25 price downward to reflect a reasonable
Page 58	Page 60
1 those companies are within her sample, but 2 their arithmetic average growth rate was just 3 2.7 percent. 4 (10:15 a.m.) 5 MR. HAYES: 6 Q. Excuse me, Mr. Johnson, we do have that 7 electronically now if you want to go through 8 it. Were you going back to it? 9 MR. JOHNSON: 10 Q. I wasn't going back to it, just raising the 11 point, but that document talked about 2.7 12 percent and in terms of actually what did, in 13 fact, happen over that long period. So does 14 that cause you any pause, Dr. Vander Weide, in 15 terms of putting forward a DCF recommendation 16 that's based on perpetual growth when we 17 actually have some evidence that a number of 18 these companies were not able to achieve more 19 than 2.7 percent, not even enough to achieve 20 the compound growth rate in the United States 21 of 4.7? Does that cause you any pause? 22 DR. VANDER WEIDE: 23 A. No. The DCF model requires the use of the 24 growth rates that are used by investors 25 because the DCF model requires a price and a	1 forecast of future growth. If investors are 2 using analyst's growth rates to make stock by 3 and sell decisions, and it's the analyst's 4 growth rates that are reflected in the stock 5 prices, then they have to be used in the DCF 6 model if one is going to use the same stock 7 prices. If you want to use some other growth 8 rate, then you ought to adjust the price 9 downward as well. 10 MR. JOHNSON: 11 Q. So would you accept if - and you choose not to 12 illustrate what a three stage or a constant 13 growth model would provide in your testimony. 14 So your practice is to use constant growth in 15 your evidence? 16 DR. VANDER WEIDE: 17 A. That's my general practice. Although I didn't 18 do it in this case, I have at times in the 19 past looked at the results of a three stage 20 DCF analysis to see whether those growth rates 21 are consistent with the stock prices and with 22 the risk assessments of the companies, and I 23 have found that many times, at least the times 24 I looked at it in the past, the results of a 25 multi-stage growth rate produces results that

Page 61	Page 63
1 are inconsistent with estimates of risk. 2 MR. JOHNSON: 3 Q. Would you accept that your number, your 4 constant number, would obviously fall, would 5 it not, if put to a sustained growth 6 methodology or the three stage, so that we'd 7 have a tapering effect? 8 DR. VANDER WEIDE: 9 A. Well, it would for - some companies would - 10 I'm just looking at the growth rates in 11 Exhibit 6. Obviously, for a company like 12 First Energy, there would be a tapering 13 effect. For a company like Exelon, the three 14 stage result would be higher because the GDP 15 growth rate would be higher than the short 16 term, than the analyst's growth rate. So some 17 of these would go up and some would go down, 18 but again the important thing is that these 19 are the growth rates that are included in the 20 stock prices and the two should be used 21 together, or if you're going to adjust the 22 growth rates, you ought to adjust the stock 23 prices. 24 MR. JOHNSON: 25 Q. Dr. Vander Weide, I believe, and Ms. McShane's	1 A. I believe they could. I haven't done that 2 calculation. 3 MR. JOHNSON: 4 Q. Okay. 5 DR. VANDER WEIDE: 6 A. And I don't believe that would be my estimate 7 of the cost of equity. 8 MR. JOHNSON: 9 Q. No, we understand that. If we look at Exhibit 10 6 again, and look at, say, the DCF estimate 11 for Consolidated Edison, company #7, which 12 gives a growth rate of 3.15 percent, and then 13 as we touched on already, we have company #13 14 being Great Plains at 9.75 percent, just for 15 illustrative purposes. I mean, Dr. Vander 16 Weide, do you think that this is a reasonable 17 range for DCF estimates that the actual 18 investor required return would vary by this 19 much, because we would be talking about an 20 investor - and these companies are supposed to 21 be more or less alike, according to you, I do 22 believe, the Consolidated Edison's model 23 result would be 7.4 percent, but Great Plains 24 would be 14.6 percent? 25 DR. VANDER WEIDE:
Page 62	Page 64
1 report which you would have read, indicated 2 that her discounted cashflow estimate 3 decreased from the constant model, which 4 produced about 9.4 percent. It went down to 5 9.1 percent using the three stage approach, so 6 a 30 basis point drop. Do you recall seeing 7 that in her report? 8 DR. VANDER WEIDE: 9 A. I skimmed through her report, but I didn't 10 read it seriously, and I don't recall what the 11 difference was. 12 MR. JOHNSON: 13 Q. Okay, take it, if you would, subject to check 14 that her report demonstrates that by employing 15 the constant - the constant model was 9.4 16 percent and using the three stage, it was 9.1, 17 so a 30 basis point spread. Would you expect 18 your numbers similarly to come down by about 19 that much if it was subjected to a constant 20 growth model? 21 DR. VANDER WEIDE: 22 A. I believe they could - 23 MR. JOHNSON: 24 Q. Or subjected to a three stage, I'm sorry. 25 DR. VANDER WEIDE:	1 A. First of all, I disagree with you in your 2 characterization that each of these single 3 results are an estimate of the cost of equity. 4 They're not. They're a DCF result for one 5 company. As I've already suggested, the 6 growth rates are estimated with some 7 uncertainty, and I don't believe that the DCF 8 result for one company provides a reliable 9 estimate of the cost of equity. Just like if 10 one were to apply the DCF result of the two 11 Canadian utilities that have a significant 12 percentage of assets devoted to regulated 13 operations, you wouldn't get a reasonable 14 estimate or a reliable estimate of the cost of 15 equity. You have to use a reasonably large 16 sample and take the average, and so I don't 17 use any - I don't believe that any of those 18 individual results are the cost of equity for 19 any one of those individual companies. I 20 would recommend the 10.3 for all of them 21 because that's the most reliable estimate for 22 the group of companies with comparable risk. 23 MR. JOHNSON: 24 Q. So Dr. Vander Weide, your Exhibit 6 doesn't 25 show your average for the companies, but I

Page 65	Page 67
1 take it that your average is about 5.2 2 percent, would you take that? That's the 3 average growth rate, I'm sorry. 4 DR. VANDER WEIDE: 5 A. I would take that, subject to check. 6 MR. JOHNSON: 7 Q. Okay, and your average growth rate for Exhibit 8 7 is 5.1 percent. Would you take that, 9 subject to check as well? 10 DR. VANDER WEIDE: 11 A. Yes. 12 MR. JOHNSON: 13 Q. Okay. Dr. Vander Weide, the sustainable 14 growth approach that Ms. McShane used, there 15 was evidence before this Board that indicated 16 that when her sample was used in relation to 17 the sustainable growth method, that her DCF 18 estimate dropped from the three stage again by 19 about 50 basis points using sustainable growth 20 for her United States utilities, because her 21 three stage number was 9.1, but when 22 sustainable growth was used, her number 23 dropped to 8.6 for her United States 24 utilities. Would you expect a similar drop in 25 terms of magnitude with your sample?	1 A. I have no idea whether it would or would not. 2 I don't think it's a reasonable way to 3 estimate the growth rate. 4 MR. JOHNSON: 5 Q. Let's turn to the Ex Post risk premium 6 results, and again if we could have the table 7 in front of us, it might be helpful, page 45. 8 Dr. Vander Weide, in terms of - just to circle 9 back for a moment. This type of constant 10 growth forecast model that you've used in this 11 case, you've similarly provided the same type 12 of model with the perpetual forecast before 13 the Alberta Board, did you not? 14 DR. VANDER WEIDE: 15 A. I believe I did. 16 MR. JOHNSON: 17 Q. And what did the Alberta Board indicate 18 regarding the proposition that there would be 19 - that the investor would expect those sorts 20 of growth rates going on into the future? Did 21 they accept the constant growth model in 2009? 22 DR. VANDER WEIDE: 23 A. I'm sorry, I'm a little confused. You started 24 me thinking about the Ex Post risk premium, 25 and I thought that your previous question was
Page 66	Page 68
1 DR. VANDER WEIDE: 2 A. I don't really have any idea what it would do. 3 I don't use the sustainable growth rate 4 because the sustainable growth rate, (1) is 5 circular, it involves a - let me define it, a 6 sustainable growth rate is based on 7 multiplying the rate of return on equity by 8 the retention ratio, and the rate of return on 9 equity is determined in the regulatory 10 process. So it's assumed that you know the 11 result of the regulatory process before you 12 estimate the growth rate, which is ridiculous 13 because the growth rate is going to be used to 14 estimate the cost of equity which would feed 15 back into the final result. So it's a 16 circular process, and the sustainable growth 17 rates do not - are not highly correlated with 18 stock prices as are the analyst's growth 19 rates. So I don't use the sustainable growth 20 rate to estimate the cost of equity. 21 MR. JOHNSON: 22 Q. And you - so you don't have a view as to 23 whether yours would drop if the sustainable 24 growth rate was employed on your samples? 25 DR. VANDER WEIDE:	1 about the Ex Post risk premium. 2 MR. JOHNSON: 3 Q. It was, and I just circled back, yeah. Before 4 going to the Ex Post risk premium result, I 5 just wanted to circle back to the 2009 before 6 the Alberta Board. I understood that the 7 Board was not prepared to accept growth rates 8 in excess of GDP. 9 DR. VANDER WEIDE: 10 A. I don't recall whether they did or did not. 11 MR. JOHNSON: 12 Q. Okay. Maybe I'll check that in the break. 13 Now going on then to the Ex Post risk premium 14 results, Dr. Vander Weide, we see - and we 15 should actually go to page 35 as opposed to 16 45, I'm sorry. We see here in Table 2 that 17 you are taking data both from Standards & 18 Poors TSX utilities index, and the BMO basket, 19 I think, is the way you expressed it, is that 20 right? 21 DR. VANDER WEIDE: 22 A. Yes. 23 MR. JOHNSON: 24 Q. And you're taking that information to come up 25 with the average stock returns over those two

Page 69	Page 71
1 periods, 1956 to 2011, in the case of the 2 Standard & Poors TSX utilities, and a shorter 3 period, from 1983 to 2011 in relation to the 4 small basket, and I understand in terms of the 5 bond yield, the average bond yield column, 6 that those bond yields are reported from the 7 Canadian Institute of Actuaries, that's where 8 that information comes from? 9 DR. VANDER WEIDE: 10 A. No, I don't think so. Let me look at that. 11 MR. JOHNSON: 12 Q. Okay. 13 DR. VANDER WEIDE: 14 A. In answer 100, I indicate that I use the 15 interest rate data and long term Canada bonds 16 reported by the Bank of Canada. 17 MR. JOHNSON: 18 Q. Okay. Now in this table, it appears that you 19 are deducting the bond yield from the average 20 stock return, and so over that lengthy period 21 from 1956 to 2011, you take the average stock 22 return of up around 12 percent and deduct the 23 average bond yield of 7, to come up with your 24 risk premium of 4.7, and that Standard and 25 Poors TSX utilities would be a larger group of	1 percent in terms of risk premium compared to 2 only 4.7 percent over the longer period of 3 1956 to 2011, and it strikes one as being a 4 large difference, four basis points - 4 5 percent more in terms of the risk premium over 6 that shorter period. Dr. Vander Weide, could 7 you - given the large difference, could you 8 offer the Board your insight as to why this Ex 9 Post risk premium over the last 30 years is so 10 large? 11 DR. VANDER WEIDE: 12 A. I don't think I have an explanation. I'm just 13 looking at the data as it exists. 14 (10:30 a.m.) 15 MR. JOHNSON: 16 Q. So you can offer no insight at all as to why 17 the risk premium over the last 30 years would 18 be nearly - close on double the previous risk 19 premium? 20 DR. VANDER WEIDE: 21 A. I have my doubts about the S & P/TSX utilities 22 because again they don't really - although 23 they're called utilities, they aren't really a 24 group of utilities and that raises some doubt, 25 but, no, I'm suggesting that these are the Ex
Page 70	Page 72
1 companies, I take it? 2 DR. VANDER WEIDE: 3 A. A larger group of companies, but not a larger 4 group of utilities. A smaller group of 5 utilities because there are - those are mostly 6 power companies. 7 MR. JOHNSON: 8 Q. Okay, and in terms of the smaller dataset in 9 terms of the smaller basket, 1983, you take an 10 average stock return of 16 percent, deduct the 11 average bond yield to come up with a risk 12 premium of 8.8 percent, and then essentially 13 you add the two risk premiums together, divide 14 it by two, and arrive at your 6.7 percent risk 15 premium. That's the mechanics of it? 16 DR. VANDER WEIDE: 17 A. Yes. 18 MR. JOHNSON: 19 Q. And you've weighted each of these periods 20 equally, I understand, Dr. Vander Weide? 21 DR. VANDER WEIDE: 22 A. Yes. 23 MR. JOHNSON: 24 Q. And, obviously, we see that the more recent 25 data from over the last 30 years is 8.8	1 Post results and I don't know why they would 2 be that much different. 3 MR. JOHNSON: 4 Q. But I understand they're not just Ex Post, 5 these are meant to be reasonable proxies for 6 the future, are they not? 7 DR. VANDER WEIDE: 8 A. They are meant to be a - well, they were used 9 to estimate the cost of equity, and so, yes, 10 they are meant to represent investor's 11 expectations of what a required risk premium 12 would be. 13 MR. JOHNSON: 14 Q. Okay, and were you here during the cross- 15 examination of Ms. McShane, Dr. Vander Weide? 16 DR. VANDER WEIDE: 17 A. Only for a very short time. 18 MR. JOHNSON: 19 Q. Were you here when she said that up until 20 2007, her historical utility risk premium or 21 your Ex Post risk premium, was based on her 22 subtracting returns from returns, and not 23 yields from returns? Were you here when she 24 stated that? 25 DR. VANDER WEIDE:

Page 73	Page 75
1 A. No, I was not. 2 MR. JOHNSON: 3 Q. She stated that up until 2007, what she would 4 actually do and she did before this Board in 5 2007, and previous to that in 2002, for that 6 matter, was that she would not subtract the 7 average bond yield from the average stock 8 return. She would not do that. In fact, up 9 until 2007 what she would do was she would 10 subtract returns from returns, okay, and did 11 you similarly used to use a different method 12 than this, and similar to what Ms. McShane 13 described? 14 DR. VANDER WEIDE: 15 A. To the best of my recall, when I have sought 16 to estimate the risk premium over the risk 17 free rate, which I'm doing here, I have always 18 - again I've been in 400 some cases, so I 19 can't guarantee it, but I believe that what 20 I've done is always used the bond yield when 21 I'm seeking to estimate the risk premium over 22 a risk free instrument, such as government 23 bonds, because the bond yield is the only 24 interest rate that's risk free over this 25 period of time. The return is highly risky.	1 the inference? 2 DR. VANDER WEIDE: 3 A. No, I didn't say there would be problems if 4 one used a shorter period of time. What I've 5 said is that if you're going to estimate a 6 risk premium over the interest rate - over the 7 risk free rate, one ought to use the yield on 8 the bonds because that's the only interest 9 rate that's risk free, and one also ought to 10 use the longest period of data available and 11 that's what I've done for the Canadian 12 utilities. 13 MR. JOHNSON: 14 Q. But you've put equal weight on the longer 15 period with the shorter period? 16 DR. VANDER WEIDE: 17 A. Yes, and I've explained why that is, because 18 the companies that have the longest period of 19 data are also not utilities, most of them are 20 power companies that have different risks than 21 utilities. 22 MR. JOHNSON: 23 Q. Were they power companies from the period 1956 24 to 1983? 25 DR. VANDER WEIDE:
Page 74	Page 76
1 However, if for other reasons - I'm not 2 looking at a risk free security. Then there 3 are times when I've looked at the bond 4 returns. 5 MR. JOHNSON: 6 Q. So we might see evidence of yours which would 7 be consistent with how Ms. McShane used to do 8 it, that's what you're saying? 9 DR. VANDER WEIDE: 10 A. If I were - well, consistent - not if I used 11 government securities, I would use the risk 12 free rate. If I were using utility bond 13 returns or looking at yields on utilities, I 14 might use bond returns, but I would also use a 15 longer period of time. I would use a period 16 of time from, say, the 1930s because there's a 17 longer period of data for utilities in the US. 18 My recall is that for utilities it makes no 19 difference whether you use bond returns or 20 bond yields from the period - for a very long 21 period of time. You get about the same 22 results one way or the other. 23 MR. JOHNSON: 24 Q. So I guess there would be problems then if you 25 used a shorter period of time. Would that be	1 A. I don't know exactly what companies were in 2 there from '56 to '83. I know that right now, 3 I give the individual companies in my 4 testimony and I show their mix of businesses 5 as well, and percent of regulated assets. 6 There could well have been a - I would assume 7 that there were a different set of companies, 8 just like the companies in the Standard & 9 Poors indices vary over time. As some 10 companies become appropriate and others are no 11 longer appropriate, I would assume these would 12 change as well. 13 MR. JOHNSON: 14 Q. So in terms of the yield on the long Canada 15 bond, Dr. Vander Weide, is the yield on the 16 long Canada bond the investor's expected rate 17 of return based on the expected cashflows of 18 the bond if held to maturity? 19 DR. VANDER WEIDE: 20 A. Yes. 21 MR. JOHNSON: 22 Q. Okay, and what would happen if investors do 23 not hold the bond to maturity and the interest 24 rates change? 25 DR. VANDER WEIDE:

Page 77	Page 79
1 A. They would experience capital gains and 2 losses, which because those capital gains and 3 losses are highly uncertain, would make those 4 risky investments in those bonds. 5 MR. JOHNSON: 6 Q. Okay. So let's suppose then that we look at 7 the return earned by bond investors over the 8 next year, okay. If interest rates change, 9 what happens if the interest rates increased? 10 DR. VANDER WEIDE: 11 A. They would experience a capital loss. 12 MR. JOHNSON: 13 Q. That would be because bond prices are falling? 14 DR. VANDER WEIDE: 15 A. Yes. 16 MR. JOHNSON: 17 Q. And then investors get lower returns than 18 expected. 19 DR. VANDER WEIDE: 20 A. Yes. 21 MR. JOHNSON: 22 Q. And on the other hand, again over the next 23 year if the interest rates decrease, bond 24 prices increase and then bond investors get 25 higher returns than expected?	1 were sky high? 2 DR. VANDER WEIDE: 3 A. Possibly, yes. 4 MR. JOHNSON: 5 Q. Yeah, and Dr. Booth has prepared a graph of 6 the long term Canada bond yields and this 7 would be one of the documents that we 8 indicated we were going to put to Dr. Vander 9 Weide. 10 MS. GLYNN: 11 Q. That would be Information Item #18. 12 MR. JOHNSON: 13 Q. Dr. Vander Weide, just to ask you, this long 14 term Canada bond, this column, this is similar 15 to what your exhibit was in the BCUC case in 16 December, right? 17 DR. VANDER WEIDE: 18 A. Yes. 19 MR. JOHNSON: 20 Q. That's right. Now Dr. Booth has provided us 21 with a graph which graphs the long Canada 22 yield from 1956 all the way up to 2011, and 23 you really see a graphic presentation of what 24 happened over that period with the long Canada 25 yield, obviously.
Page 78	Page 80
1 DR. VANDER WEIDE: 2 A. Yes. 3 MR. JOHNSON: 4 Q. If we look to Exhibit 8, Exhibit 8 shows the 5 experienced risk premiums on the Standard and 6 Poors/TSX Canadian utilities stock index over 7 the long period, 1956 to 2011, and I just draw 8 your attention to the yield long term Canada 9 bond column, Dr. Vander Weide, and do you see 10 anything remarkable in terms of the run up in 11 the long Canada bond yield back in the early 12 1980s in Canada? 13 DR. VANDER WEIDE: 14 A. What I see is the same thing that you see, is 15 that they went up. 16 MR. JOHNSON: 17 Q. And, I mean, as I see it, in 1981 the yield on 18 the long term Canadian bond, that's the 19 average yield, I take it, is 15.22 percent, is 20 that correct? 21 DR. VANDER WEIDE: 22 A. Yes. 23 MR. JOHNSON: 24 Q. But it would have been perhaps higher in 1981 25 during various periods when interest rates	1 DR. VANDER WEIDE: 2 A. Yes. 3 MR. JOHNSON: 4 Q. And as we see on that graph, Dr. Vander Weide, 5 the long Canada bonds peaked at that year, as 6 we noted up around - average year about 15.22 7 percent, and then they had been pretty much 8 declining ever since on that downward pattern 9 or slope, agreed? 10 DR. VANDER WEIDE: 11 A. I do. 12 (10:45 a.m.) 13 MR. JOHNSON: 14 Q. To the point that, as we're in here today, 15 they stand at about 2.5 percent or so? 16 DR. VANDER WEIDE: 17 A. Yes. 18 MR. JOHNSON: 19 Q. And so throughout this period, the one year 20 returns, the one year returns earned from long 21 Canada - from holding long Canada bonds, on 22 average, have been better than expected, would 23 that be fair? 24 DR. VANDER WEIDE: 25 A. Yes, I would say that's the case, and that's

Page 81	Page 83
1 why I would not use returns on long Canada 2 bonds because they weren't risk free, they 3 were highly risky. 4 MR. JOHNSON: 5 Q. Now on the next page of this document, this 6 document is nothing other than an 7 encapsulation of information taken from 8 Exhibits 8, 9, and 15 of your report, and as 9 well the long term Canada yield column, the 10 source for that is the Canadian Institute of 11 Actuaries, okay. You're familiar with this 12 document as well? 13 DR. VANDER WEIDE: 14 A. Yes. 15 MR. JOHNSON: 16 Q. Right, and you will see that what Dr. Booth 17 has added is he's also added, I believe, the 18 one year return on the long Canada bond 19 return. So we see the first column is 1956, 20 long term Canada yield, the utility return, 21 and then the bond return, and then the next 22 column was supposed to be what the TSX earned. 23 MS. GLYNN: 24 Q. Mr. Johnson, the Commissioners don't have the 25 hard copy there yet.	1 MR. JOHNSON: 2 Q. And - you have no difficulty. You're 3 confirming that this data is okay with you? 4 DR. VANDER WEIDE: 5 A. Well, I haven't checked it. I'm confirming 6 that I don't recall objecting to it in BC, but 7 I haven't checked the data on the - on the 8 TSX, for instance, I haven't checked it, but 9 I'm assuming for the purpose of cross- 10 examination that it is correct. 11 MR. JOHNSON: 12 Q. So you're prepared to accept it subject to 13 your checking it? 14 DR. VANDER WEIDE: 15 A. Yes. 16 MR. JOHNSON: 17 Q. Okay, and you will confirm that this similar 18 table was provided to you in December? 19 DR. VANDER WEIDE: 20 A. Yes. 21 MR. JOHNSON: 22 Q. Now what we've next done, Dr. Vander Weide, is 23 provided a further page which sets out - 24 MS. GLYNN: 25 Q. This one will be entered as Information Item #
Page 82	Page 84
1 MR. JOHNSON: 2 Q. Oh, I'm terribly sorry. 3 MS. GLYNN: 4 Q. That's okay. So that's entered as Information 5 Item #19. 6 MR. JOHNSON: 7 Q. So we have the years from 1956 onward, we have 8 the long term Canada yield in the next column, 9 the utility return, then the bond returns, 10 that bond return column is from the Canadian 11 Institute of Actuaries, and then what we have 12 is how the TSX did in terms of the return, and 13 then the BMO column, which only picks up in 14 1983, would be the - would equate basically to 15 the small basket, I believe, of utilities, 16 right? 17 DR. VANDER WEIDE: 18 A. Yes. 19 MR. JOHNSON: 20 Q. Okay. I think you were as well given this 21 data in British Columbia's, subject to check, 22 and you had no difficulty with the data 23 presented, right? 24 DR. VANDER WEIDE: 25 A. No.	1 20. 2 MR. JOHNSON: 3 Q. Thank you very much. This aid shows Table 2 4 taken from your report at page 35, and just 5 take a second to make sure that it's 6 consistent with your table. 7 DR. VANDER WEIDE: 8 A. With my table on what page again? 9 MR. JOHNSON: 10 Q. On page 35. 11 DR. VANDER WEIDE: 12 A. Okay. Yes. 13 MR. JOHNSON: 14 Q. And then what we've prepared is a revised 15 table - I shouldn't say "we", it's Dr. Booth 16 prepared a revised table where instead of 17 contrasting the average Ex Post return on the 18 utility index with the annual yield on the 19 long Canada bond, what we've done is compared 20 return with return, the way that Ms. McShane 21 used to do it up until 2007, and in this way, 22 Dr. Vander Weide, the impact of interest rate 23 declines in both the utility return and the 24 bond return can be seen. So first, can you 25 see that the utility return from 1956 is

Page 85	Page 87
1 exactly the same as in your table, as is the 2 BMO return from 1983, because it's the same 3 data, right? 4 DR. VANDER WEIDE: 5 A. Yes. 6 MR. JOHNSON: 7 Q. Okay. However, you see that the average bond 8 return is higher than the average bond yield 9 by about .63 percent. So comparing returns to 10 returns, the historic risk premium is not 4.7, 11 but 4.03 percent. Now I don't expect you, Dr. 12 Vander Weide, in light of your comments, to 13 accept this, but if there's any calculation 14 errors, let us know, okay. For the BMO time 15 period from 1983, the bond return is 11.10 16 percent because, as I understand it, this was 17 the period when interest rates really came 18 down over that period of time. So comparing 19 returns with returns, the utility risk premium 20 drops from your 8.8 percent up in your Table 2 21 down to 4.91 percent, according to these 22 calculations. Again I want to verify with you 23 the accuracy of the calculations. Can you 24 take a second to verify that? 25 KELLY, Q.C.:	1 utilities far exceeds the risk premium on the 2 composite. 3 MR. JOHNSON: 4 Q. But we're not talking about CAPM at the 5 moment. What we're doing is looking at - 6 we're looking at the risk premium using this 7 historic method, I thought. 8 DR. VANDER WEIDE: 9 A. And that's exactly what I was looking at when 10 I discussed the impact of it. 11 MR. JOHNSON: 12 Q. And then over the period 1983 to 2011, we see 13 for the TSX composite - so that's basically 30 14 years. We're seeing a stock return of 10 15 and a bond return on average - average out to 16 11 percent, which would indicate a negative 17 risk premium for the TSX composite. Do you 18 see what we're talking about there, Dr. Vander 19 Weide? 20 DR. VANDER WEIDE: 21 A. Yes. 22 MR. JOHNSON: 23 Q. And would it be - it's obviously not your 24 judgment, is it, that utilities since 1956 25 have been riskier than the TSX composite?
Page 86	Page 88
1 Q. That's not really a fair question. The 2 witness can take it, subject to check, but 3 asking the man to do the math in his head, 4 that's not appropriate. 5 MR. JOHNSON: 6 Q. Okay. Now you do not report on the TSX 7 composite index in your Table 2, but we've 8 added information on the TSX composite for the 9 purposes of the revised table, but that data 10 actually appears from your Exhibit 15, right, 11 the TSX return data? Just confirm. 12 DR. VANDER WEIDE: 13 A. Yes. 14 MR. JOHNSON: 15 Q. Okay. So over the period from 1956 to 2011, 16 the risk premium on the TSX composite was 2.57 17 percent, or basically about 1.5 percent less 18 than for the utilities, according to these 19 calculations, right? 20 DR. VANDER WEIDE: 21 A. Yes, to me that just - even though I don't 22 agree with using bond returns, that just 23 brings home once again the fact that the CAPM 24 doesn't apply to the Canadian market. Even 25 using bond returns, the risk premium on the	1 DR. VANDER WEIDE: 2 A. No, it's my judgment that the CAPM does not 3 apply to Canadian utilities. 4 MR. JOHNSON: 5 Q. But what specifically does this information 6 have to do with CAPM? I mean, we are putting 7 to you historic utilities in the fashion that 8 Ms. McShane used to do it before this Board as 9 she did in 2002, 2007, nothing about CAPM, 10 doesn't fall under CAPM, and we see that 11 looking at the historic risk premiums that 12 they appear not to be constant with what one 13 would consider the relative risk between 14 utilities and general companies on the TSX. 15 DR. VANDER WEIDE: 16 A. That in itself is a statement about the CAPM, 17 and that's why I drew the conclusion. If you 18 want to look at the relative risk of the 19 utilities to the composite, that's what the 20 CAPM does, and the CAPM, as Dr. Booth used it, 21 assumed that the beta was .5 and, in fact, 22 over the last 30 to 60 years, the utilities 23 had higher risk premiums than the composite, 24 which is absolutely contrary to the CAPM and 25 to a beta .5.

Page 89

Page 91

1 MR. JOHNSON:

2 Q. I guess we're at the break, Mr. Chairman, if
3 we could.

4 CHAIRMAN:

5 Q. Okay, we'll take a break until 11:30.

6 (RECESS - 10:58 a.m.)

7 (RESUME - 11:30 a.m.)

8 MR. JOHNSON:

9 Q. Dr. Vander Weide, still on the screen for
10 everybody to see, that over the period, 1983
11 to 2011, BMO utilities group, that basket, had
12 returns that averaged 16 percent, and over the
13 same period, the entire TSX composite had a
14 return of 10.6 in the revised Table 2, 10. 6
15 percent. Dr. Vander Weide, is it your
16 judgment that over this period the BMO
17 utilities warranted an additional 5.4 percent
18 premium over the entire stock market on the
19 TSX?

20 DR. VANDER WEIDE:

21 A. I'm not sure what you mean by warranted. This
22 is what, in fact, happened. I don't know now
23 to interpret whether they warranted it or not.

24 MR. JOHNSON:

25 Q. But it should be taken - it's your evidence

Page 90

Page 92

1 and your judgment that what transpired over
2 that period of time should guide the Board in
3 terms of its determination of what the future
4 utility risk premium would be?

5 DR. VANDER WEIDE:

6 A. Well, I think if you want to look at Canadian
7 utilities, this is the best evidence you have,
8 and this is a period that goes from 30 to 60
9 years. That's a very long period of time and
10 they were both increasing and decreasing
11 interest rates environments, including the
12 period '56 to 2011, and in both periods, not
13 just the period from '83 to the present, but
14 in the period from '56 to 2011, the TSX
15 utilities had a significantly higher risk
16 premium than the TSX composite. To me, the
17 way it should guide the Commission is that the
18 CAPM does not work for Canadian utilities.

19 MR. JOHNSON:

20 Q. But with all due respect, Dr. Vander Weide,
21 you have put forward a risk premium test based
22 on historic returns, okay, and Dr. Vander
23 Weide, as I understand it, correct me if I'm
24 wrong, but you put forward that analysis to
25 tell the Board what your view would be of the

1 risk premium going forward would be, correct?

2 DR. VANDER WEIDE:

3 A. This was one of my tests, what the cost of
4 equity should be for this company.

5 MR. JOHNSON:

6 Q. Right, and is it your professional judgment
7 that this Board should regard the risk
8 premiums that were achieved over the 1983 to
9 2011 period for these utilities as offering
10 guidance as to what they should determine the
11 risk premium is in the case of Newfoundland
12 Power?

13 DR. VANDER WEIDE:

14 A. In combination with the information on the
15 period, 1956 to 2011, yes.

16 MR. JOHNSON:

17 Q. Dr. Vander Weide, do you accept that utility
18 returns are sensitive to interest rates, and
19 that the higher returns on utility stocks have
20 been - have, in part, reflected declining
21 interest rates similar to the returns on
22 bonds?

23 DR. VANDER WEIDE:

24 A. I have not studied what caused those returns
25 to be what they were in the 1983 to 2011

1 period. I've reported what they are, and I
2 believe they would influence investors, but I
3 note that I also looked at the period 1956 to
4 2011, and there are some issues with that as
5 well because the TSX utilities are not pure
6 utilities, they're mostly power companies.
7 There are several utilities in there, but not
8 pure utilities for sure, and this is the best
9 evidence I have on required risk premiums for
10 Canadian utilities.

11 MR. JOHNSON:

12 Q. And these results that are produced by this
13 model, you don't exercise any further judgment
14 in terms of trying to understand what
15 happened, other than to report the number and
16 say this is the risk premium?

17 DR. VANDER WEIDE:

18 A. Well, what I don't do, I don't try to pick sub
19 periods. I take the longest period of time
20 for which there is data, and I do that for
21 both indices, 1956 to 2011, and 1983 to 2011,
22 and I think taking the average of those
23 provides a reasonable estimate of the cost of
24 equity, which when used in combination with my
25 other methods provides a reasonable estimate

Page 93	Page 95
1 of the required return for Newfoundland Power. 2 MR. JOHNSON: 3 Q. I indicated, Dr. Vander Weide, that I would - 4 in relation to our previous discussion about 5 analyst forecast, I wanted to actually bring 6 you to the passage that I was referring to 7 that I had in mind from the Alberta Utility 8 Commission, and that's the 2011 decision, if 9 we could bring it up, where the Alberta 10 Utility Commission referred to what their 11 feelings were about analyst forecasts as 12 testified to in 2009 before them. 13 MS. GLYNN: 14 Q. The 2009 decision? 15 MR. JOHNSON: 16 Q. 2011, Paragraph 86. 17 MS. GLYNN: 18 Q. For 2011, that's Information Item #9. 19 MR. JOHNSON: 20 Q. Okay, yeah, paragraph 86. 21 DR. VANDER WEIDE: 22 A. This was a 2011 one that was just up. 23 MR. HAYES: 24 Q. 2011? 25 MR. JOHNSON:	1 concerned with the potential upward bias in 2 analysts growth estimates". That's the 3 passage that I was bringing you to, and, in 4 fact, that 2009 case was one that you 5 participated in with Ms. McShane, correct? 6 DR. VANDER WEIDE: 7 A. Yes, it is, and I would note that there is 8 evidence that investors at least make 9 investment decisions based on the analysts 10 forecast in the sense that I described 11 earlier, that stock prices are highly 12 correlated with changes in analysts forecast 13 and they are not highly correlated with 14 changes in historical growth rates, such as 15 historical growth in dividends or historical 16 growth in earnings or book value. 17 MR. JOHNSON: 18 Q. So would you - do you share the observation 19 that as long as investors believe the 20 optimistic forecast, that they will price the 21 securities lower? 22 DR. VANDER WEIDE: 23 A. I'm sorry, I didn't hear that whole question. 24 MR. JOHNSON: 25 Q. Okay. Do you agree with the observation that
Page 94	Page 96
1 Q. Yes, that's correct, paragraph 86. 2 MR. HAYES: 3 Q. That's the one where the electronic copy 4 doesn't have the page. 5 MR. JOHNSON: 6 Q. Okay. I've got a copy here. Dr. Vander 7 Weide, if it would be okay, I would like to 8 read to you what they said at paragraph 86. 9 It states in paragraph 86, "In 2009, the 10 Commission expressed concern about the 11 potential upward bias in analysts growth 12 estimates. However, Ms. McShane argued that 13 as long as investors believe the optimistic 14 forecast, they would price the securities 15 lower resulting in a lower dividend yield and 16 the DCF test would still be an unbiased 17 estimate of investor required returns. She 18 indicated that this proposition had been 19 successfully tested and described three tests, 20 including the fact such growth estimates have 21 averaged less than GDP growth. In the 22 Commission's view, this line of reasoning does 23 not resolve the issue because there's no 24 evidence that investors believe optimistic 25 forecasts; therefore, the Commission remains	1 as long as investors believe the optimistic 2 forecast, that they would price the securities 3 lower, resulting in a lower dividend yield, 4 and that the DCF test would still be an 5 unbiased estimate of investor required 6 returns? 7 DR. VANDER WEIDE: 8 A. I believe it was meant to say that if 9 investors believe the optimistic forecast, 10 they would price the securities higher, 11 resulting in a lower dividend yield. 12 MR. JOHNSON: 13 Q. But it's the same argument, though? 14 DR. VANDER WEIDE: 15 A. It is the same argument, but the fact is the 16 DCF model is based on the assumption that 17 prices are equal to the discounted present 18 value of future cashflows, and those prices, 19 we have shown, reflect analysts growth 20 forecasts. So if you're going to use prices 21 that reflect analysts growth forecast, you 22 ought to use the analysts growth forecast to 23 estimate the growth component of the DCF 24 model. 25 MR. JOHNSON:

Page 97	Page 99
1 Q. Would that have been a similar position that 2 you've taken before the Alberta Board? 3 DR. VANDER WEIDE: 4 A. I don't think it was - I'm not sure it was 5 examined before the Alberta Board. I don't 6 recall. It's been some time now. 7 (11:45 a.m.) 8 MR. JOHNSON: 9 Q. Right. Dr. Vander Weide, I'd like to turn to 10 Ex Ante risk premium, and just to clear up an 11 confusion because we had some discussion as to 12 whether this was DCF based, and I'd like to 13 bring you to Question 105, which is at page 36 14 of your written report. The question at 105 15 is, "How do you estimate the forward-looking 16 required equity risk premium on an equity 17 investment in utility stocks in each month of 18 your study period", and your answer is, "My 19 estimate of the required equity risk premium 20 is based on studies of the discounted cashflow 21 expected return on comparable groups of 22 utilities in each month of my study period, 23 compared to the interest rate on long term 24 government bonds". So there's no doubt that 25 DCF is integral to your Ex Ante risk premium	1 least two analyst included in the IBS mean 2 growth forecast". So again that would be 3 integral to the DCF sort of analysis? 4 DR. VANDER WEIDE: 5 A. I believe that I've answered your questions 6 about the DCF. 7 MR. JOHNSON: 8 Q. At Exhibit 10, Dr. Vander Weide, this is an 9 exhibit where you were showing data from 10 September, 1999, up to June of 2012, where you 11 have DCF bond yield, risk premium set out, and 12 if I could bring you to March or April of 13 2009, which would be line 115 in this 14 analysis. 15 DR. VANDER WEIDE: 16 A. Yes, I'm there. 17 MR. JOHNSON: 18 Q. In March of 2009, we're talking about a DCF 19 return of 12.5 percent based on a 3.78 bond 20 yield, which gives rise to an 8 percent risk 21 premium, 8.72 risk premium is around March of 22 2009, but that risk premium, that would be - 23 that would be next then, it seems to me, 24 compared to June, 2012 to show some contrasts, 25 which is at line 154. At that point in June
Page 98	Page 100
1 estimate, right? 2 DR. VANDER WEIDE: 3 A. No, there's no doubt about that. What I was 4 pointing out earlier was that this isn't the 5 same thing as just a DCF estimate, however. 6 It doesn't just look at the latest DCF result, 7 it looks at the risk premiums over the entire 8 period and then looks at the relationship of 9 those risk premiums to interest rates via a 10 statistical analysis that shows that the risk 11 premiums tend to increase when interest rates 12 decline. 13 MR. JOHNSON: 14 Q. Dr. Vander Weide, you indicated at Question 15 106, you ask yourself what comparable 16 utilities do you use in your forward-looking 17 equity risk premium studies, and you indicate 18 you use two sets of comparable US utilities, 19 natural gas utilities company group and 20 electric utilities company group, and then you 21 go on to say that, "You select all utilities 22 in Standard and Poors natural gas company 23 group that paid dividends during each quarter 24 and did not decrease dividends during any 25 quarter of the past two years, and have at	1 of 2012, DCF 9.3 percent on a 2.3 percent bond 2 yield, and we're seeing the risk premium has 3 dropped down to 6.99 percent from the previous 4 8.72 percent existing as of March of 2009, and 5 indeed over that - between those two periods 6 as well, we've observed that the DCF return 7 has gone from 12.5 percent down to 9.3 8 percent, a difference of 320 basis points, Dr. 9 Vander Weide. Do we gather from this that the 10 risk premium has dropped, as has the DCF 11 expected return, over this interval of time? 12 DR. VANDER WEIDE: 13 A. I think that would be overstating the case. 14 As I discussed this morning, the DCF results 15 like any other results, the CAPM, or risk 16 premium results, are estimated with some 17 degree of uncertainty. So like the situation 18 where I was looking at a large group of 19 companies, I don't put extensive weight on the 20 DCF result in any one period. Rather, I look 21 at the relationship between the DCF result and 22 the interest rates over the entire period. My 23 final estimate is - I don't have an estimated 24 cost of equity for any month. I have a 25 relationship between the DCF rate of return

Page 101

1 and the interest rate, which shows that the
 2 risk premium tends to increase over this
 3 period of time when interest rates decline.
 4 MR. JOHNSON:
 5 Q. I thought when I was looking at your Exhibit
 6 10 that we see DCF, we see bond yield, we see
 7 risk premium, that you were calculating for us
 8 over these periods of time what the risk
 9 premium was, and are you suggesting that the
 10 risk premium has not declined from March of
 11 2009?
 12 DR. VANDER WEIDE:
 13 A. Let's be clear. I was giving you an estimate
 14 of the risk premium in each of those periods,
 15 not what it was - this isn't like a historical
 16 return where we know what the historical
 17 return was. This is an estimate of the risk
 18 premium in each period. Those estimates of
 19 the risk premium have declined since March of
 20 '09, but in general, from the beginning of the
 21 period to now the risk premiums have gone up
 22 when interest rates have declined.
 23 MR. JOHNSON:
 24 Q. But we have not seen that happen over the
 25 period from March to June because we've seen

Page 102

1 the interest rates decline from, I think, 3.78
 2 on the long bond yield in March of 2009 at
 3 line 15, and its declined to 2.31 as of June
 4 of 2012, and over that period we've seen the
 5 risk premium estimates drop as well over that
 6 period of time.
 7 DR. VANDER WEIDE:
 8 A. If you pick a particular period, not all of
 9 the points will always lie on the best fit
 10 regression line. The best fit regression line
 11 shows you the general relationship over the
 12 entire period, and I would suggest, by the
 13 way, that it's not really contested that the
 14 risk premium increases when interest rates
 15 decline. Indeed, as I mentioned summary, Dr.
 16 Booth's own upward adjustment to a CAPM result
 17 indicates that he believes it as well, that
 18 when interest rates are low, the risk premium
 19 needs to be higher, and this is a formal way
 20 to estimate that relationship statistically
 21 between the risk premium and interest rates.
 22 This kind of statistical relationship has
 23 appeared in the literature. It's a common way
 24 to do it, and it's widely accepted that there
 25 is an inverse relationship between risk

Page 103

1 premiums and interest rates.
 2 MR. JOHNSON:
 3 Q. Dr. Vander Weide, has the cost of equity
 4 capital declined since 2009?
 5 DR. VANDER WEIDE:
 6 A. I can't recall what my estimate was in 2009.
 7 I'd have to look at that again using all of m
 8 methods as of that time. I don't - again I
 9 don't just look at a DCF result. I look at
 10 several results because of the uncertainty in
 11 the estimates using any one method.
 12 MR. JOHNSON:
 13 Q. Dr. Vander Weide, you are not a casual
 14 observer of financial markets, you hold a PhD,
 15 you are a professor at a very well known
 16 university in the United States. Would it not
 17 be your sense that relative to March of 2009,
 18 the cost of equity has declined, as have the
 19 risk premium?
 20 DR. VANDER WEIDE:
 21 A. Well, when you got to the last--I was ready to
 22 say yes until you got to the last part. I
 23 believe the cost of equity has declined. I
 24 believe the risk, the required risk premium
 25 has increased, so that the cost of equity has

Page 104

1 not declined by nearly as much as the interest
 2 rate and I believe that--and there was not
 3 much controversy about that since Dr. Booth
 4 himself added 180 basis points or 120 basis
 5 points to his CAPM results because interest
 6 rates are low right now and the risk premium
 7 is higher when interest rates are low.
 8 MR. JOHNSON:
 9 Q. Dr. Vander Weide, do you recall providing cost
 10 of capital testimony for Terasen Gas in 2009
 11 before the British Columbia Utilities
 12 Commission?
 13 DR. VANDER WEIDE:
 14 A. I don't recall what date it was. I remember
 15 testifying for Union Gas.
 16 MR. JOHNSON:
 17 Q. No, it wasn't Union Gas, it was Terasen Gas.
 18 DR. VANDER WEIDE:
 19 A. Oh, Terasen Gas, I'm sorry, yes.
 20 MR. JOHNSON:
 21 Q. Yes, and just at page--if I could go to your
 22 report at page 116, down towards the very
 23 bottom of that page, you see you sponsored
 24 testimony on behalf of Terasen Gas
 25 Incorporated in B.C. in May of 2009.

Page 105	Page 107
1 DR. VANDER WEIDE: 2 A. Yes. 3 MR. JOHNSON: 4 Q. And can you recall that you recommended for 5 Terasen Gas at that time a return on equity of 6 11 percent? 7 DR. VANDER WEIDE: 8 A. I cannot recall what it was. 9 MR. JOHNSON: 10 Q. Can you file with us by way of an undertaking 11 the evidence, including all exhibits that you 12 filed before the British Columbia Utilities 13 Commission on behalf of Terasen in May of 14 2009? 15 DR. VANDER WEIDE: 16 A. I'd be happy to, for the purpose of cross I 17 would accept your characterization that it was 18 11 and we could discuss it or I could provide 19 the testimony. 20 MR. JOHNSON: 21 Q. If you could provide the testimony that would 22 be fine. 23 DR. VANDER WEIDE: 24 A. Okay. 25 MR. JOHNSON:	1 Q. Now, Dr. Vander Weide, if I could ask you to 2 turn up CA-195? This is references testimony 3 that you provided on behalf of Newfoundland 4 Power in March of 2012. This passage is not 5 included in your present report and the 6 question is: Does regulation create 7 uncertainty for electric utilities? And you 8 state: "Yes, investor's perceptions of the 9 business and financial risk of electric 10 utilities are strongly influenced by their 11 views of the quality of regulation. Investors 12 are painfully aware that regulators in some 13 jurisdictions have been unwilling at times to 14 set rates that allow companies an opportunity 15 to recover their cost of service in a timely 16 manner and earn a fair and reasonable return 17 on investment. As a result of the perceived 18 increase in regulatory risk, investors will 19 demand a higher rate of return of electric 20 utilities operating in those jurisdictions. 21 On the other hand, if investors perceived that 22 regulators will provide a reasonable 23 opportunity for the company to maintain its 24 financial integrity and earn a fair rate of 25 return on its investment, investors will
Page 106	Page 108
1 Q. Thank you. And you recall, sir, that more 2 recently than that you testified for what is 3 now called FEI, which is the former Terasen 4 Gas, correct? 5 DR. VANDER WEIDE: 6 A. Yes. 7 MR. JOHNSON: 8 Q. And you provided testimony before the BCUC in 9 August of 2012? 10 DR. VANDER WEIDE: 11 A. Yes. 12 MR. JOHNSON: 13 Q. And you recommended 10.5 percent, did you not, 14 for FEI? 15 DR. VANDER WEIDE: 16 A. I believe that's correct. 17 MR. JOHNSON: 18 Q. That's right, so we'll--you're accepting a 50 19 basis point difference in the cost of equity, 20 I assume since 2009 to August of 2012, are 21 you? 22 DR. VANDER WEIDE: 23 A. Yes. 24 (12:00 p.m.) 25 MR. JOHNSON:	1 review regulatory risk as minimum." And I 2 asked you in the question to confirm how long 3 either this exact answer or comment or one 4 practically identical has been used by you in 5 cases for which you provided cost of capital 6 evidence, but you indicated that you can't 7 determine in which cases you've made this 8 exact answer because you don't maintain any 9 records. So, and I take it that you still 10 can't tell us how long you've been making that 11 statement in your typical evidence? 12 DR. VANDER WEIDE: 13 A. That's correct. 14 MR. JOHNSON: 15 Q. What were you talking about in terms of 16 investors being painfully aware that 17 regulators in some jurisdictions have been 18 unwilling at times to set rates and allow them 19 to recover their cost of service in a timely 20 manner? What was the painful awareness that 21 you're referring to? 22 DR. VANDER WEIDE: 23 A. That the regulators--one, was that the 24 regulators may grant an allowed return that 25 was less than a reasonable estimate of the

Page 109	Page 111
1 cost of equity which I believe has in fact 2 occurred in many Canadian jurisdictions, and 3 another is that there are times when they're 4 not granted an opportunity to earn their 5 required rate of return. 6 MR. JOHNSON: 7 Q. And so it would be, there would be pain, I 8 take it, from not getting as much as the 9 utility wanted, is that one of the pains 10 you're talking about? And in addition, 11 getting what the Board ordered, but not being 12 able to earn it? 13 DR. VANDER WEIDE: 14 A. Those would be two factors, yes. 15 MR. JOHNSON: 16 Q. And in terms of the investors being painfully 17 aware that regulators in some jurisdictions, I 18 mean, are there examples that stick out in 19 your mind in the United States, for example, 20 where investors have been hurt by regulatory 21 action? 22 DR. VANDER WEIDE: 23 A. You're asking me on the spot to recall an 24 example, that's pretty difficult to do. 25 MR. JOHNSON:	1 MR. JOHNSON: 2 Q. So on that definition regulatory risk out in 3 Alberta wouldn't be minimal in any case where 4 you've provided testimony where you thought 5 the utility should have gotten a higher return 6 than the commission ordered, that would be in 7 your definition regulatory risk? 8 DR. VANDER WEIDE: 9 A. Not necessarily, but what distinguishes--that 10 would be one part of it, but it's not all of 11 it, what distinguishes the jurisdictions that 12 you're talking about is a comparison to the 13 allowed rates return in the US, those allowed 14 rates return are independent of my judgment, 15 they're what regulators have determined the 16 rates return to be, the fair rates return to 17 be and they have been, over the last three 18 years, in the range of 10.1 to 10.5 percent. 19 That's similar to my recommendation in this 20 proceeding which is 10.4 percent, but beside 21 that, the company is currently allowed to earn 22 a return that is significantly below the range 23 of 10.1 to 10.5. I agree with the US allowed 24 return record that those are--that those are 25 similar to my current recommended allowed rate
Page 110	Page 112
1 Q. Well there's been utilities failed in the 2 United States, for instance? 3 DR. VANDER WEIDE: 4 A. Yes, those were very unusual circumstances, 5 but yes. 6 MR. JOHNSON: 7 Q. And it's never happened in Canada, to your 8 knowledge, has it? 9 DR. VANDER WEIDE: 10 A. No, but I don't believe that investors expect 11 it to occur in the US right now. 12 MR. JOHNSON: 13 Q. And I was a bit surprised, Dr. Vander Weide, 14 that you are of the view that you do not 15 believe that Newfoundland Power's regulatory 16 risk as being minimal and I'd like to ask you 17 why not? And it's not in that passage, but 18 it's--you've indicated in reply to CA-199 that 19 you do not view Newfoundland Power's 20 regulatory risk as being minimal. 21 DR. VANDER WEIDE: 22 A. Yes, and I gave my reason there that I don't 23 believe that--I believe that in Newfoundland 24 Power's allowed returns below is fair return, 25 right now.	1 of return--my assessment of the fair return, 2 but they are significantly higher than the 3 company's allowed rate of return in 4 Newfoundland. 5 MR. JOHNSON: 6 Q. So just so I can understand this concept, if 7 this Board were to determine that Newfoundland 8 Power should not be entitled to a return of 9 10.4, 10.5, whatever you're suggesting, and 10 instead something less than that, that would 11 constitute regulatory risk by your definition 12 for Newfoundland Power? 13 DR. VANDER WEIDE: 14 A. Yes. 15 MR. JOHNSON: 16 Q. And what would be--so in order for a utility 17 not to have regulatory risk, they would have 18 to be given a return that you agreed with, or 19 a higher return? 20 DR. VANDER WEIDE: 21 A. No, as I just suggested, one could have, if 22 you didn't agree with my particular estimate, 23 you could look at other evidence, such as 24 allowed rates of return on equity for US 25 utilities, those would be regulatory allowed

Page 113

1 rates of return and also I guess the--whether
 2 you agree with my estimate or not, it still is
 3 a risk that whatever the investor's required
 4 return is, if they don't get that, they will
 5 consider that they didn't have an opportunity
 6 to earn their required return.
 7 MR. JOHNSON:
 8 Q. Could I turn you to 202 where I asked "What
 9 are the five least supportive regulatory
 10 jurisdictions in the United States and what
 11 are the current allowed returns on equity for
 12 electric utilities in these jurisdictions?"
 13 DR. VANDER WEIDE:
 14 A. I have that.
 15 MR. JOHNSON:
 16 Q. Okay. And you have provided this data on
 17 utilities that operate in the district of
 18 Columbia, Illinois, Maryland, New Jersey, New
 19 York, and Texas and these companies would be
 20 in the least supportive regulatory
 21 jurisdictions in the United States?
 22 DR. VANDER WEIDE:
 23 A. Yes.
 24 MR. JOHNSON:
 25 Q. Okay. And you indicate that this data, along

Page 114

1 with the data provided in response to CA-203
 2 in which you point out the five most
 3 regulatory supportive jurisdictions in the
 4 United States, but we won't go there for a
 5 second, is that "the allowed ROE is a major
 6 determinant of regulatory rate making and that
 7 is companies in jurisdictions with relatively
 8 low ROEs are considered by SNL Financial to
 9 have low regulatory support and high
 10 regulatory risk; whereas companies in
 11 jurisdictions with relatively high ROEs are
 12 considered by SNL Financial to have high
 13 regulatory support and thus low regulatory
 14 risk." And so if we key it off by the high
 15 allowed return and just leave it at that, is
 16 that the end of the analysis for whether the
 17 risk is high or not for an equity investor?
 18 DR. VANDER WEIDE:
 19 A. No, that's one of the risks. The other--there
 20 are other aspects of risks, one is and it
 21 depends on the way you frame the question, if
 22 you're looking at are Canadian utilities more
 23 or less risky than US utilities, if that's the
 24 question, then you could look at the
 25 variability of returns for Canadian and US

Page 115

1 utilities and as I have suggested those have
 2 been approximately equal over many, many
 3 years. So the returns in the marketplace show
 4 that the risk of Canadian utilities and US
 5 utilities are approximately the same. One
 6 could also look at their capital structures,
 7 for example, and assess financial risk. One
 8 could look--I'm a little less comfortable with
 9 bond ratings because they reflect more the
 10 risk of bond holders, rather than
 11 stockholders, but even if you look at the bond
 12 ratings, you would find out that my samples of
 13 US utilities are comparable in risk to the
 14 Canadian utilities.
 15 MR. JOHNSON:
 16 Q. So fundamentally, Dr. Vander Weide, you
 17 believe that the United States and Canadian
 18 utilities have similar business risks on
 19 average, right?
 20 DR. VANDER WEIDE:
 21 A. I believe that it's arguable that they do. I
 22 believe that--I feel more strongly that their
 23 total risk is similar.
 24 MR. JOHNSON:
 25 Q. So you'd be prepared to concede that the

Page 116

1 average Canadian utility may in fact have less
 2 business risk than the US utility?
 3 DR. VANDER WEIDE:
 4 A. I think the answer to that is yes, but I would
 5 say that it's very hard to assess business
 6 risk because we don't have measures of
 7 business risk that are numerical to say what's
 8 higher and what's lower. We have measures of
 9 total return in the marketplace, which I have
 10 looked at and shown that they're the same. We
 11 can look at various indicators, but those are
 12 just indicators. At best we can do is
 13 estimate the business risk.
 14 MR. JOHNSON:
 15 Q. What would be the indicators?
 16 DR. VANDER WEIDE:
 17 A. You know, we could, for instance, look at bond
 18 rating agencies assessment's of business and
 19 financial risk and we might say that okay, the
 20 bond rating agencies perhaps think that on a
 21 business risk basis Canadian utilities are a
 22 little less risky than US utilities, but then
 23 we would have to combine that with the
 24 financial risk indicators that the bond rating
 25 agencies used and we'd say well, on that

Page 117	Page 119
1 basis, Canadian utilities are a little more 2 risky than US utilities and we combine those 3 into a bond rating and say perhaps from the 4 perspective of bond investors the two are 5 approximate, they have about the same bond 6 ratings, as especially my group, which is the 7 most important--what's really important is not 8 to say in general are US utilities more risky, 9 what's important is to say what are the 10 comparable companies being used and are they, 11 as a whole, on average, more or less risky and 12 the bond ratings would indicate that they are 13 approximately the same. 14 MR. JOHNSON: 15 Q. Dr. Vander Weide, you indicated when you 16 started that long exposition that there were 17 indicators that you could look to of business 18 risk and then you went to one indicator, which 19 was bond rating, but I would like to bring you 20 back, what are the other indicators that we 21 might look to to assess the differences 22 between the two countries in business risk? 23 DR. VANDER WEIDE: 24 A. Well I talk about in my testimony the various 25 cost adjustment mechanisms and rate	1 assessment. What I would say is that one 2 ought to try to assess the total risk of the 3 US companies, both business and financial 4 risk, compared to especially the comparable 5 companies that are being used and compared to 6 the Canadian companies. 7 MR. JOHNSON: 8 Q. So you have not thought about the difference 9 in business risks between transmission, gas 10 distribution or electric distribution or 11 vertically integrated, enough - 12 DR. VANDER WEIDE: 13 A. No, I didn't say that, I said I thought about 14 it but I don't believe that there's a 15 numerical measure that one can use to say 16 definitively which of those are more risky 17 than the other. 18 MR. JOHNSON: 19 Q. Okay, so you go then to the indicator you 20 talked about the bond rating, and of course, 21 you believe that US utilities have higher 22 financial risks on average than Canadian 23 utilities, right? 24 DR. VANDER WEIDE: 25 A. Yes.
Page 118	Page 120
1 stabilization mechanisms and although I 2 mentioned earlier I didn't study them in 3 detail, from my years of experience working in 4 the utility field in the US, I've indicated 5 that for many years the US did not have the 6 same regulatory support kinds of factors, but 7 in the last--since approximately 2007 they 8 have greatly increased the kinds of cost 9 adjustment mechanisms and rate stabilization 10 mechanisms. 11 MR. JOHNSON: 12 Q. Do you accept the proposition that gas, that 13 transmission would be the lowest risk and then 14 next lowest would be distribution, next lowest 15 would be gas distribution and then the higher 16 up again would be vertically integrated? 17 DR. VANDER WEIDE: 18 A. I think that's very difficult to assess and I 19 don't have a judgment on that. I don't 20 believe, although I know it's popular in 21 Canada to make very fine distinctions between 22 the different lines of business, I would 23 suggest that there are different business 24 risks associated with each of those lines of 25 business and that it's difficult to make the	1 MR. JOHNSON: 2 Q. And that's a more of a - 3 DR. VANDER WEIDE: 4 A. Yes, that's correct. 5 MR. JOHNSON: 6 Q. And more of a demonstrable thing because that 7 arises out of their capital structure. 8 DR. VANDER WEIDE: 9 A. Yes. 10 MR. JOHNSON: 11 Q. Okay, and Dr. Vander Weide, you were in fact 12 surprised, were you not, to learn in 2009 that 13 Canadian utilities over average have higher 14 credit ratings than American utilities on 15 average, you were surprised to learn that, 16 weren't you? 17 DR. VANDER WEIDE: 18 A. I don't believe--I haven't seen evidence that 19 they do on average. I've seen some that are 20 higher, I've seen some that are consistent 21 with mine. I believe that from my sample of 22 companies the average is BBB+ to A- and I 23 don't really think from an equity investor 24 standpoint there's much difference in risk 25 between a BBB+ and A- bond rating.

Page 121	Page 123
1 MR. JOHNSON: 2 Q. Could I turn your attention to CA-NP-211? And 3 this question we asked "in reply to CA-NP-270 4 from the March 2012 Newfoundland Power Cost of 5 Capital matter, there is an extract taken from 6 the Alberta Utilities Commission 2009 Generic 7 Cost of Capital decision of November 12th, 8 2009, and at page 53 of the decision of the 9 AUC, there is an exchange between Commission 10 counsel and Dr. Vander Weide" and it goes like 11 this "Question: Thank you, sir. Sir, if 12 Canadian and US utilities have similar 13 business risk but different financial risk, 14 wouldn't you have Canadian" -- I think it 15 should be "wouldn't Canadian utilities have to 16 have lower credit ratings than comparable 17 utilities in the United States?" 18 And your answer was "I'm looking at the 19 question again. I'm not a credit rating 20 expert, so it's difficult for me to comment on 21 what credit ratings I would expect them to 22 have with the same degree of understanding as 23 say a Susan Abbott would have who has a lot of 24 years experience working for credit rating 25 agencies. Based on the financial metrics	1 have since seen information that there's not 2 that much difference between Canadian 3 utilities and US utilities in general, and not 4 only that, but I provide evidence in my direct 5 testimony that the cost of equity for 6 companies with different bond -- the allowed 7 rates of return for companies with different 8 bond ratings is not material, that bond rating 9 is not an indicator of cost of equity. So I 10 don't believe, from an equity perspective, 11 that a difference between a BBB+ and an A- has 12 any effect on the cost of equity. 13 MR. JOHNSON: 14 Q. But factors that Moody's, for instance, would 15 take into account in determining that the 16 business environment and regulatory 17 environment is more supportive in terms of, 18 for instance, in Newfoundland Power's case, 19 whether it be deferral accounts or the fact 20 that they can have, you know, costs past 21 through -- you get a general sense of them 22 saying the environment is a bit more friendly, 23 but you take that as not indicating anything 24 that would assist the equity investor? 25 DR. VANDER WEIDE:
Page 122	Page 124
1 alone, I would -- I am surprised that the 2 Canadian utilities have slightly higher credit 3 ratings than the US utilities because the 4 financial metrics are quite a bit lower, even 5 for what I consider similar businesses. I 6 don't know how to explain it. I'm just 7 surprised at it, but I don't know how to 8 explain it." 9 Now Dr. Vander Weide, would one possible 10 -- if the ratings are meant to cover, 11 encapsulate an overall risk, would one 12 possible explanation be that in fact people 13 like Moody's are right when they say that 14 generally the business and regulatory 15 environment is more supportive in Canada than 16 it is in the United States? 17 DR. VANDER WEIDE: 18 A. I don't necessarily believe that they are 19 right, from an equity investor standpoint, but 20 the most important thing is not just the 21 business risk, it's the total risk and the 22 bond rating -- I was given -- I was pointing - 23 - I was given apparently bond ratings for 24 particular groups that appeared that it was 25 slightly higher for Canadian utilities. I	1 A. No, I look at some of those factors myself. 2 What I'm saying is you can't look at one 3 factor in isolation and reach a conclusion 4 about the relative risk of US and Canadian 5 utilities. You have to consider all of the 6 risk factors, including financial risk, 7 including the variability of returns in the 8 marketplace, and then you have to ask 9 yourself, as the bottom line, well, even if 10 Canadian utilities were less risky, which I 11 don't believe they are, how can I estimate the 12 cost of equity when there are only two 13 Canadian utilities that have -- publicly 14 traded Canadian utilities that have a 15 significant percentage of regulated asset. 16 MR. JOHNSON: 17 Q. So then we're into sample selection and you 18 use two groups. In terms of your American 19 companies, you have a comprehensive grouping, 20 and as I understand it, in order to be within 21 the comprehensive grouping, you just 22 essentially needed to be a US electric or 23 natural gas business. Would that be right? 24 DR. VANDER WEIDE: 25 A. With an investment grade credit rating.

Page 125	Page 127
1 MR. JOHNSON: 2 Q. Okay. And it had to have -- would have to pay 3 dividends? 4 DR. VANDER WEIDE: 5 A. Right. 6 MR. JOHNSON: 7 Q. And had to have at least two analysts? 8 DR. VANDER WEIDE: 9 A. Yes. 10 MR. JOHNSON: 11 Q. And it had to have a safety ranking of one, 12 two or three, I think you indicate in your 13 evidence? 14 DR. VANDER WEIDE: 15 A. Yes. 16 MR. JOHNSON: 17 Q. And for instance, a safety ranking of three, 18 who provides the safety ranking? 19 DR. VANDER WEIDE: 20 A. Value Line. 21 MR. JOHNSON: 22 Q. Value Line, and how do they define what a 23 company with a safety -- with a ranking of 24 three would be? 25 DR. VANDER WEIDE:	1 ranks of one, two or three." 2 MR. JOHNSON: 3 Q. I'll have to -- and then you look for an 4 investment grade. They had to have an 5 investment grade as well, Dr. Vander Weide? 6 DR. VANDER WEIDE: 7 A. Yes. 8 MR. JOHNSON: 9 Q. And why was that important? 10 DR. VANDER WEIDE: 11 A. Because although I don't think that bond 12 ratings themselves are perfect indicators of 13 risk, I do believe there's a break at whether 14 your investment grade or not, and as I -- 15 those that are below investment grade are -- 16 there's no doubt that they're more risky than 17 companies that are above investment grade. In 18 fact, most pension plans or university 19 endowments or such investment -- managers of 20 investment portfolios have legal guidelines 21 that say that they have to restrict their 22 investments in bonds to bonds that are 23 investment grade bond ratings. That's a 24 definite cut-off in US financial markets, as 25 whether you're investment grade or you're not,
Page 126	Page 128
1 A. I forget exactly what their criteria is, but I 2 do know that they suggest that conservative 3 investors limit their selection of stocks to 4 companies with safety ranks of one, two or 5 three. And so, I believe that they would say 6 that if you had a portfolio of securities and 7 you limited them to safety ranks of one, two 8 or three, that would be a conservative 9 investment and so that's what I did. 10 MR. JOHNSON: 11 Q. But the safety rank of three, I took that to 12 mean, and I'll find it -- perhaps I'll get a 13 chance to find it, but I took safety rank to 14 three to be an average risk company. 15 DR. VANDER WEIDE: 16 A. That is an average risk company, yes. 17 MR. JOHNSON: 18 Q. So it would be an average -- not conservative, 19 an average risk company would be a rank of 20 three? 21 DR. VANDER WEIDE: 22 A. Value Line states, and I'm virtually quoting 23 it because I remember it very well, "we 24 recommend that conservative investors limit 25 their investments to companies with safety	1 and investment grade is BBB- or above. Non- 2 investment grade is BBB- or below -- or is 3 below BBB-. 4 MR. JOHNSON: 5 Q. Okay. And then for your more screened group, 6 you provide -- you have a further condition 7 that the companies would have to meet, I 8 understand. 9 DR. VANDER WEIDE: 10 A. Two conditions. One, that they have 80 11 percent of their assets, at least 80 percent 12 devoted to utility regulation, and the second 13 -- to assets that are regulated by utilities, 14 and second, that they have BBB or above bond 15 ratings. 16 MR. JOHNSON: 17 Q. But other than that, you don't consider actual 18 unregulated earnings as being a screening 19 measure or other unregulated activities, other 20 than the 20 percent asset test? 21 DR. VANDER WEIDE: 22 A. Well, there are problems with each indicator, 23 if you're going to look at earnings or assets 24 or revenues. The EEI uses assets as their 25 indicator and that data is fairly easy to get

Page 129	Page 131
1 and so that's what I use. I don't believe 2 it's a -- I think the best indicator that one 3 could have is if you could look at the market 4 values of the investments in each business 5 segment. That would show how the market views 6 the value of each of those businesses. The 7 problem is one can't get that information 8 because the segments aren't market traded. 9 Other than that, you only have indicators. 10 You don't have hard and fast estimates of what 11 percentage of the business is in each segment. 12 MR. JOHNSON: 13 Q. For instance, through some of the cross- 14 examination of Ms. McShane yesterday, there 15 were certain of her companies that had fairly 16 significant unregulated income over the last 17 few years. She provided us with an RFI reply 18 on that. Sometimes it would be 30 percent in 19 a year, could be 25. But that, to you, would 20 not be a material consideration in terms of 21 the comparability to Newfoundland Power, which 22 has no unregulated earnings? 23 DR. VANDER WEIDE: 24 A. Well, let me first say again that there are 25 only two Canadian utilities that are market	1 aren't any unregulated businesses when there 2 really are. But the best way to do it is to 3 look at the total risk, rather than just 4 regulated and unregulated. 5 MR. JOHNSON: 6 Q. I take it you are in absolute agreement with 7 this Board that the chosen -- that it's not 8 enough that the chosen comparables are the 9 best available and that if the data is to be 10 relied on, it must be shown to be a reasonable 11 proxy or that reasonable adjustments can be 12 made to account for the differences? That was 13 what the Board stated in P.U. 43. You're in 14 absolute agreement with that? 15 DR. VANDER WEIDE: 16 A. I'm in agreement with that and that's why, in 17 this case, I provided a second group that also 18 had to have 80 percent of assets devoted to 19 regulated service and had to have bond ratings 20 of BBB or a plus. In fact, they had bond 21 ratings of BBB+ to A- which is about as high 22 as it gets for regulated utilities. 23 MR. JOHNSON: 24 Q. And Dr. Vander Weide, in this case, you're 25 obviously not making any adjustments whatever
Page 130	Page 132
1 traded that would meet the criterion of having 2 80 percent assets or any percent of earnings. 3 MR. JOHNSON: 4 Q. Yes, and I'm aware of that. I'm aware of that 5 issue. But my question is, besides that 6 point, is it not a relevant consideration in 7 trying to get at what an appropriate return on 8 equity is for Newfoundland Power to consider 9 that companies that have significant 10 unregulated earnings, whereas Newfoundland 11 Power doesn't have any unregulated earnings, 12 it might be a different consideration for an 13 equity investor? 14 (12:30 p.m.) 15 DR. VANDER WEIDE: 16 A. I believe that assets is a better way to do 17 it, although I don't think that's perfect. 18 The best way would be market values, if you 19 had those. Earnings, the problem could be you 20 might have negative earnings or zero earnings 21 at your unregulated businesses and then you 22 would look like you were 100 percent regulated 23 earnings, but you had a lot of assets in those 24 unregulated businesses. So earnings has the 25 difficulty that you might indicate that there	1 to the US data that you reported in your test, 2 right? 3 DR. VANDER WEIDE: 4 A. I considered making adjustments, but I didn't 5 believe that there was a difference in risk. 6 MR. JOHNSON: 7 Q. And so there's no need to make adjustments, so 8 your recommendation to the Board is "look, 9 take this data as it is and apply it and use 10 it, don't adjust it. There are no differences 11 on the overall between these companies"? 12 DR. VANDER WEIDE: 13 A. Yes. 14 MR. JOHNSON: 15 Q. Okay. Now Ms. McShane stated, and she 16 participated in a previous case before the 17 Board in 2009, and she eliminated a number of 18 companies from her 2009 sample and the 19 companies that she eliminated were Dominion, 20 Duke Energy, FPL NextEra, I think there's been 21 some sort of amalgamation or something there, 22 New Jersey Resources, NSTAR, and Scana, and of 23 these companies, Dr. Vander Weide, Scana is in 24 your comprehensive sample, correct? 25 DR. VANDER WEIDE:

Page 133	Page 135
1 A. Yes. It's pronounced Scana, but it is in my - 2 MR. JOHNSON: 3 Q. Scana, okay. And Duke Energy is in your 4 comprehensive sample? 5 DR. VANDER WEIDE: 6 A. Yes. 7 MR. JOHNSON: 8 Q. And as is Dominion? 9 DR. VANDER WEIDE: 10 A. Yes. 11 MR. JOHNSON: 12 Q. As is FPL NextEra? 13 DR. VANDER WEIDE: 14 A. Yes. 15 MR. JOHNSON: 16 Q. Is NSTAR another company that you have? I 17 couldn't see it there, but I didn't know if it 18 was. I didn't see it under NSTAR and I was 19 wondering if there had been a corporate name 20 change. 21 DR. VANDER WEIDE: 22 A. Well, I believe they've been acquired since 23 that time. 24 MR. JOHNSON: 25 Q. NSTAR has been acquired by whom?	1 but they have operations in a variety of 2 States. 3 MR. JOHNSON: 4 Q. How about PNM Resources as No. 21? 5 DR. VANDER WEIDE: 6 A. What's your question about them? 7 MR. JOHNSON: 8 Q. Are they a vertically integrated company or 9 what are they? 10 DR. VANDER WEIDE: 11 A. PNM, you want me to refer to my data on them 12 or are you asking me -- is this a quiz of my 13 recall of all these companies? 14 MR. JOHNSON: 15 Q. Well, I'm looking at NiSource, I'm looking at 16 PNM and another one that interests me is 17 Hawaiian Electric, No. 14. 18 DR. VANDER WEIDE: 19 A. Right. 20 MR. JOHNSON: 21 Q. And the reason why it interests me is because 22 your report is dated September 2012 and I 23 don't know if you're aware of a publication 24 that Standard and Poors put out on April 20th, 25 2012, which is at CA-NP-351. Could you turn
Page 134	Page 136
1 DR. VANDER WEIDE: 2 A. I think -- I forget whether it's Northeast 3 Utilities or whom. It was a New England 4 company that acquired NSTAR but I can't -- as 5 I'm sitting here. Maybe at a different point 6 in time, I would remember. Right at this 7 moment, I don't. 8 MR. JOHNSON: 9 Q. Okay. Dr. Vander Weide, in Exhibit 5, I see 10 you use a company No. 16 called NiSource. 11 DR. VANDER WEIDE: 12 A. Yes, that's in my larger group. 13 MR. JOHNSON: 14 Q. Yeah, and that's No. 16? 15 DR. VANDER WEIDE: 16 A. Yes. 17 MR. JOHNSON: 18 Q. And what sort of company is NiSource? 19 DR. VANDER WEIDE: 20 A. NiSource is a combination electric, gas and 21 pipeline company. 22 MR. JOHNSON: 23 Q. Where do they operate out of? 24 DR. VANDER WEIDE: 25 A. They are -- their headquarters is in Indiana,	1 to that? In particular, if we could go to the 2 attachment? 3 DR. VANDER WEIDE: 4 A. I have one page in this book. That's all I 5 have and that's the verbal answer. 6 MR. JOHNSON: 7 Q. Okay. There's a document behind that. 8 DR. VANDER WEIDE: 9 A. CA-NP-351 in the book that I have just has the 10 answer. It doesn't have that document. 11 MR. JOHNSON: 12 Q. We have the document on the screen though, I 13 think. Do you see it on the screen, sir? 14 DR. VANDER WEIDE: 15 A. I see the cover page on the screen. 16 MR. JOHNSON: 17 Q. Okay. This is a Standard and Poor's report 18 entitled US Regulated Utilities: Strongest to 19 Weakest, dated April 20th, 2012. 20 DR. VANDER WEIDE: 21 A. Yes. 22 MR. JOHNSON: 23 Q. And Dr. Vander Weide, if you go in another 24 page, or on the screen, I know it's -- you 25 can't do it right there now, but the gentleman

Page 137	Page 139
1 will help us. This is headed up "the 2 following list ranks all the rated companies 3 in the United States regulated electric, gas 4 and water utility sectors from strongest to 5 weakest, based on rating and outlook. We 6 further rank companies with the same rating 7 and outlook by our opinion of credit quality 8 based primarily on business risks for 9 investment grade companies and primarily on 10 financial risk for speculative grade 11 companies." And then I won't read the rest, 12 but they provide a ranking -- have you seen 13 this document before? 14 DR. VANDER WEIDE: 15 A. I believe I have. 16 MR. JOHNSON: 17 Q. Yes. And this document, Dr. Vander Weide, if 18 you would accept, subject to check, contains 19 227 different companies in the United States 20 and provides their ranking. And if you could 21 go in to page seven, the last page, about ten 22 companies down, you see NiSource? 23 DR. VANDER WEIDE: 24 A. Yes. 25 MR. JOHNSON:	1 perhaps - 2 MS. GLYNN: 3 Q. How long would you require, Mr. Johnson? 4 MR. JOHNSON: 5 Q. Maybe about ten minutes. Would that be okay? 6 CHAIRMAN: 7 Q. Sure. 8 MR. JOHNSON: 9 Q. Thank you. 10 (BREAK - 12:40 p.m.) 11 (RESUME - 1:00 p.m.) 12 MR. JOHNSON: 13 Q. Mr. Chairman, I have nothing further for Dr. 14 Vander Weide. 15 CHAIRMAN: 16 Q. Okay. Madame. 17 GREENE, Q.C.: 18 Q. Good afternoon, Dr. Vander Weide. 19 DR. VANDER WEIDE: 20 A. Good afternoon. 21 GREENE, Q.C.: 22 Q. I do have some questions for you on the same 23 and on different topics covered by Mr. 24 Johnson. 25 DR. VANDER WEIDE:
Page 138	Page 140
1 Q. Out of the 227, that one ranks 209 and if you 2 go a couple down past Duquesne Light Holdings 3 into PNM Resources, it's 211, and then 4 Hawaiian Electric is 214. And these, of 5 course, would be companies that you would 6 consider as being comparable to Newfoundland 7 Power? 8 DR. VANDER WEIDE: 9 A. For the purpose of estimating the cost of 10 equity, I believe that the average risk of my 11 entire group is comparable to Newfoundland 12 Power. I don't believe that all of the 13 companies are. As I indicated, the average 14 Moody's -- or the average S&P bond rating for 15 my entire group is BBB+ and for my smaller 16 group, the average S&P bond rating is -- and 17 it is in the range BBB+ to A- and my DCF 18 reflects the average risk of the companies, 19 not the results of any one company. 20 MR. JOHNSON: 21 Q. The companies that you're using in -- I think 22 what I would like to -- what's it pushing for 23 20 to 1. I wonder if I could ask for just a 24 brief break to see where I am and see what 25 other further notes I have to see if I can	1 A. Okay. 2 GREENE, Q.C.: 3 Q. The first area relates to your assessment of 4 financial risk, and here, if we go to the 5 bottom of page 12 of your evidence. It starts 6 there, I believe. It's question 29. 7 DR. VANDER WEIDE: 8 A. Yes. 9 GREENE, Q.C.: 10 Q. And actually, if you go back to the previous 11 page, please, 28. Okay. I'm not sure if you 12 were present when we talked with Ms. McShane 13 about the assessment of financial risk and 14 what you would take into consideration in 15 looking at the financial risk of a company. 16 DR. VANDER WEIDE: 17 A. Yes. 18 GREENE, Q.C.: 19 Q. And when you look at your -- first, what do 20 you take into account? You have started to 21 talk about it there in your evidence on 22 question 28 and 29, but what are the factors 23 you consider in assessing the financial risk 24 of a company? 25 DR. VANDER WEIDE:

Page 141	Page 143
1 A. Well, I would normally think of risk as -- 2 financial risk as something that increases the 3 variability in the return on equity as a 4 result of leverage in the capital structure, 5 and that is normally how finance people 6 consider it. So, and I define business risk 7 as the variability in the operating return 8 which is the return before interest or taxes 9 and so, financial leverage, financial risk, I 10 think are primarily related, from the equity 11 investors point, to the dead equity ratio. 12 From a bond investor standpoint, they care 13 also about whether you're covering the 14 interest or especially whether you're covering 15 the interest and not only just covering it, 16 but covering it with cash. And so they would 17 look at cash flow coverage, cash flow to debt, 18 which would be an indicator of not only that 19 you could pay the interest, but that you could 20 pay the principal on the debt and they look at 21 the rate of return that's being earned. 22 GREENE, Q.C.: 23 Q. And if you scroll down, please, your answer to 24 question 29? 25 DR. VANDER WEIDE:	1 GREENE, Q.C.: 2 Q. So again, it would go to the capital 3 structure, would it, even the size? 4 DR. VANDER WEIDE: 5 A. Well, no, they -- yeah, by capitalization, I 6 mean the market value of the equity. 7 GREENE, Q.C.: 8 Q. Okay. 9 DR. VANDER WEIDE: 10 A. For companies that have high market -- that 11 are large, in other words. 12 GREENE, Q.C.: 13 Q. I wanted now to move to the question of bond 14 ratings and how you have used them in your 15 opinion. I wonder here if we could go to 16 question 64 and 65? 17 DR. VANDER WEIDE: 18 A. Yes. 19 GREENE, Q.C.: 20 Q. And in response to the question in 65, which 21 is "do you have evidence that bond ratings are 22 a poor indicator of the risk of investing in a 23 company's equity?" and without taking you 24 through the full answer, your answer is yes, 25 from your perspective, bond ratings are not a
Page 142	Page 144
1 A. Yes. 2 GREENE, Q.C.: 3 Q. Which is where you refer to the equity 4 investor when assessing the financial risk 5 does primarily look at the capital structure 6 of the utility? 7 DR. VANDER WEIDE: 8 A. Yes. 9 GREENE, Q.C.: 10 Q. Ms. McShane, in her evidence yesterday, and 11 I'm not sure if you were here for this portion 12 of it, explained that in assessing financial 13 risk, she also would look at such other 14 factors as the size of the business, the 15 credit metrics and the bond ratings. Would 16 you take those factors into account from the 17 perspective of an equity investor? 18 DR. VANDER WEIDE: 19 A. Very definitely the size. I normally think of 20 it more as business risk, but I think one 21 could also think of it as financial risk, and 22 it's been shown that the required returns on 23 companies with small market capitalization are 24 higher than the required returns on equity for 25 companies with large capitalization.	1 -- as you say, they're a poor indicator, and I 2 believe in cross-examination this morning with 3 Mr. Johnson, you used the phrase as well that 4 you're less comfortable in looking at bond 5 ratings when you're looking at it from the 6 perspective of an equity investor? 7 DR. VANDER WEIDE: 8 A. Yes. 9 GREENE, Q.C.: 10 Q. And I wonder, again you may not have been here 11 yesterday for Ms. McShane's cross-examination 12 on this point, but I believe her evidence, 13 paraphrasing it, was that it is helpful to 14 look at what bond ratings are, even if you're 15 the equity investor, and I wanted you, if you 16 could explain, one, your opinion in more 17 detail, and then how you do use bond ratings 18 when you come to the selection of the 19 companies and why you've done so? 20 DR. VANDER WEIDE: 21 A. Okay. Let me focus on the return on equity 22 first. I don't believe that bond ratings in 23 and of themselves measure the risk that an 24 equity investor looks at. I think that what 25 equity investors primarily look at is the

Page 145	Page 147
1 company investment grade or non-investment 2 grade company, and then they look at risk as 3 measured -- after that, they look at risk as 4 measured in the marketplace. As I indicate in 5 answer to 65, the allowed rates of return on 6 equity don't really depend on the bond rating. 7 So until you get down to near the below 8 investment grade level, and that's evidence 9 that it doesn't really reflect on the return o 10 equity. But, bond ratings are very important 11 from a regulatory perspective because in 12 addition to earning a fair rate of return, 13 regulators who follow the fair rate of return 14 standard have to be concerned with the 15 financial health of the company and their 16 ability to attract capital. And bond ratings 17 more relate to those second and third elements 18 in the fair return standard than to the 19 required return on equity. Namely that if -- 20 and especially in Canada, if you have a lower 21 bond rating, it's going to be difficult in 22 difficult markets. You may have a hard time 23 attracting capital and maintaining your 24 financial stability. 25 And there may be other aspects of your	1 seems like the cause and effect is just the 2 opposite. That rather than have a lower bond 3 rating giving a higher required return, it 4 seems like if, for whatever reason, the 5 regulator gives a lower allowed return and a 6 lower equity ratio that the company gets a 7 lower bond rating and that makes some sense 8 because the lower is the allowed return and 9 the lower is the equity ratio, the worse are 10 your credit metrics going to be. And so, you 11 see that the cause and effect goes more from 12 the returns allowed and the equity ratios 13 allowed to the lower bond ratings. 14 So that's the reason why I'm reluctant to 15 think of bond ratings as an indicator of 16 equity risk, because that's what my experience 17 has been, that it doesn't affect either the 18 cost of equity or the allowed return on 19 equity. 20 GREENE, Q.C.: 21 Q. However, we can't totally ignore bond ratings. 22 You have -- we do take -- the regulator should 23 take it into account, as you have in providing 24 your opinion? 25 DR. VANDER WEIDE:
Page 146	Page 148
1 question I didn't respond to yet. I've 2 forgotten the whole question at this point, 3 frankly. 4 GREENE, Q.C.: 5 Q. One was why you have -- and I think you have 6 answered this part, but one was as to why you 7 believe bond ratings are a poor indicator of 8 the risk as viewed by the equity investor and 9 why you are less comfortable when you talk 10 only about bond ratings. 11 DR. VANDER WEIDE: 12 A. Okay. 13 GREENE, Q.C.: 14 Q. Which was less comfortable was the phrase you 15 used this morning in your cross. 16 DR. VANDER WEIDE: 17 A. Yes. Partly having been in several hundred 18 regulatory proceeding, I've been well aware 19 that bond -- that companies with different 20 bond ratings do not have either higher 21 required returns as measured by the cost of 22 equity indicators, nor do they get higher 23 allowed rates of return, as long as they're 24 investment grade. In fact, if anything, if 25 you look at that Table 1 on that page 23, it	1 A. Absolutely, and so, they have to take it into 2 account in order to ensure financial integrity 3 and access to capital, which are the other two 4 standards in the fair return standard and 5 especially in Canada, and where there's not an 6 active market for bonds of lower ratings, 7 lower rated companies, and also, I think it 8 gives some indication of how the financial 9 community looks at the company. 10 GREENE, Q.C.: 11 Q. So in that perspective, it may be of interest 12 to the equity investor because it is how an 13 independent third party does view - 14 DR. VANDER WEIDE: 15 A. It's independent, but it's more important by 16 far to the bond investor than to the equity 17 investor. 18 GREENE, Q.C.: 19 Q. And moving now to another topic which I 20 understand your opinion and your 21 recommendation to the Board is that there is 22 no difference between Canada and the US with 23 if you get the appropriate proxy group, the 24 results for an analysis for the US companies 25 provides valid information that can be relied

Page 149	Page 151
1 on to set the ROE for this Board here for 2 Newfoundland Power. So in essence, there's no 3 real difference between the Canadian 4 environment and the US environment, whether 5 it's on business risk, financial risk or even 6 the regulatory risk, because all of them 7 together, the total risk of three, on your 8 view, are similar for Canadian utilities and 9 US utilities? 10 DR. VANDER WEIDE: 11 A. That's correct. 12 GREENE, Q.C.: 13 Q. And I guess one thing that puzzles me, and we 14 can go to -- first, we can either go to some 15 exhibits or do you accept that historically 16 when you look at the allowed returns in the US 17 for US utilities, they have trended to be 18 higher than for Canadian utilities? That's 19 the allowed returns. 20 DR. VANDER WEIDE: 21 A. Yes. 22 GREENE, Q.C.: 23 Q. Okay. And I guess if -- how do you explain 24 then if they are equal in terms of the risk 25 and the environments are the same, is it that	1 DR. VANDER WEIDE: 2 A. Again, I think I'd be reluctant to talk about 3 right and wrong, because there seems to be 4 some moral aspect to right and wrong. 5 GREENE, Q.C.: 6 Q. Well, we have been better -- the US regulators 7 have been better at determining what an 8 appropriate fair return is for utilities in 9 the US? 10 DR. VANDER WEIDE: 11 A. My feeling is that they have, yes. 12 GREENE, Q.C.: 13 Q. Okay. So that's how you would explain that 14 difference that I observe when I look at what 15 the allowed returns have been? 16 DR. VANDER WEIDE: 17 A. Well, I think there was a time when US 18 utilities were more risky. As I say, there's 19 been quite -- at least with regard to business 20 risk, particularly there were more US 21 utilities that were diversified and that has 22 been reduced considerably, and some years 23 back, especially prior to the financial 24 crisis, there were fewer cost adjustment 25 mechanisms and revenue stabilization
Page 150	Page 152
1 the Canadian regulators have got it wrong 2 because the ROEs that they allow are too low, 3 so we've done a very bad job in Canada of 4 estimating the fair returns and the US has got 5 it right? Because your recommendation is 6 higher than what the allowed returns are by 7 Canadian regulatory boards in recent times. 8 DR. VANDER WEIDE: 9 A. Yes. I don't think I've been experienced in 10 the Canadian regulatory circles long enough -- 11 it's been mainly the last, since about 2009 -- 12 to say -- to make comments on Canadian 13 regulation. The only thing I can say is that, 14 as I explain in my testimony, the allowed 15 returns are less than what I think is the cost 16 of equity. It's less than a fair rate of 17 return on equity and I present evidence to 18 that effect in my direct testimony. 19 GREENE, Q.C.: 20 Q. And generally, in your opinion, the US 21 regulators, with their higher allowed ROEs -- 22 and I know I'm speaking generally, but it is a 23 trend when you look at the data -- they have 24 tended to get it more right than we have in 25 Canada?	1 mechanisms. There's been quite a rapid change 2 in that. Most US utilities are divesting 3 their unregulated operations, as is 4 represented by the very large number with over 5 80 percent regulated assets, and they are 6 increasingly quite rapidly increasing the 7 number of cost adjustment and revenue 8 stabilization mechanisms. 9 GREENE, Q.C.: 10 Q. So if they are becoming less risky, will we 11 see the allowed returns in the US dropping? 12 DR. VANDER WEIDE: 13 A. I think we have the latest information and 14 that information is what I've given in my 15 testimony and that it's in the range of 10. 1 16 to 10.5. Those incorporate the recent -- all 17 the recent changes. 18 GREENE, Q.C.: 19 Q. And I believe you already responded to Mr. 20 Johnson that in your view the cost of equity 21 in the US, as well as in Canada, has fallen by 22 at least 50 basis points I believe from 2009 23 to currently? 24 DR. VANDER WEIDE: 25 A. My opinion is that the cost of equity has

Page 153	Page 155
1 declined but it's still higher than what the 2 allowed rate of return is in Canada. 3 GREENE, Q.C.: 4 Q. The last area of questions relates to the 5 allowance for the financial flexibility and 6 you have, in your opinion, included a 7 recommendation of 50 basis points. Is that 8 correct? 9 DR. VANDER WEIDE: 10 A. Yes. 11 GREENE, Q.C.: 12 Q. And if we could go now to an RFI, PUB-CA-36? 13 DR. VANDER WEIDE: 14 A. Let's see, where would that be? 15 GREENE, Q.C.: 16 Q. Oh, I'm sorry, it's not -- I gave you the 17 wrong reference. It's PUB-NP-91. So that's 18 PUB-NP-91, and it was just -- we did ask you a 19 question with respect to your opinion with 20 respect to financial flexibility. 21 (1:15 p.m.) 22 DR. VANDER WEIDE: 23 A. Yes. 24 GREENE, Q.C.: 25 Q. And I wonder if you could explain why do --	1 market and book values through the financial 2 flexibility allowance of 50 basis points. 3 That wouldn't give you nearly as large of an 4 effect as the use of market value equity and 5 debt in the capital structure, but at least 6 recognizes that stock prices are generally 7 higher than the book value of the equity and 8 to maintain the company's ability to attract 9 capital in the marketplace at market prices 10 one needs to allow a little bit of a premium 11 over the cost of equity as determined in the 12 marketplace. 13 GREENE, Q.C.: 14 Q. And it is your opinion that 50 basis points is 15 adequate to cover those issues that you just 16 raised? 17 DR. VANDER WEIDE: 18 A. To me, I think the truly correct way to do it 19 would be to use a market value capital 20 structure. As I indicate here, in Canada, 21 it's been fairly consistent to use a 50 basis 22 point allowance and I applaud at least the 23 effort to give some recognition to the 24 difference between market values and book 25 values.
Page 154	Page 156
1 why is it necessary to make the adjustment for 2 financial flexibility first? 3 DR. VANDER WEIDE: 4 A. There are two reasons. One is that companies 5 experience floatation costs when they issue 6 new equity and they have to be compensated for 7 those floatation costs in the rate of return 8 normally. And as I suggest in my answer here, 9 that generally comes to between 20 and 25 10 basis points. In addition, the financial risk 11 really should reflect the capital structure of 12 the company measured in terms of market 13 values. All financial textbooks discuss 14 financial risk in terms of market values of 15 debt and equity, not book values. And so 16 there's normally some adjustment to reflect 17 that difference. One way to do it would be to 18 actually allow the return on equity to be 19 applied to the market value of equity and use 20 a market value capital structure to calculate 21 the weighted average cost of capital and the 22 NEB did that several years ago for TQM, I 23 believe. 24 The other way would be to at least give 25 some allowance for the difference between	1 GREENE, Q.C.: 2 Q. Okay. Thank you, Dr. Vander Weide. That 3 concludes my questions. 4 CHAIRMAN: 5 Q. Do you have any - 6 KELLY, Q.C.: 7 Q. No, Mr. Chairman. 8 CHAIRMAN: 9 Q. Okay. I think we're finished with you, sir. 10 Thank you very much. 11 DR. VANDER WEIDE: 12 A. Thank you very much. 13 MS. GLYNN: 14 Q. Mr. Chair, we would like to take a short five- 15 minute break. We do need to discuss the rest 16 of the schedule for today. 17 CHAIRMAN: 18 Q. Okay. 19 (BREAK - 1:20 p.m.) 20 (RESUME - 1:29 p.m.) 21 MR. JOHNSON: 22 Q. Mr. Chairman, Commissioners, my witness who is 23 now on the stand is Dr. Lawrence Booth and 24 he's going to provide evidence on cost of 25 capital.

Page 157	Page 159
1 DR. LAWRENCE BOOTH, SWORN 2 MR. JOHNSON: 3 Q. Dr. Booth, you have prepared testimony in this 4 proceeding entitled Fair Return for 5 Newfoundland Power dated November 2012? 6 DR. BOOTH: 7 A. I did. 8 MR. JOHNSON: 9 Q. Dr. Booth, would you please provide your brief 10 background, experience and qualifications, 11 sir? 12 DR. BOOTH: 13 A. I'm a professor of finance at the University 14 of Toronto where I hold the CIT Chair in 15 structured finance, a chair I've held since 16 1999. For 21 years, I was chair of the 17 finance group at the University of Toronto, a 18 time when we increased our international 19 ranking to be ranked in the top ten globally, 20 both by Business Week and the Financial Times. 21 MR. JOHNSON: 22 Q. Dr. Booth, in addition to that, the 23 Commissioners will be able to see your more 24 full qualifications at the end of your report 25 in one of the appendices, correct?	1 just a question of whether or not the utility 2 had earned its allowed rate of return. And 3 the long run is a lot more subjective because 4 that's where the amount of regulatory 5 protection may not be able to protect the 6 utility. So in the short run, for every 7 hearing I've been in for at least the last ten 8 years, I've asked the utility to provide its 9 allowed ROE and its actual ROE because that's 10 where you can actually see the output from all 11 the amount of regulatory protection in Canada, 12 the deferral accounts and forward test years 13 and everything else. 14 So when I look at Newfoundland Power, I 15 look to the data that's before you and it's 16 quite evident that NP is able to earn its 17 allowed ROE. There's no significant problems 18 that have emerged for at least the last ten 19 plus years in terms of the company's ability 20 to meet its allowed ROE. 21 This does not mean to say that the 22 company is without risk. I talk in my 23 testimony about TransCanada Mainline. The 24 TransCanada Mainline has a similar experience 25 of meeting its allowed ROE, except for the
Page 158	Page 160
1 DR. BOOTH: 2 A. Correct. 3 MR. JOHNSON: 4 Q. And Dr. Booth, do you have any corrections or 5 updates that you wish to make to your 6 testimony? 7 DR. BOOTH: 8 A. I have no material changes. There was one 9 typographical error where by mistake instead 10 of 2010, I had 20010, but I can't find that at 11 the moment, but nothing of any substance. 12 MR. JOHNSON: 13 Q. Okay. And Dr. Booth, will you confirm that 14 you now adopt your evidence as filed in this 15 proceeding? 16 DR. BOOTH: 17 A. My evidence and the answers to the 18 interrogatory requests, the information, RFIS. 19 MR. JOHNSON: 20 Q. Indeed. Dr. Booth, how would you judge the 21 business risk of Newfoundland Power? 22 DR. BOOTH: 23 A. When I look at utilities, I look at both the 24 short run and the long run dimension. The 25 short run is actually very objective. It's	1 fact that the underlying risk faced by the 2 Mainline has changed dramatically due to a 3 change in gas supply basins in North America. 4 And in particular, throughout 2012, there was 5 a major hearing before the National Energy 6 Board concerned about how to deal with the 7 fundamental changes in the risk facing the 8 Mainline. 9 So it's not simply enough to look at the 10 ability to earn the allowed ROE. You have to 11 look at these long run competitive factors, 12 whether or not in 10 or 20 or 30 years time 13 there'll still be a market for the commodity 14 that's being distributed by, for example, 15 electric distributor and whether the utility 16 can actually return -- get a return of its 17 capital as well as return on capital. So the 18 ability to earn allowed ROE is basically just 19 the return on capital and what's more 20 important is in the long run, the ability to 21 get a return of capital. That's what's 22 severely in jeopardy for the TransCanada 23 Mainline at the moment. 24 I see no threats in terms of Newfoundland 25 Power, simply because there are no substitutes

Page 161	Page 163
1 for the delivery of electricity on the island. 2 So unless there's some fundamental change that 3 destroys the demand for electricity, I see no 4 long run problems in terms of the return of 5 capital and in terms of the return on capital, 6 Newfoundland Power is very similar to every 7 other utility in Canada. 8 I've got this information in the report 9 related to Nova Scotia Power and you heard a 10 couple of days ago that Ms. McShane puts Nova 11 Scotia Power as the highest risk because it's 12 an integrated electric utility, which means 13 they have generation, and until recently, I 14 would have agreed with the judgment that Nova 15 Scotia Power was riskier than Newfoundland 16 Power. But two years ago, they put in place a 17 fuel adjustment mechanism that essentially all 18 the costs to generate electricity in Nova 19 Scotia are now passed through to rate payers 20 and for the last two years that that's been in 21 effect, Nova Scotia Power has earned the high 22 point of its range in terms of allowable ROE. 23 So when you look at these utilities, you 24 can sort of argue at length about the minutia 25 different components of the risk faced by the	1 out at that time that I wasn't going to change 2 my recommendation for the common equity ratio. 3 Now three years later, the Governor of the 4 Bank of Canada has indicated the financial 5 system in Canada is firing on all four 6 cylinders - sorry, all cylinders, and when we 7 look at Newfoundland Power, I can see no 8 reason why it has a 45 percent common equity 9 ratio when its sister companies in the Fortis 10 Group of Companies all have 40 to 41 percent, 11 and I look at other regulated electric 12 companies in Canada and they all have lower 13 common equity. What I recommend is that we 14 take this slowly. I'm not recommending that 15 immediately 5 percent in common equity we 16 replace with debt. I'm recommending that the 17 5 percent in equity be replaced with 5 percent 18 preferred shares. I regard that as a halfway 19 house between going to the same common equity 20 ratios, for example, of Fortis Alberta, but I 21 regard that as a reasonably prudent move to 22 move Newfoundland Power's common equity ratio 23 down to be in line with that of other 24 regulated utilities in Canada. I can't see 25 any objective reason why Newfoundland Power
Page 162	Page 164
1 utility, but I've experienced a lot of rate 2 cases and essentially, it's the regulators 3 that have responded to all of those 4 differences across different utilities. This 5 is the specific policy before the Alberta 6 Utilities Commission, where they specifically 7 adjust the common equity ratio to offset the 8 business risk differences, but it's also 9 evident in the degree of deferral accounts and 10 regulatory protection. 11 So I tend to look at the output of all of 12 this and essentially regard Newfoundland Power 13 as very similar to every other regulated 14 utility in Canada. It's very difficult to 15 objectively see significant differences of 16 risk across them. 17 MR. JOHNSON: 18 Q. Dr. Booth, why are you recommending that 19 Newfoundland Power's common equity ratio be 20 reduced from 45 percent to 40 percent? 21 DR. BOOTH: 22 A. When I provided testimony to you three years 23 ago, as I had discussed, we had not yet fully 24 emerged from the worst recession and the worst 25 financial crisis in 70 years, and I pointed	1 should have a higher common equity ratio. 2 (1:45 p.m.) 3 MR. JOHNSON: 4 Q. Are you recommending 5 percent retractable 5 preferreds? 6 DR. BOOTH: 7 A. No. I notice that Ms. Perry mentioned 8 retractable preferred shares, and to be fair 9 to her, after I talk about my recommendation, 10 I give a quote for the cost of retractable 11 preferred shares, but I would not, in general, 12 recommend a particular type of debt that the 13 company issues, whether it issues unsecured 14 debt, secured debt, medium term notes of 15 whatever, and I wouldn't particularly 16 recommend a type of preferred shares. I gave 17 that reference simply because the cost of 18 retractable preferreds was in the Nesbitt 19 Burns BMO report that I had available. In the 20 beginning of November, Fortis issued 200 21 million dollars of redeemable preferred shares 22 where basically the first five years has a 23 fixed rate, and then they're redeemable after 24 five years at the company's option. I would 25 have no problem with Newfoundland Power

Page 165	Page 167
1 issuing redeemable preferred shares, 2 retractable preferred shares. What I would 3 like to see is that the company have the 4 option to be able to redeem those preferred 5 shares in, say, five years time because I do 6 see that as the capital markets improve, the 7 need to go to this halfway house is going to 8 be removed and in the long run, I would expect 9 Newfoundland Power to have the same capital 10 structure as other utilities, 40 percent 11 common equity and about 60 percent debt. So I 12 view this as a halfway house, and I wouldn't 13 like to see Newfoundland Power issue preferred 14 shares that it could not at some subsequent 15 date redeem. 16 MR. JOHNSON: 17 Q. Dr. Booth, how would you normally assess the 18 fair return on equity? 19 DR. BOOTH: 20 A. Normally, and I would define what normally 21 means, you look at utilities and you look at 22 the risk premium for the utilities based upon 23 the market risk premium and based upon the 24 relative risk ranking of the utilities. So 25 when I look at - and here I'll qualify. There	1 there is simply that the compound rate of 2 return extracts from the annual fluctuations 3 in the rate of return. So I go through in my 4 discussion Appendix B, if you got a stock 5 that's worth \$100.00 and it doubles to 6 \$200.00, you get 100 percent rate of return. 7 The next year if it drops by 50 percent back 8 to \$100.00, you lose 50 percent. The 9 arithmetic average of those two, plus a 10 hundred or minus 50 is plus 25 percent. Yet 11 the stockholder or the investor at the end of 12 that says, well, I haven't earned anything, I 13 started out with 100, finished with 100. The 14 compound rate of return takes out those annual 15 fluctuations. So when we look at pensions, 16 for example, we look at these long run rates 17 of return, compound rates of return. When 18 we're looking to regulate utilities and when 19 we're doing capital budgeting or investment, 20 we look at the expected rate of return over a 21 one year horizon. So we tend to look at 22 arithmetic rates of return. So in Canada, 23 long run compound rates of return 10 percent, 24 as they have in the US. One year expected 25 rates of return are closer to about 11.22
Page 166	Page 168
1 were several comments by Dr. Vander Weide 2 about CAPM. It seemed like every opportunity 3 he was saying, CAPM, CAPM, and I start out, 4 this is not CAPM, it's a question of looking 5 at the historic data in terms of what returns 6 are being earned. So the next - who's 7 controlling the computer. Okay, fine. So I 8 start out with looking at historic returns in 9 the US and Canada, and I note that Dr. Vander 10 Weide looks at the same thing, looks at 11 historic returns. We tend to look at the 12 capital market as a whole to extract or get 13 away from particular experiences, particular 14 sub-sectors of the economy. So you might 15 expect, for example, energy to have very high 16 rates return for the last ten years given the 17 significant increases in oil prices and 18 commodity prices. We look at the capital 19 market as a whole because these individual 20 risks get diversified away in the capital 21 market. So when we look at Canada, the 22 evidence is that the long run return on the 23 TSX equities has been about 11.22 percent on 24 an arithmetic basis. On a compound basis, 25 it's been 9.65 percent and the difference	1 percent, and generally, the difference is 2 about 150 to 200 basis points. If we subtract 3 out the similar experience of a bond investor, 4 the average - the risk premium earned on an 5 arithmetic basis has been just over 4.5 6 percent in Canada, 5.7 percent in the United 7 States, and that's a little bit low at the 8 moment because as most of us are aware, the 9 equity markets haven't been particularly good 10 relative to the bond market over the last ten 11 years. If you believe in experienced returns 12 and you believe you can use those without 13 judgment, the experienced returns indicate 14 that (a) the risk premium in Canada has been 15 about 4.5 percent, and (b) the US has 16 experienced significantly higher risk 17 premiums, and if you look at the bottom - 18 perhaps I didn't copy it, but if you look at 19 my testimony on this Schedule 8 in Appendix B, 20 the observed evidence is a US capital market, 21 the equity market has been riskier than the 22 Canadian capital market. Not by a lot, but 23 enough to make a difference. So I tend to 24 look at the US economy as being, I hate to say 25 it, more competitive than in Canada. We have

Page 169	Page 171
1 a lot of protection in Canada, not just to 2 regulated utilities, but right across the 3 Board. We've traditionally had a lot of 4 restrictions in Canada in terms of investing 5 capital within Canada. We've had restrictions 6 on Canadian outflows in terms of pensions. So 7 the record, the historic reflects that degree 8 of protection within Canada. Some of that is 9 now being removed. In particular, pension 10 funds can now invest in international equities 11 without any restriction, whereas as recently 12 as four or five years ago we had a restriction 13 in pension funds. There are still 14 restrictions in terms of taxes, withholding 15 taxes and things, but I think a lot of these 16 differences are being removed, which is why 17 generally I've moved my market risk premium 18 estimates up. I think the long run equity 19 return in Canada reflects the impact of those 20 restrictions, which have now basically been 21 removed, but when we look at this, we've got 22 to sort of say, well, this is long run, this 23 is an average risk premium over the last 75/80 24 years; does this reflect what's going forward, 25 and there in my testimony - oh, I do have the	1 respondents, and one of the interesting things 2 is looking at the US where he has the most 3 respondents, you can see the decline they've 4 got from this survey basically from the 6.3 5 percent average market risk premium in 2008, 6 through to the latest one, summer 2012 at 5 7 percent. So what I've been doing since 2008 8 and 2009, saying, well, I have my judgment, I 9 think the market risk premium has been about 5 10 percent, but I'm not going to fight 7,000 11 respondents to a survey when they judge it to 12 be a little bit higher. So I'm using a 5 to 6 13 percent market risk premium, which reflects 14 the opinion of not just me, but the opinion of 15 what I would say is the broader financial 16 community. The second element in terms of a 17 normal assessment of risk is the beta 18 coefficient, and let's get some things really 19 straight, the beta coefficient measures how 20 closely a security moves with the market. If 21 the beta coefficient is zero, it means you can 22 hold that security and there is no market 23 risk. The market goes up, security generally 24 doesn't change. The market goes down, the 25 security generally doesn't change. If you got
Page 170	Page 172
1 volatility there. So it just indicates 2 historic volatility in Canada as being lower 3 than in the United States. Let's see - I 4 think we've gone one too far. 5 MR. JOHNSON: 6 Q. Is it the next - 7 DR. BOOTH: 8 A. I'm sure I had the Fernandez survey. In 2008, 9 when I came here, I had the latest results by 10 Fernandez at the IESE Business School in 11 Barcelona. It started to survey professors of 12 finance in terms of what they felt the market 13 risk premium was, and I said to you, don't 14 necessarily believe me, believe the answers of 15 hundreds and hundreds of university professors 16 across North America. Since then, he's 17 expanded his survey - in fact, I think he's 18 intending to sell it sooner or later once he 19 gets enough people who are using it, but he's 20 expanded that survey to include not just 21 university professors, but also financial 22 analysts working for investment banks and 23 companies doing capital budgeting decisions 24 where the need the cost of capital. That 25 survey has now thousands - I think 7,000 plus	1 a high beta portfolio, it means, in effect, 2 that when the security market, the capital 3 market, goes up, that security would tend to 4 go up more than the other securities, and 5 similarly when the market crashes, that 6 security would go down more than other 7 securities. This is the standard way of 8 measuring the risk of securities from a 9 capital market perspective. It's a way in 10 which we look at securities for any investor 11 that holds more than about a dozen or 20 12 securities, because as long as you hold more 13 than about 20 securities, and they're not all 14 bank stocks or they're not all utilities, or 15 they're not all tech stocks, as long as you 16 hold a diversified portfolio, what matters to 17 you is market risk, and when we look at 18 utilities, what we see, and this is just the 19 average utility beta with or without 20 TransAlta, and whether or not TransAlta is 21 still a utility, it depends upon your 22 perspective because they've essentially sold 23 their transmission grid to AltaLink about - I 24 think it's about ten years ago, and the bulk 25 of their income is coming from long term power

Page 173	Page 175
1 purchase contracts in Alberta because they're 2 still one of the major generators in Alberta, 3 and all of that output is being sold on - 4 almost all output on power purchase contracts. 5 So when you look at that, what you see is that 6 utilities were reasonably stable at about .5, 7 a little bit more until the financial crisis, 8 and then we see a dramatic drop. Sometimes I 9 get very clever cross-examination where they 10 say, look, this is what your estimates 11 indicate. This is exactly what the estimates 12 indicate. These are just estimates. These 13 are estimates of what exactly happened over 14 that five year period. Why the betas 15 collapsed for the utilities was because 16 they're low risk. The stock market collapsed 17 and the prices for utilities didn't collapse. 18 So during that period they demonstrated their 19 low risk status. So as the effect of the 20 horrific financial crisis that we went through 21 in 2008 and 2009 disappears, the effect of 22 that in the estimation wind gradually 23 disappears as well. It's that old Zen 24 philosophy about, "does a tree that falls in a 25 forest make any noise if there's no one there	1 risk of holding utilities at about 45 to 55 2 percent of the market, even though the current 3 beta estimates are significantly lower than 4 what I'm using for my forward estimates. 5 MR. JOHNSON: 6 Q. For the record, that was Appendix C, Schedule 7 3 that you were just referring to, and you're 8 now going to talk about Appendix C, page 11. 9 Dr. Booth, do you wish me to proceed now or 10 are you finished? 11 DR. BOOTH: 12 A. I'm still going. 13 MR. JOHNSON: 14 Q. Dr. Vander Weide criticized your - 15 DR. BOOTH: 16 A. I haven't finished answering that question, to 17 be honest. 18 MR. JOHNSON: 19 Q. Oh, I'm sorry, I'm sorry. 20 DR. BOOTH: 21 A. Utility witnesses tend to use adjusted betas, 22 which means they basically take the actual 23 beta that we observe, and as we went through 24 with Ms. McShane, there's very little 25 difference of opinion between Ms. McShane and
Page 174	Page 176
1 to hear it". It's the same in these beta 2 estimates. You look at a five year window to 3 estimate whether there's any risk. If nothing 4 happens in that five year window, you don't 5 estimate it, and the reason why the betas 6 collapse was because something very 7 significant happened. Lehman Brothers went 8 bankrupt, the US basically precipitated a 9 global financial crisis because of the 10 collapse of its financial system, and that's 11 picked up in the beta estimates throughout 12 that period when we had a severe financial 13 crisis. As the financial crisis disappears, 14 the impact of that on the holding of utility 15 stocks disappears, and impact on the beta 16 coefficients disappear, but it doesn't mean 17 that the low risk status of utilities 18 disappears just because we don't have a 19 financial crisis in the collapse during a five 20 year estimation period. So as the effect of 21 the financial crisis disappeared, the betas 22 for utilities have tended to go back. I look 23 upon betas, I don't use these actual estimates 24 - I look upon betas going forward. I see no 25 reason to change my long run estimate of the	1 I what the actual betas are. The question is 2 what do we do with them. Ms. McShane adjust 3 them to 1, and she said that's the standard 4 practice. It isn't the standard practice, and 5 to cope with that, what I've done here in 6 addition to my beta estimates, I've captured 7 the beta estimates from the Royal Bank of 8 Canada, the beta estimates from Google, and 9 the beta estimates from Yahoo for the US 10 utilities. We might look at that and say, 11 well, Google, Yahoo, that's something my son 12 uses, they're not serious, but, in fact, the 13 data comes from Standard and Poors Compustat 14 Capital IQ, and they're very, very reliable 15 providers of financial data because they get 16 the data from the same place as everybody 17 else. I present these simply to indicate that 18 most people, or at least a large number of 19 basic data providers, do not adjust betas in 20 the way that Value Line adjust them, and they 21 do not adjust betas in the way that most 22 utility witnesses indicate. That doesn't mean 23 to say they shouldn't be adjusted. I adjust 24 mine. I use judgment to suggest where the 25 forward beta is, but the empirical research

Page 177	Page 179
1 that we've got on bet adjustment techniques 2 for utilities is they don't adjust towards 3 one, they adjust towards the average beta of 4 utilities or the average risk of utilities, 5 which makes sense, not towards the market. 6 Nobody expects Canadian utilities, Emera or 7 Fortis, to become equivalent to the rest of 8 the Canadian capital market. That would mean 9 that the regulators aren't doing their job, 10 and I just can't see that happening. 11 MR. JOHNSON: 12 Q. Dr. Booth, Dr. Vander Weide criticizes your 13 CAPM estimates. What is your response? 14 DR. BOOTH: 15 A. You have to separate CAPM from what I regard 16 as benchmark returns. There's two components 17 to the CAPM. The first of all is what is the 18 market risk premium, or more to the point, 19 what is the expected return on the capital 20 market as a whole. You then look at do betas 21 measure everything that's necessary to assess 22 the relative risk of the utility. In my 23 testimony, I've got the estimates from TD 24 Economics, I've got Estimates from the Royal 25 Bank of Canada, three years ago I had	1 return to an arithmetic return. In Appendix 2 B, I show how to do that. Generally, you add 3 150 to 200 basis points. So TD Economics says 4 long run return of 7 percent, which means 8.5 5 to 9 percent for the capital market. When you 6 start looking at what is a fair rate of 7 return, you have to start with what is a fair 8 rate of return for the capital market as a 9 whole, and then you work back to work out the 10 relative risk of a utility. We're not looking 11 at lower long run rates of return in the 12 equity market. If we weren't, we wouldn't 13 have a pension crisis in Canada, and we 14 wouldn't have a pension crisis in the United 15 States. Incidentally, I work for pension 16 funds as well as I work and provide testimony 17 in regulator hearings. Here I'm constantly 18 criticized for being too low. Surprise, 19 surprise, when I do work for pension funds, 20 they criticize me for being too high. They 21 think my estimate of the long run return on 22 the capital market that I'm using here in my 23 market risk premiums are too high. In fact, 24 you have to think about the fact that if 25 utilities in Canada earned 10.5 percent
Page 178	Page 180
1 estimates from Mercer - in an information 2 request, we got estimates from Mercer for 3 currently. These are estimates of what is the 4 long run expected rate of return on the equity 5 market. That benchmarks everything we do. TD 6 Economics says the long run return on the 7 equity market is about 7 percent. Three years 8 ago, Mercer said it was 8.5 percent. There's 9 no question that the estimates put forward by 10 independent people that are looking at what 11 can we expect in the equity market have come 12 down significantly over the last three years. 13 Why are these estimates important; they're 14 important because every single person in 15 Canada who has a defined benefit pension plan, 16 somebody has to go through and work out from 17 these assets, can we generate enough income to 18 pay for the liabilities on that pension fund. 19 That's why Mercer does this. TD Economics 20 don't say why they do it, but my opinion would 21 be that's primarily for looking at pension 22 plans and the long run performance on 23 investments. To convert that to something 24 useful for a rate of return hearing, we have 25 to convert that compound or long run rate of	1 recommended by company witnesses here, what do 2 you think that would do if that was a 3 realistic estimate of the long run rates of 4 return earned for equity funds in Canada, what 5 it would do for defined benefit plans. If 6 that was a believable estimate, we wouldn't 7 have any problems in our pension funds in 8 Canada, nor would they have in the United 9 States. So that's why I say when we look at 10 CAPM, we have to separate out what is nothing 11 to do with CAPM, which is just a long run 12 return on the equity market, and then how do 13 you convert that to a relative risk for a 14 utility. There is absolutely no denying that 15 utilities are low risk. I don't think anybody 16 would say utilities are riskier than the 17 capital market. So it's merely a question of 18 how low risk are they, and how much you bid 19 down to say 9 percent on the equity market as 20 a whole, to a rate of return consistent with a 21 low risk stature of utilities, and here the 22 risk of utilities has changed over the last 40 23 years. I'm sure members of this Commission 24 are probably aware that we used to have 25 historic test years in Canada, but as far as

Page 181	Page 183
1 I'm aware, there's no significant utility in 2 Canada on historic test year. Fuel pass 3 throughs, forward test years, all of these 4 measures have reduced the risk facing 5 utilities. In fact, if you look at my 6 testimony in Appendix C, you'll see that when 7 we go back to the 60s and 70s, utilities were 8 a higher risk than they are now, and that's 9 because we didn't have the amount of regulated 10 protection that utilities are deserving now. 11 So you can't look back at these long run 12 returns on utilities and say, well, they've 13 been to high and they don't reflect capital 14 market conditions. What they do reflect is a 15 much higher risk 30/40 years ago. 16 MR. JOHNSON: 17 Q. Dr. Booth, the term "normal" has been used. 18 What do you mean by normal? 19 DR. BOOTH: 20 A. Mr. Chairman asked this of Ms. McShane. I do 21 not regard current - the only thing abnormal 22 about Canadian capital markets at the moment 23 are the depressed nature of the long term 24 Canada bond yields. The Canadian capital 25 market at the moment, as the government has	1 see that huge spike and the Kansas City Fed 2 has a stress index that shows a similar spike. 3 What that indicates, that's an amalgam of 4 indicators of stress within the financial 5 system, it's not just the short-term spreads 6 that I document or the long-term spreads, it 7 also indicates things like are the banks under 8 stress, what's happening to bank stock prices, 9 those sorts of things. And what is remarkable 10 is the huge stress the financial system was 11 under during the financial crisis, and you can 12 see by the time the company evidence was filed 13 in 2009, I think it was May 2009, things were 14 improving, but there was still a huge stress 15 in the financial system. By the time that we 16 had this hearing in 2009, the US economy had 17 started to grow, Canada was beginning to come 18 out of recession and there was enormous 19 measures taken by the central banks to 20 increase the liquidity and the state of the 21 financial marks, and you can see that in the 22 fact that that financial stress dropped 23 dramatically. Positive indicates stress; 24 negative indicates loose or easy financial 25 market conditions. And we've had easy
Page 182	Page 184
1 said, is firing on all cylinders. The equity 2 market has recovered. There's absolutely no 3 problem accessing capital in Canada, either 4 the bond market or the long market, but we 5 have very depressing long Canada bond yields. 6 I would talk about my operation, Twist 7 Adjustment. I regard any long term bond yield 8 for the Government of Canada below about 3.8 9 percent, as indicating abnormal, unusual 10 capital market conditions, and here, I think, 11 Ms. McShane and I are entirely in agreement. 12 She used 4 percent ... (TECHNICAL DIFFICULTY) 13 (OFF RECORD) 14 (RESUME - 2:00 p.m.) 15 MR. JOHNSON: 16 Q. Okay, the next graph you want to see, Dr. 17 Booth. 18 DR. BOOTH: 19 A. Canadian Financial Conditions Index. 20 MR. JOHNSON: 21 Q. Okay, and that's from Booth testimony, page 22 30. So the question is what do you mean by 23 "normal"? 24 DR. BOOTH: 25 A. Okay, so when we were here in 2009, you can	1 financial market conditions since then because 2 of the actions of policy makers. So we have 3 easy financial conditions, we've recovered 4 from the financial crisis. The only thing 5 that's different is this very low long Canada 6 bond yields and I'll talk about operation 7 Twist later on, but the fact is when you look 8 at long Canada bond yields of 2.5 percent, you 9 have to say, well if I'm in the top tax 10 bracket in Canada, 46 percent--for convenience 11 let's call it 50 percent, that 2.5 percent is 12 fully taxable, I get 1.25 percent. Inflation 13 is 2 percent, which means buying long Canada 14 bonds at the moment for any taxable investor 15 means you're guaranteed to lose .75 of a 16 percent in purchasing power for 30 years, that 17 is not an equilibrium interest rate, it's not 18 an interest rate as I would discuss that is 19 determined by ordinary investors. It's an 20 interest rate that's determined by what the 21 Royal Bank of Canada calls the global policy 22 marker, which is basically the Federal Reserve 23 Board and the European Central Bank, not the 24 Bank of Canada because the Bank of Canada 25 hasn't intervened to that extent in the

Page 185	Page 187
1 Canadian financial markets. So what I mean by 2 normal is everything, what we have at the 3 moment, except in long Canada bond yields well 4 above 2.5 percent, I say 3.8 percent, Ms. 5 McShane says 4 percent, but I don't regard 6 that difference as being material. 7 MR. JOHNSON: 8 Q. Okay. Dr. Booth, what did you recommend in 9 2010 for an automatic adjustment formula? 10 DR. BOOTH: 11 A. Before this commission in 2009, I talked about 12 liquidity of the bond market and the fact that 13 the board should look through the then high 14 corporate bond yields because we didn't have 15 any way of assessing how much information is 16 there in corporate bond yields to assess risk 17 from an equity perspective. A lot of it was 18 liquidity simply because the trading floors of 19 a lot of the banks was selling off bonds 20 because they needed to generate cash urgently 21 to survive because the amount of financial 22 stress, in the US financial system in 23 particular, was huge, so most of the banks 24 stopped holding inventory of bonds and making 25 a market, they were selling the bonds in order	1 that to basically mimic what regulators were 2 doing during the financial crisis in the full 3 knowledge that over a business cycle this 4 credit spread adjustment should average out to 5 zero. You're looking at the difference in the 6 credit spread for A rated bonds from average 7 and by definition over a long period of time, 8 that becomes zero. So I recommended that 9 before the NEB and the Regie, it does make a 10 difference. This data - 11 MR. JOHNSON: 12 Q. Just for the record you're referring to 13 testimony now at page 68? 14 DR. BOOTH: 15 A. That's correct. This is the data provided by 16 Ms. McShane, the ATC is the forecast long 17 Canada bond yield used by the National Energy 18 Board to set its ROE, the spread is Ms. 19 McShane's estimate of the spread and I use 20 this data simply to focus on the big issues, 21 rather than focusing on data. So NEB is the 22 actual National Energy Board allowed ROE and 23 Booth is simply the NEB formula plus a fifty 24 percent adjustment to credit spreads. And the 25 importance of this is simply that in 2009 we
Page 186	Page 188
1 to generate cash and survive. Since that time 2 and since looking at the decisions that were 3 made during 2009, we have information for the 4 Bank of Canada that about 37 percent of the 5 spread in corporate bonds is due to 6 predictions of default and risk. The bulk of 7 it is due to liquidity, so that answers 8 something that I couldn't answer three years 9 ago. Also since then we've had an assessment 10 that corporate bond spreads to provide some 11 information and then almost universally in 12 2009, when I look at regulated decisions, they 13 looked to credit spreads. This board mentions 14 credit spreads, the AUC specifically mentions 15 50 basis points increase in credit spreads. 16 So before the Regie in 2010, before the 17 National Energy Board, Ms. McShane and I both 18 recommended an automatic adjustment formula. 19 Ms. McShane recommended a 50 percent 20 adjustment to forecast long Canada bond yields 21 and 50 percent adjustment to credit spreads, 22 similar to Mr. MacDonald. I recommended the 23 continued 75 percent adjustment to forecast 24 long Canada bond yields and added the 50 25 percent adjustment to credit spreads. I did	1 did have a lot of financial stress and 2 universally utilities were saying the long 3 Canada bond yield was going down, allowed ROEs 4 going down, borrowing costs are going up. The 5 automatic adjustment formula isn't working. 6 And to some extent that was true, it was a 7 period when there was intense stress in the 8 financial system. Adding this spread 9 adjustment adjusts for that problem that was 10 put forward in 2008 and 2009. We can see that 11 if the NEB had allowed this credit spread in 12 2009, you would have had a pick up of 82 basis 13 points for the 2009 test year, because by 2008 14 you were then getting a lot of financial 15 stress. Lehman failed in September of 2008. 16 If they're then done in 2009, the spreads were 17 still high and you would have gotten an 18 allowed ROE of 8.92 percent, and that is 19 within 8 basis points of what this Board 20 allowed Newfoundland Power for 2010 and as Ms. 21 Perry said, she didn't regard 8 basis points 22 as material. I would say that if this Board 23 or if you used a formula like this for 2010, 24 the result would have been very close to what 25 this Board actually allowed in terms of fair

Page 189	Page 191
1 ROE, might have been 10 basis points 2 difference. So into 2010, both Ms. McShane 3 and I believe that an automatic adjustment 4 formula gave valid answers in terms of the 5 fair ROE, and the Regie, the NEB hearing never 6 went through a hearing, it was settled between 7 the parties. In the Regie, it did go to a 8 decision and if you go to the next graph, the 9 Regie accepted my formula and I think they 10 accepted it mainly because when you look at 11 the decision, they said accepting Booth's 12 formula, if you back test it, they didn't use 13 the words "back test it", but it basically 14 goes back and except for this minor 15 fluctuation caused by the business cycle, it 16 gives the same award, so the Regie would have 17 gone, given with its previous formula, which 18 is to say it doesn't say that was the Regie 19 decided in 2005 was wrong or what it decided 20 in 2000 was wrong, so it's important that when 21 you use a formula or you change it, that it 22 actually gives the similar sort of results 23 that were regarded as fair and reasonable when 24 the Board sat down and gave its decision on 25 what a fair ROE was. The Regie rejected Ms.	1 France has been downgraded from AAA, 2 practically every country in Europe, except 3 Germany in the UK have been downgraded. And 4 then in August 2011, the Federal Reserve did 5 something that was a bit of a surprise, they 6 came out and said we will engage in 7 quantitative easing. Now, as economists we 8 have lots of fancy words for certain things, 9 but this basically meant they're going to 10 print money. They're just going to print 11 money and buy government bonds, and right now 12 the US Federal Reserve is committed to buy 85 13 billion dollars of securities every month, 14 that's about 45 billion dollars worth of 15 mortgage back securities and 40 billion 16 dollars worth of government securities. So 85 17 billion dollars a month of money is being 18 injected into the US financial system by the 19 Federal Reserve. If you multiply by 12, 20 you're looking at a trillion dollars a year, 21 that's more than the US deficit. It's raised 22 huge controversy within the United States in 23 terms of future inflation, but what it has 24 done was specifically to twist the yield curve 25 and by that we mean to push down long-term
Page 190	Page 192
1 McShane's formula because it didn't go back 2 and give similar ROEs to what the Regie had 3 decided was fair and reasonable. So that was 4 one criteria that the Regie pointed out. And 5 the second one, as I've already pointed out, 6 is that during the financial crisis, this did 7 give an extra return similar to what 8 regulators were given in the aftermath of the 9 financial crisis. 10 MR. JOHNSON: 11 Q. And you were referring to Booth testimony, 12 page 69 in that graph, in your comments. Dr. 13 Booth, what, if anything, changed in 2011? 14 DR. BOOTH: 15 A. The world. The world changes in 2011. If 16 under cross-examination in 2009 Mr. Kelly had 17 asked me, "Dr. Booth, do you think the US 18 government is going to be downgraded from 19 AAA?" I would have said "No, it's never going 20 to happen." In July of 2011, S&P downgraded 21 the United States government below AAA, that 22 wasn't the only impact, the euro crisis 23 started buzzing and we basically had 18 months 24 to two years of problems in the euro crisis 25 that have dramatically increased tension.	1 borrowing rates, usually monetary policy only 2 works on what we call the short end of the 3 yield curve, the money market. This was 4 specifically done to lower long-term borrowing 5 rates, and the reason for that was simply to 6 get mortgage rates down in the United States, 7 to bail out the US housing sector, so people 8 could renegotiate their mortgages and put more 9 money into their pockets and basically stop 10 the flood of foreclosures and the problems in 11 the US housing market. This has changed 12 everything over the last 18 months. If we 13 look at the next slide, this was the Royal 14 Bank of Canada's forecast, June, 2011, so this 15 was immediately before these tumultuous 16 events, when I said the world changed. And I 17 bring this up for two reasons, the first is if 18 you look at the 30 year rate in Canada, RBC at 19 that time was pointing out or was forecasting 20 the long term Bond yields in Canada would get 21 back to the high 4.5, 5 percent range. 22 Essentially it was a back to normal forecast, 23 expected the economy to recover, interest 24 rates to increase because the need for 25 stimulus would be removed and that Canada

Page 193	Page 195
1 would be back to normal. They also 2 forecasted, if you notice that US interest 3 rates would be significantly higher and that's 4 been a prominent feature of the capital 5 markets for basically the last seven or eight 6 years. The basic opportunity cost in the 7 capital market is the long-term government 8 bond yield and that's been consistently higher 9 in the US than it has in Canada since we've 10 solved our financial problems. It's one of 11 the reasons why I look at the US and say, 12 well, even if the utilities are exactly the 13 same in risk, they're coming from a US capital 14 market and rates of return are higher in the 15 US, not just historically in terms of risk 16 premiums, but also objectively in terms of 17 current interest rates. And this is not 18 something you need an expert witness on, all 19 you have to do is pick up a newspaper. So 20 what we saw in the summer of 2011 was that 21 this world changed completely. Long-term 22 interest rates collapsed and that's why when I 23 look at what's going on at the moment, you can 24 see that interest rates roundabout 4, 4.5 25 percent and then in the summer of 2011, they	1 investment because we get the dividends and we 2 get the dividend tax credit which makes the 3 after tax cost of investors holding preferred 4 shares, it's a very attractive investment. 5 It's not attractive for foreign investors 6 because they don't get the dividend tax credit 7 and they have to pay withholding tax when the 8 dividend flows outside of Canada. So 9 preferred shares are essentially a made in 10 Canada interest rate. It's not affected by 11 all these foreign investors coming in and 12 buying government Canada bonds and you can 13 clearly see that in July the yield on those 14 preferred shares relative to long term 15 government of Canada bonds increased. So how 16 much do I put as the impact to the global 17 policy maker? I think long term yields on the 18 Canadian bond market are at least 80 basis 19 points less than they should be, but for the 20 actions of the global policy maker. I would 21 regard about 3.8 percent as a cyclically low 22 value for the government Canada bond yield, 23 consistent with the stage in the business 24 cycle. I do not regard 2.5 or even forecast 25 rates of 3 percent as being that useful. So
Page 194	Page 196
1 dramatically dropped and they're now down to 2 2.5 percent. I don't regard 2.5 percent as 3 what I call and equilibrium interest rate 4 determined by investors trading off risk and 5 return, which is the basic underlying 6 principle between, for the capital asset 7 pricing model, it reflects the actions of the 8 Federal Reserve and the European Central Bank 9 and the fact that Canada is a AAA country, has 10 had a significant influx of foreign--Central 11 Bank money, sovereign risk money coming into 12 Canada by Government of Canada bonds. So I 13 would not come and say that Newfoundland Power 14 should have a fair ROE determined by the 15 actions of the Federal Reserve or other 16 investors investing in long term Canada bonds. 17 What I would look at is how much of the change 18 in the long term bond has been caused by the 19 actions of these global policy makers. When I 20 look at what's happened since the summer of 21 2011, the orange line is the spread on A bonds 22 and that basically hasn't changed very much. 23 The purple line is the yield on the Toronto 24 Stock Exchange preferred share index. 25 Preferred shares are distinctly a Canadian	1 when I look at an adjustment mechanism, I 2 would regard a 50 percent adjustment to 3 corporate spreads as being reasonable. It's 4 been accepted by the Regie, by the Ontario 5 Energy Board, is what exactly Ms. McShane 6 recommends. The only adjustment I've made 7 since 2010 is I've put a floor on that because 8 I don't think that any forecast long Canada 9 bond yield below 3.8 percent or so reflects a 10 trade off or risk verses return by ordinary 11 investors. It reflects global policy makers 12 and the actions of the central banks. And I 13 don't think those should directly influence 14 the fair rate of return for a utility. 15 MR. JOHNSON: 16 Q. Doctor, and for the record that you were 17 speaking then of that graph which appears at 18 your testimony at page 55. Dr. Booth, what 19 value to you place on estimates from the 20 United States financial markets in general and 21 in US utilities in particular? 22 DR. BOOTH: 23 A. First of all when we come up with estimates, 24 we always make adjustments. That's what the 25 CAPM is, it's an adjustment. You look at the

Page 197	Page 199
1 long run return on the capital market and then 2 you adjust it, downwards for the relatively 3 low risk of utilities. You can draw estimates 4 from any capital market and as long as you 5 make the appropriate adjustments, then they're 6 useful. That's what other regulators have 7 said. It's not a question that US evidence 8 isn't useful, it can be useful, but the 9 question is do you take it without making 10 adjustments or you make adjustments. In my 11 judgment, there's three things in looking at 12 US, first of all undeniably long term bond 13 yields are higher in the United States, 14 government treasury yields are at least 50 15 basis points than they are in Canada, so you 16 start out saying, well the rate of return 17 should be higher in the US. You then look at 18 market risk premiums, historic evidence of the 19 market risk premiums being higher in the US. 20 I think a lot of that has gone away, how much 21 of it is gone away is difficult to work out, 22 but certainly if you believe past experience 23 is useful for the future, undeniably market 24 risk premiums are being higher in the United 25 States. Thirdly, you look at the relative	1 Canadian utilities. So before the BCUC in 2 2009, I said you can use US evidence, but you 3 have to adjust, and at that time I said US 4 estimates need to be downward adjusted by 90 5 to 100 basis points. The US downwardly-- 6 sorry, the BCUC downwardly adjusts Ms. 7 McShane's DCF estimates by 50 to 100 basis 8 points and the basis of the downward 9 adjustment was the fact that I felt that long 10 term bond yields were higher in the US, the 11 market risk premium was higher in the US and 12 probably the relative risk of utilities is 13 higher in the US. So the issue is not whether 14 you can get information from the US, the 15 question is whether a reasonable person would 16 look at that and feel that there is 17 adjustments that need to be made. In my 18 judgment the US is a riskier capital market, 19 they're more competitive than we are and I 20 don't regard that as a bad thing. I mentioned 21 three years ago that the Bank of Canada or our 22 Canadian banks were extremely stable, recently 23 the governor of the Bank of Canada was 24 appointed as the financial stability Board 25 before the Bank for International Settlements
Page 198	Page 200
1 risk. When I look at the betas for US, what 2 I've done is look at the companies that Ms. 3 McShane in the past has regarded as low risk, 4 the companies that Dr. Vilbret has regarded as 5 low risk and Dr. Vilbret works for a company 6 called Brattle Group, and I took the 7 intersection of those and I did that to get 8 the very lowest risk US utilities because 9 almost every US witness that has come into 10 Canada has admitted that US utilities are 11 riskier, so they formed low risk samples. Dr. 12 Vilbret does this, Ms. McShane does this. And 13 in my appendix C, I look at the betas of the 14 lowest of the low risk and they're equivalent 15 to what they are in Canada. That does not 16 mean to say that a typical US utility is the 17 same as a typical US utility in Canada. What 18 it means is if you do enough screens, you can 19 come down to some group that is equivalent in 20 risk to Canada and that's about five or six 21 companies that Ms. McShane has used. In this 22 hearing she has broadened her sample and on 23 her estimates the risks of those US utilities 24 is twice the risk of the Canadian utilities, 25 their beta co-efficients are twice the	1 and he's now been appointed to the governor of 2 the Bank of England. I can't conceive of a US 3 regulator being moved to Switzerland or to be 4 head of the BIS looking at bank regulation. 5 US bank regulation failed in 2009, there's 6 absolutely no question about that. An it's an 7 attitude in the United States that they allow 8 competition which we generally don't do in 9 Canada. We have enough competition, but we 10 regulate things a lot more than they do in the 11 United States. So, I think that--I have no 12 problem with looking at US evidence as long as 13 you make the appropriate adjustments to make 14 it relevant to the Canadian experience. And 15 in this you have to recognize our government 16 moved into surplus in 1997 after a huge 17 recession in the mid '90s when we got our 18 deficits under control. The US has yet to do 19 that. Europe is going through that at the 20 moment. The benefit that we've got from that 21 has been low interest rates in Canada. And 22 disregarding that benefit, I don't think makes 23 any sense whatsoever. 24 MR. JOHNSON: 25 Q. Dr. Booth, what is your recommendation in

Page 201	Page 203
1 this proceeding? 2 DR. BOOTH: 3 A. My overall recommendation is that Newfoundland 4 Power is a typical Canadian utility that 5 protected by regulation and I don't say that 6 in a negative way; I think of that as a good 7 way. The flip to that is that when we lower 8 the risk of regulating utilities, the overall 9 cost of capital goes down and that's a benefit 10 to ratepayers. I hear US witnesses coming in 11 and basically saying, well, we ignored the 12 regulated protection, we want US rates return, 13 US ROEs, US common equity ratios. I would 14 judge that to be the fact that would get 15 the worst of the bargain. We'd get all the 16 protection that protects the utility and yet 17 we don't get the benefit of the lower overall 18 cost of capital. I judge Newfoundland Power 19 to be typical to that and I would judge this 20 Board, to be absolutely honest, to be typical 21 of a Canadian regulatory Board. You can see 22 that in the extensive use of deferral accounts 23 right the way across Canada. I would say it's 24 about time that we recognize the fact that 25 Newfoundland Power has an extensive--has a	1 KELLY, Q.C.: 2 Q. For today. 3 CHAIRMAN: 4 Q. Okay, we're adjourned.
Page 202	Page 204
1 common equity ratio that extends the typical 2 rate for electric utility in Canada and I 3 would recommend the five percent common equity 4 be replaced with preferred shares; that this 5 Board puts in place an adjustment mechanism 6 and there's no reason why there shouldn't be a 7 reasonable adjustment mechanism and that the 8 Board recognize that rates return, allowed 9 ROEs are lower in Canada than they are in the 10 United States. 11 MR. JOHNSON: 12 Q. Does that conclude? Thank you. 13 CHAIRMAN: 14 Q. Sir? 15 MS. GLYNN: 16 Q. Mr. Chair, we had talked about starting some 17 cross-examination, but I think we went a bit 18 longer than we - 19 KELLY, Q.C.: 20 Q. Yeah, that was kind of assuming that we were 21 going to finish the chief around two. 22 MS. GLYNN: 23 Q. So I think we can conclude for today. 24 CHAIRMAN: 25 Q. Want to adjourn?	1 CERTIFICATE 2 I, Judy Moss, do hereby that the foregoing is 3 a true and correct transcript of a hearing in the 4 matter of Newfoundland Power Inc.'s General Rate 5 Application heard on the 17th day of January, 2013 6 at the offices of the Board of Commissioners of 7 Public Utilities, St. John's, Newfoundland and 8 Labrador and was transcribed by me to the best of 9 my ability by means of a sound apparatus. 10 Dated at St. John's, NL this 11 17th day of January, 2013 12 Judy Moss 13 Discoveries Unlimited Inc.

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100:1 2.31 [1] 102:3 2.4 [1] 57:15 2.5 [7] 80:15 184:8,11 185:4 194:2,2 195:24 2.57 [1] 86:16 2.7 [6] 48:10,23 53:25 58:3,11,19 20 [9] 51:19 54:1 84:1 128:20 138:23 154:9 160:12 172:11,13 200 [3] 164:20 168:2 179:3 2000 [1] 189:20 20010 [1] 158:10 2002 [2] 73:5 88:9 2005 [1] 189:19 2007 [7] 72:20 73:3,5,9 84:21 88:9 118:7 2008 [8] 1:17 170:8 171:5 171:7 173:21 188:10,13 188:15 2009 [45] 1:18 50:25 67:21 68:5 93:12,14 94:9 95:4 99:13,18,22 100:4 101:11 102:2 103:4,6,17 104:10,25 105:14 106:20 120:12 121:6,8 132:17 132:18 150:11 152:22 171:8 173:21 182:25 183:13,13,16 185:11 186:3,12 187:25 188:10 188:12,13,16 190:16 199:2 200:5 2010 [10] 48:25 52:16 53:21 158:10 185:9 186:16 188:20,23 189:2 196:7 2011 [37] 2:3 26:12 48:7 49:8 50:18,23 57:24 69:1 69:3,21 71:3 78:7 79:22 86:15 87:12 89:11 90:12 90:14 91:9,15,25 92:4 92:21,21 93:8,16,18,22 93:24 190:13,15,20 191:4 192:14 193:20,25 194:21 2012 [14] 99:10,24 100:1 102:4 106:9,20 107:4 121:4 135:22,25 136:19 157:5 160:4 171:6 2013 [3] 1:10 204:5,11 202 [1] 113:8 209 [1] 138:1 20th [2] 135:24 136:19 21 [2] 135:4 157:16 211 [1] 138:3 214 [1] 138:4	211 [1] 52:3 227 [2] 137:19 138:1 23 [1] 146:25 25 [3] 129:19 154:9 167:10 28 [2] 140:11,22 29 [3] 140:6,22 141:24 2:00 [1] 182:14 -3- 3 [5] 3:7 29:1 33:14 175:7 195:25 3.15 [1] 63:12 3.78 [2] 99:19 102:1 3.8 [4] 182:8 185:4 195:21 196:9 30 [20] 15:21,25 16:20 18:7 21:17 45:13 46:2 62:6,17 70:25 71:9,17 87:13 88:22 90:8 129:18 160:12 182:22 184:16 192:18 30/40 [1] 181:15 32 [3] 45:13,14 46:2 320 [1] 100:8 35 [4] 4:13 68:15 84:4,10 36 [1] 97:13 37 [1] 186:4 39 [1] 16:20 -4- 4 [6] 1:11,13 71:4 182:12 185:5 193:24 4.03 [1] 85:11 4.5 [4] 168:5,15 192:21 193:24 4.7 [5] 53:22 58:21 69:24 71:2 85:10 4.91 [1] 85:21 40 [6] 24:9 162:20 163:10 165:10 180:22 191:15 400 [2] 5:5 73:18 41 [1] 163:10 43 [3] 5:7 21:18 131:13 45 [13] 14:6 16:21 18:19 19:1,13 27:12 28:25 67:7 68:16 162:20 163:8 175:1 191:14 46 [1] 184:10 49 [2] 18:25 19:2 -5- 5 [8] 134:9 163:15,17,17 164:4 171:9,12 192:21 5.1 [1] 65:8 5.2 [1] 65:1 5.4 [1] 89:17 5.5 [1] 171:6 5.7 [1] 168:6 5.75 [2] 24:5,8 50 [21] 24:6 26:1,16 65:19	106:18 152:22 153:7 155:2,14,21 167:7,8,10 184:11 186:15,19,21,24 196:2 197:14 199:7 500 [2] 16:13 20:14 53 [1] 121:8 55 [2] 175:1 196:18 -6- 6 [11] 45:1,2,16 46:7,12 56:5,6 61:11 63:10 64:24 171:12 6.3 [1] 171:4 6.7 [1] 70:14 6.8 [2] 24:5,8 6.80 [1] 36:23 6.84 [2] 27:17 28:4 6.99 [1] 100:3 60 [6] 15:21 16:1 18:7 88:22 90:8 165:11 60s [1] 181:7 64 [1] 143:16 65 [3] 143:16,20 145:5 68 [1] 187:13 69 [1] 190:12 -7- 7 [6] 45:1,4 65:8 69:23 178:7 179:4 7,000 [2] 170:25 171:10 7.4 [1] 63:23 7.5 [1] 23:21 70 [7] 34:8 35:12 36:11 36:14,20 37:4 162:25 70s [1] 181:7 75 [1] 186:23 75/80 [1] 169:23 -8- 8 [9] 1:9,19 78:4,4 81:8 99:20 168:19 188:19,21 8.05 [2] 14:2 17:1 8.5 [2] 178:8 179:4 8.6 [1] 65:23 8.72 [2] 99:21 100:4 8.73 [2] 26:1,16 8.8 [3] 70:12,25 85:20 8.91 [2] 27:12,22 8.92 [1] 188:18 80 [10] 8:4,10 22:3 24:12 128:10,11 130:2 131:18 152:5 195:18 82 [1] 188:12 85 [2] 191:12,16 86 [5] 93:16,20 94:1,8,9 -9- 9 [4] 26:17 81:8 179:5 180:19 9.1 [3] 62:5,16 65:21
---	---	---	---	--

9.23 [1] 26:3 9.3 [4] 14:3 17:1 100:1,7 9.4 [2] 62:4,15 9.63 [1] 27:18 9.65 [1] 166:25 9.75 [2] 56:11 63:14 9.9 [3] 14:14 33:14 34:4 90 [2] 16:14 199:4 99 [1] 1:13 9:03 [1] 1:1 9:15 [1] 12:1 9:30 [1] 23:18 9:45 [1] 37:2 -A- A- [1] 10:17 a.m [11] 1:1 12:1 23:18 37:2 47:25 58:4 71:14 80:12 89:6,7 97:7 AAA [4] 190:19,21 191:1 194:9 Abbott [1] 121:23 ability [7] 145:16 155:8 159:19 160:10,18,20 204:9 able [10] 43:2 47:15,18 54:19 58:18 109:12 157:23 159:5,16 165:4 abnormal [2] 181:21 182:9 above [4] 127:17 128:1 128:14 185:4 absence [1] 47:22 absolute [2] 131:6,14 absolutely [7] 36:5 88:24 148:1 180:14 182:2 200:6 201:20 accept [14] 30:11 54:2,4 60:11 61:3 67:21 68:7 83:12 85:13 91:17 105:17 118:12 137:18 149:15 accepted [5] 12:22 102:24 189:9,10 196:4 accepting [2] 106:18 189:11 access [1] 148:3 accessing [1] 182:3 according [3] 63:21 85:21 86:18 account [6] 123:15 131:12 140:20 142:16 147:23 148:2 accounts [4] 123:19 159:12 162:9 201:22 accuracy [1] 85:23 achieve [2] 58:18,19 achieved [2] 54:24 91:8 acquired [3] 133:22,25 134:4 action [1] 109:21 actions [6] 184:2 194:7 194:15,19 195:20 196:12 active [1] 148:6	activities [3] 22:1,4 128:19 actual [11] 15:25 16:2 18:7 25:6 63:17 128:17 159:9 174:23 175:22 176:1 187:22 Actuaries [3] 69:7 81:11 82:11 add [5] 31:10 34:1 40:23 70:13 179:2 added [6] 25:5 81:17,17 86:8 104:4 186:24 adding [3] 26:1,4 188:8 addition [7] 22:2,4 109:10 145:12 154:10 157:22 176:6 additional [4] 13:7,8 24:24 89:17 address [2] 5:22 23:23 addressed [1] 51:22 adds [2] 24:9 33:4 adequate [1] 155:15 adjourn [1] 202:25 adjourned [1] 203:4 adjust [16] 42:6 59:24 60:8 61:21,22 132:10 162:7 176:2,19,20,21,23 177:2,3 197:2 199:3 adjusted [3] 175:21 176:23 199:4 adjusting [1] 26:4 adjustment [36] 21:10 21:19 22:5 24:6,20 26:2 26:5,17 102:16 117:25 118:9 151:24 152:7 154:1 154:16 161:17 177:1 182:7 185:9 186:18,20 186:21,23,25 187:4,24 188:5,9 189:3 196:1,2,6 196:25 199:9 202:5,7 adjustments [11] 24:19 131:11,25 132:4,7 196:24 197:5,10,10 199:17 200:13 adjusts [2] 188:9 199:6 admission [1] 24:25 admitted [1] 198:10 adopt [2] 3:8 158:14 advantage [2] 7:4,17 advantages [1] 7:3 adverse [1] 1:21 affect [1] 147:17 affected [1] 195:10 aftermath [1] 190:8 afternoon [2] 139:18,20 again [24] 28:21 30:20 46:24 54:18 57:18 61:18 63:10 65:18 67:6 71:22 73:18 77:22 84:8 85:22 86:23 99:2 103:7,8 118:16 121:19 129:24 143:2 144:10 151:2 agencies [4] 116:18,20 116:25 121:25 ago [13] 14:18 16:23	154:22 161:10,16 162:23 169:12 172:24 177:25 178:8 181:15 186:9 199:21 agree [8] 15:19 27:19,24 86:22 95:25 111:23 112:22 113:2 agreed [3] 80:9 112:18 161:14 agreement [5] 1:23 131:6,14,16 182:11 ahead [1] 32:12 aid [3] 49:15,19 84:3 Alberta [17] 4:23 48:7 49:20 50:19 67:13,17 68:6 93:7,9 97:2,5 111:3 121:6 162:5 163:20 173:1 173:2 alike [1] 63:21 allow [6] 107:14 108:18 150:2 154:18 155:10 200:7 allowable [1] 161:22 allowance [4] 153:5 154:25 155:2,22 allowed [55] 19:12 26:9 26:14,18 39:9,20 40:6,8 40:11,14,17,23 108:24 110:24 111:13,13,21,23 111:25 112:3,24,25 113:11 114:5,15 123:6 145:5 146:23 147:5,8,12 147:13,18 149:16,19 150:6,14,21 151:15 152:11 153:2 159:2,9,17 159:20,25 160:10,18 187:22 188:3,11,18,20 188:25 202:8 almost [4] 5:5 173:4 186:11 198:9 alone [2] 12:4 122:1 along [2] 5:25 113:25 AltaLink [1] 172:23 always [5] 41:13 73:17 73:20 102:9 196:24 amalgam [1] 183:3 amalgamation [1] 132:21 America [4] 5:6,7 160:3 170:16 American [3] 10:4 120:14 124:18 amount [5] 37:19 159:4 159:11 181:9 185:21 analysis [18] 6:17 12:18 14:19 22:9 23:24 25:11 40:19 45:3,6 56:23,24 60:20 90:24 98:10 99:3 99:14 114:16 148:24 analyst [9] 47:2 51:5 55:23 56:9,20 57:10 93:5 93:11 99:1 analyst's [8] 59:8,14,17 59:18 60:2,3 61:16 66:18 analysts [9] 94:11 95:2 95:9,12 96:19,21,22 125:7 170:22	analyze [2] 6:4,7 annual [5] 46:10 47:6 84:18 167:2,14 answer [18] 32:10 46:13 48:7,19 69:14 97:18 108:3,8 116:4 121:18 136:5,10 141:23 143:24 143:24 145:5 154:8 186:8 answered [2] 99:5 146:6 answering [1] 175:16 answers [4] 158:17 170:14 186:7 189:4 Ante [11] 13:23 14:10 30:19 32:2 33:18 35:6 38:8 40:21 44:2 97:10 97:25 anyway [1] 42:3 apparatus [1] 204:9 appear [1] 88:12 appeared [4] 4:21 5:5 102:23 122:24 appendices [1] 157:25 appendix [7] 167:4 168:19 175:6,8 179:1 181:6 198:13 applaud [1] 155:22 application [2] 13:22 204:5 applied [3] 13:17 44:1 154:19 applies [1] 27:10 apply [12] 11:1 12:5,8 17:7,24 31:5 41:17,25 64:10 86:24 88:3 132:9 applying [3] 6:8 23:21 42:7 appointed [2] 199:24 200:1 appreciating [1] 21:8 approach [7] 27:6 29:20 37:13,13 43:10 62:5 65:14 approaches [2] 33:17 33:18 appropriate [8] 76:10 76:11 86:4 130:7 148:23 151:8 197:5 200:13 approved [1] 18:24 approximate [2] 9:11 117:5 April [3] 99:12 135:24 136:19 area [2] 140:3 153:4 areas [1] 4:12 arguable [1] 115:21 argue [1] 161:24 argued [1] 94:12 argues [1] 19:19 argument [2] 96:13,15 arises [1] 120:7 arithmetic [9] 51:12 53:21,24 58:2 166:24 167:9,22 168:5 179:1 arrive [5] 18:4 27:11,21	39:19 70:14 arrives [2] 24:4 25:20 aspect [1] 151:4 aspects [2] 114:20 145:25 assertion [1] 54:25 assess [13] 12:12 18:18 22:23 47:11,12 115:7 116:5 117:21 118:18 119:2 165:17 177:21 185:16 assessed [2] 18:21 19:3 assessing [4] 140:23 142:4,12 185:15 assessment [6] 112:1 119:1 140:3,13 171:17 186:9 assessment's [1] 116:18 assessments [1] 60:22 asset [8] 11:8 12:24 13:10 14:18 27:14 124:15 128:20 194:6 assets [18] 7:13 8:5,11 22:3 34:20 45:7 64:12 76:5 128:11,13,23,24 130:2,16,23 131:18 152:5 178:17 assigned [1] 41:7 assist [1] 123:24 associated [2] 11:12 118:24 Associates [1] 4:3 Association [2] 50:17 51:10 assume [5] 33:23 57:3 76:6,11 106:20 assumed [2] 66:10 88:21 assumes [2] 13:10 18:12 assuming [2] 83:9 202:20 assumption [4] 13:1 55:23 56:24 96:16 assumptions [1] 59:3 ATC [1] 187:16 attachment [4] 52:3,23 53:12 136:2 attention [4] 28:25 51:8 78:8 121:2 attitude [1] 200:7 attract [2] 145:16 155:8 attracting [1] 145:23 attractive [2] 195:4,5 AUC [5] 48:20 49:5,25 121:9 186:14 August [3] 106:9,20 191:4 authorities [1] 24:16 automatic [4] 185:9 186:18 188:5 189:3 available [10] 7:8,18 8:18,20 40:10 46:13 48:2 75:10 131:9 164:19 average [75] 1:15 10:10 10:14,15 11:22,24 14:11
---	---	--	--	---

14:14 16:11 18:23 24:10 26:18 33:19,22 35:11 39:9 48:8,21 51:11 53:24 53:25 57:17,20,25 58:2 64:16,25 65:1,3,7 68:25 69:5,19,21,23 70:10,11 73:7,7 78:19 80:6,22 84:17 85:7,8 87:15,15 92:22 115:19 116:1 117:11 119:22 120:13,15 120:19,22 126:14,16,18 126:19 138:10,13,14,16 138:18 154:21 167:9 168:4 169:23 171:5 172:19 177:3,4 187:4,6	188:12,19,21 189:1 195:18 197:15 199:5,7,8 basket [9] 6:20 7:4 8:3 16:5 68:18 69:4 70:9 82:15 89:11 BBB [5] 45:8 128:1,2,14 131:20 BBB+ [9] 10:15,17,19 120:22,25 123:11 131:21 138:15,17 BBB- [1] 128:3 BC [4] 4:22 53:6,7 83:6 BCUC [4] 79:15 106:8 199:1,6 become [2] 76:10 177:7 becomes [1] 187:8 becoming [1] 152:10 beginning [4] 16:20 101:20 164:20 183:17 begins [1] 26:11 behalf [3] 104:24 105:13 107:3 behind [1] 136:7 believable [1] 180:6 believes [1] 102:17 below [11] 1:16 48:23 110:24 111:22 127:15 128:2,3 145:7 182:8 190:21 196:9 benchmark [1] 177:16 benchmarks [1] 178:5 benefit [7] 6:25 178:15 180:5 200:20,22 201:9 201:17 beside [1] 111:20 best [14] 22:23 23:1 47:4 73:15 90:7 92:8 102:9 102:10 116:12 129:2 130:18 131:2,9 204:8 bet [1] 177:1 beta [33] 13:13 15:9,10 16:6,7,15,17,23 17:8,9 17:11 18:5,13 24:2 88:21 88:25 171:17,19,21 172:1 172:19 174:1,11,15 175:3 175:23 176:6,7,8,9,25 177:3 198:25 betas [13] 11:9 173:14 174:5,21,23,24 175:21 176:1,19,21 177:20 198:1 198:13 better [5] 16:11 80:22 130:16 151:6,7 between [31] 9:2,23 21:7 22:20 24:11 36:2 40:14 41:13 88:13 100:5,21,25 102:21,25 117:22 118:21 119:9 120:25 121:9 123:2 123:11 132:11 148:22 149:3 154:9,25 155:24 163:19 175:25 189:6 194:6 bias [2] 94:11 95:1 bid [1] 180:18 big [1] 187:20	billion [4] 191:13,14,15 191:17 BIS [1] 200:4 bit [13] 8:23 18:17 23:22 45:24 110:13 122:4 123:22 155:10 168:7 171:12 173:7 191:5 202:17 BMO [11] 6:20 7:4 8:3 30:14 68:18 82:13 85:2 85:14 89:11,16 164:19 board [51] 4:22,22 8:25 12:19 14:17,20 15:4 19:8 47:12,18 54:22 65:15 67:13,17 68:6,7 71:8 73:4 88:8 90:2,25 91:7 97:2,5 109:11 112:7 131:7,13 132:8,17 148:21 149:1 160:6 169:3 184:23 185:13 186:13,17 187:18 187:22 188:19,22,25 189:24 196:5 199:24 201:20,21 202:5,8 204:6 boards [2] 38:20 150:7 bond [128] 10:10,14,16 10:18,22 13:7 22:8,9,11 22:14 45:7 69:5,5,6,19 69:23 70:11 73:7,20,23 74:3,12,14,19,20 76:15 76:16,18,23 77:7,13,23 77:24 78:9,11,18 79:6 79:14 81:18,21 82:9,10 84:19,24 85:7,8,15 86:22 86:25 87:15 99:11,19 100:1 101:6 102:2 115:9 115:10,11 116:17,20,24 117:3,4,5,12,19 119:20 120:25 122:22,23 123:6 123:8,8 127:11,23 128:14 131:19,20 138:14,16 141:12 142:15 143:13,21 143:25 144:4,14,17,22 145:6,10,16,21 146:7,10 146:19,20 147:2,7,13,15 147:21 148:16 168:3,10 181:24 182:4,5,7 184:6 184:8 185:3,12,14,16 186:10,20,24 187:17 188:3 192:20 193:8 194:18 195:18,22 196:9 197:12 199:10 bonds [27] 13:9 24:11,12 69:15 73:23 75:8 77:4 80:5,21 81:2 91:22 97:24 127:22,22 148:6 184:14 185:19,24,25 186:5 187:6 191:11 194:12,16,21 195:12,15 book [15] 41:23 42:1,9 42:10 51:13,18 54:11 59:9 95:16 136:4,9 154:15 155:1,7,24 Booth [61] 18:2,12 19:24 23:20 24:1,9 25:3,10,14 36:22 59:12 79:5,20 81:16 84:15 88:20 104:3 156:23 157:1,3,6,9,12 157:22 158:1,4,7,13,16 158:20,22 162:18,21 164:6 165:17,19 170:7 175:9,11,15,20 177:12	177:14 181:17,19 182:17 182:18,21,24 185:8,10 187:14,23 190:11,13,14 190:17 196:18,22 200:25 201:2 Booth's [8] 6:1 17:21 19:15 23:24 24:23 25:22 102:16 189:11 borrowing [3] 188:4 192:1,4 bottom [4] 104:23 124:9 140:5 168:17 bracket [1] 184:10 Brattle [1] 198:6 break [8] 68:12 89:2,5 127:13 138:24 139:10 156:15,19 brief [2] 138:24 157:9 bring [8] 49:5 51:7 93:5 93:9 97:13 99:12 117:19 192:17 bringing [1] 95:3 brings [1] 86:23 British [3] 82:21 104:11 105:12 broadened [1] 198:22 broader [1] 171:15 Brothers [1] 174:7 budgeting [2] 167:19 170:23 bulk [2] 172:24 186:6 Burns [1] 164:19 business [42] 3:22 8:24 9:2,7,9,13 10:7 107:9 115:18 116:2,5,7,13,18 116:21 117:17,22 118:22 118:23,25 119:3,9 121:13 122:14,21 123:16 124:23 129:4,11 137:8 141:6 142:14,20 149:5 151:19 157:20 158:21 162:8 170:10 187:3 189:15 195:23 businesses [6] 76:4 122:5 129:6 130:21,24 131:1 buy [2] 191:11,12 buying [2] 184:13 195:12 buzzing [1] 190:23	37:24 calculating [1] 101:7 calculation [4] 16:22 17:17 63:2 85:13 calculations [3] 85:22 85:23 86:19 calls [5] 24:13 30:9 33:13 59:12 184:21 Canada [109] 4:19 15:23 21:7,21 22:20 35:13 69:15,16 76:14,16 78:8 78:11,12 79:6,14,21,24 80:5,21,21 81:1,9,18,20 82:8 84:19 110:7 118:21 122:15 145:20 148:5,22 150:3,25 152:21 153:2 155:20 159:11 161:7 162:14 163:4,5,12,24 166:9,21 167:22 168:6 168:14,25 169:1,4,5,8 169:19 170:2 176:8 177:25 178:15 179:13,25 180:4,8,25 181:2,24 182:3,5,8 183:17 184:5 184:8,10,13,21,24,24 185:3 186:4,20,24 187:17 188:3 192:18,20,25 193:9 194:9,12,12,16 195:8,10 195:12,15,22 196:8 197:15 198:10,15,17,20 199:21,23 200:9,21 201:23 202:2,9 Canada's [1] 192:14 Canadian [108] 4:20 6:15,16,19,20,24 8:3,19 9:2,23,24 10:3,6,11 16:1 16:9 17:7 18:8,12,15 19:18,21 20:2,3,6,11,19 20:24 22:13,18 23:3,9 23:16 24:16 28:8 29:25 30:14 34:10,13,17,18,19 35:23 36:2,8 43:9,16 50:16 51:9 52:12 64:11 69:7 75:11 78:6,18 81:10 82:10 86:24 88:3 90:6 90:18 92:10 109:2 114:22 114:25 115:4,14,17 116:1 116:21 117:1 119:6,22 120:13 121:12,14,15 122:2,25 123:2 124:4,10 124:13,14 129:25 149:3 149:8,18 150:1,7,10,12 168:22 169:6 177:6,8 181:22,24 182:19 185:1 194:25 195:18 198:24 199:1,22 200:14 201:4 201:21 cannot [2] 12:10 105:8 capital [76] 11:8 12:24 13:10 14:18 27:14 41:17 41:18,19,21 42:1,8 49:22 50:18 77:1,2,11 103:4 104:10 108:5 115:6 120:7 121:5,7 141:4 142:5 143:2 145:16,23 148:3 154:11,20,21 155:5,9,19 156:25 160:17,17,19,21 161:5,5 165:6,9 166:12 166:18,20 167:19 168:20 168:22 169:5 170:23,24 172:2,9 176:14 177:8,19
---	--	--	---	---

179:5,8,22 180:17 181:13 181:22,24 182:3,10 193:4 193:7,13 194:6 197:1,4 199:18 201:9,18 capitalization [3] 142:23,25 143:5 CAPM [55] 13:17 14:2,4 14:23 15:2,5,10 16:8,15 16:22 17:6,22,24 18:4 18:14 23:21 24:4,9,24 25:4,24 26:6,7 27:1,16 28:4,7 36:22 39:8,10,13 86:23 87:4 88:2,6,9,10 88:16,20,20,24 90:18 100:15 102:16 104:5 166:2,3,3,4 177:13,15 177:17 180:10,11 196:25 CAPP [2] 50:16 52:3 captured [1] 176:6 care [1] 141:12 case [16] 29:25 44:9 45:11 60:18 67:11 69:1 79:15 80:25 91:11 95:4 100:13 111:3 123:18 131:17,24 132:16 cases [4] 73:18 108:5,7 162:2 cash [22] 11:7 12:23 13:2 25:11 27:15 29:7 31:22 32:1,2,3,23,25 35:5 44:2 44:24 45:2,5 141:16,17 141:17 185:20 186:1 cashflow [3] 54:12 62:2 97:20 cashflows [2] 76:17 96:18 casual [1] 103:13 causae [1] 58:21 caused [3] 91:24 189:15 194:18 central [5] 183:19 184:23 194:8,10 196:12 certain [2] 129:15 191:8 certainly [3] 5:3 32:1 197:22 CERTIFICATE [1] 204:1 cetera [1] 21:11 chair [8] 1:5 2:4,8 156:14 157:14,15,16 202:16 Chairman [21] 1:2 2:5 2:12,13,19,24 3:5 89:2,4 139:6,13,15 156:4,7,8 156:17,22 181:20 202:13 202:24 203:3 chance [1] 126:13 change [15] 1:22 21:22 76:12,24 77:8 133:20 152:1 160:3 161:2 163:1 171:24,25 174:25 189:21 194:17 changed [7] 160:2 180:22 190:13 192:11,16 193:21 194:22 changes [7] 3:13 95:12 95:14 152:17 158:8 160:7 190:15	characterization [4] 31:25 32:6 64:2 105:17 chart [1] 51:20 check [8] 54:25 62:13 65:5,9 68:12 82:21 86:2 137:18 checked [3] 83:5,7,8 checking [1] 83:13 chief [1] 202:21 choice [1] 8:2 choose [1] 60:11 chosen [2] 131:7,8 Chris [1] 14:6 circle [2] 67:8 68:5 circled [1] 68:3 circles [1] 150:10 circular [2] 66:5,16 circumstances [1] 110:4 CIT [1] 157:14 City [1] 183:1 clarification [1] 44:19 clause [2] 1:22 23:1 clauses [1] 23:1 clear [2] 97:10 101:13 clearly [1] 195:13 clever [1] 173:9 close [2] 71:18 188:24 closely [2] 37:12 171:20 closer [3] 16:16 28:11 167:25 CM [3] 6:20 7:4 8:3 co-efficients [1] 198:25 coefficient [3] 171:18 171:19,21 coefficients [1] 174:16 collapse [4] 173:17 174:6 174:10,19 collapsed [3] 173:15,16 193:22 Columbia [3] 104:11 105:12 113:18 Columbia's [1] 82:21 column [9] 69:5 78:9 79:14 81:9,19,22 82:8 82:10,13 combination [3] 91:14 92:24 134:20 combine [2] 116:23 117:2 comfortable [4] 115:8 144:4 146:9,14 coming [5] 172:25 193:13 194:11 195:11 201:10 comment [6] 23:24 25:20 27:5,7 108:3 121:20 comments [5] 6:1 85:12 150:12 166:1 190:12 commission [19] 4:23 4:24 5:11 48:8 50:20 53:7 90:17 93:8,10 94:10 94:25 104:12 105:13	111:6 121:6,9 162:6 180:23 185:11 Commission's [1] 94:22 Commissioners [5] 54:22 81:24 156:22 157:23 204:6 commissions [2] 38:24 39:7 committed [1] 191:12 commodity [2] 160:13 166:18 common [19] 18:19,21 18:22 53:16,17 102:23 162:7,19 163:2,8,13,15 163:19,22 164:1 165:11 201:13 202:1,3 commonly [1] 24:14 community [2] 148:9 171:16 companies [102] 6:9,21 7:8,12,16,17,19 8:4,7,9 8:10,12,13,14 10:22 11:15,17,23 13:18,20 22:10 34:18,19 46:17,24 47:8,22 54:18,23 56:5 57:2,17 58:1,18 60:22 61:9 63:20 64:19,22,25 70:1,3,6 75:18,20,23 76:1,3,7,8,10 88:14 92:6 100:19 107:14 113:19 114:7,10 117:10 119:3,5 119:6 120:22 123:6,7 124:19 126:4,25 127:17 128:7 129:15 130:9 132:11,18,19,23 135:13 137:2,6,9,11,19,22 138:5 138:13,18,21 142:23,25 143:10 144:19 146:19 148:7,24 154:4 163:9,10 163:12 170:23 198:2,4 198:21 company [43] 11:14,20 11:21 56:6 57:4,5 61:11 61:13 63:11,13 64:5,8 91:4 98:19,20,22 107:23 111:21 125:23 126:14,16 126:19 133:16 134:4,10 134:18,21 135:8 138:19 140:15,24 145:1,2,15 147:6 148:9 154:12 159:22 164:13 165:3 180:1 183:12 198:5 company's [7] 1:20 3:7 112:3 143:23 155:8 159:19 164:24 comparability [2] 12:13 129:21 comparable [31] 5:23 6:3,9 9:12 11:2,23 13:18 13:19,25 22:12 23:16 34:16 36:18 37:9 41:2,5 41:7,11,24 42:5,14 64:22 97:21 98:15,18 115:13 117:10 119:4 121:16 138:6,11 comparables [1] 131:8 compare [6] 10:12 21:11 22:20 40:11 46:8 51:15 compared [11] 13:9	15:15,24 20:11,14 71:1 84:19 97:23 99:24 119:4 119:5 compares [1] 32:15 comparing [5] 18:22 22:8 42:11 85:9,18 comparison [1] 111:12 compensate [1] 13:8 compensated [1] 154:6 competition [2] 200:8,9 competitive [3] 160:11 168:25 199:19 completely [1] 193:21 component [3] 15:9,10 96:23 components [3] 23:23 161:25 177:16 composite [17] 15:24 16:3,4 18:10 20:15 25:16 86:7,8,16 87:2,13,17,25 88:19,23 89:13 90:16 compound [14] 48:8,21 51:12 53:14,22,23 54:24 58:20 166:24 167:1,14 167:17,23 178:25 comprehensive [5] 45:3 124:19,21 132:24 133:4 Compustat [1] 176:13 computer [1] 166:7 concede [1] 115:25 conceive [1] 200:2 concept [1] 112:6 concern [1] 94:10 concerned [3] 95:1 145:14 160:6 conclude [6] 13:25 23:13 26:25 28:14 202:12,23 concluded [1] 19:3 concludes [1] 156:3 conclusion [5] 13:19 26:21 36:14 88:17 124:3 conclusions [3] 14:9 27:8 35:19 condition [1] 128:6 conditions [7] 128:10 181:14 182:10,19 183:25 184:1,3 confidence [1] 11:24 confirm [4] 83:17 86:11 108:2 158:13 confirming [2] 83:3,5 confused [1] 67:23 confusion [1] 97:11 conservative [4] 126:2 126:8,18,24 consider [12] 6:14 36:16 57:12 88:13 113:5 122:5 124:5 128:17 130:8 138:6 140:23 141:6 considerable [2] 23:5 33:4 considerably [4] 20:7 27:1 32:22 151:22 consideration [4]	129:20 130:6,12 140:14 considered [4] 15:18 114:8,12 132:4 considering [1] 9:11 consistent [10] 59:2,24 60:21 74:7,10 84:6 120:20 155:21 180:20 195:23 consistently [1] 193:8 Consolidated [3] 52:8 63:11,22 constant [13] 55:11,17 55:22 60:12,14 61:4 62:3 62:15,15,19 67:9,21 88:12 constantly [1] 179:17 constitute [1] 112:11 consulting [1] 4:4 consuming [1] 21:15 contains [1] 137:18 contested [1] 102:13 context [3] 36:16 37:7 51:8 continued [1] 186:23 contracts [2] 173:1,4 contrary [1] 88:24 contrasting [1] 84:17 contrasts [1] 99:24 control [1] 200:18 controlling [1] 166:7 controversy [2] 104:3 191:22 convenience [1] 184:10 convert [3] 178:23,25 180:13 cope [1] 176:5 copy [5] 50:11 81:25 94:3 94:6 168:18 corporate [7] 24:11 133:19 185:14,16 186:5 186:10 196:3 correct [35] 4:6 5:1,9,18 17:19 29:9,15,20 30:22 31:11 33:20 34:10 35:14 35:16 37:15 55:25 56:2 78:20 83:10 90:23 91:1 94:1 95:5 106:4,16 108:13 120:4 132:24 149:11 153:8 155:18 157:25 158:2 187:15 204:3 corrections [1] 158:4 correctly [1] 3:23 correlated [5] 59:7,14 66:17 95:12,13 correspond [1] 26:3 cost [99] 5:23 6:5,7,8,11 8:14,17 9:15,19 10:18 11:1,6,13,16,18 12:14 12:20,22 13:20 14:1,24 15:6 17:23 18:3 19:8,17 19:19 21:10,19 22:5 26:17 27:2,10,12 28:6 29:2 34:8,14 35:11 36:18 36:21 37:8 38:25 40:25
--	---	---	---	---

41:16,25 43:7 44:11 49:22 50:18 57:16,21 63:7 64:3,9,14,18 66:14 66:20 72:9 91:3 92:23 100:24 103:3,18,23,25 104:9 106:19 107:15 108:5,19 109:1 117:25 118:8 121:4,7 123:5,9 123:12 124:12 138:9 146:21 147:18 150:15 151:24 152:7,20,25 154:21 155:11 156:24 164:10,17 170:24 193:6 195:3 201:9,18 costs [7] 9:17,18 123:20 154:5,7 161:18 188:4 counsel [1] 121:10 countries [1] 117:22 country [2] 191:2 194:9 couple [2] 138:2 161:10 course [5] 5:21 43:19 54:21 119:20 138:5 courses [1] 4:13 cover [3] 122:10 136:15 155:15 coverage [1] 141:17 covered [1] 139:23 covering [4] 141:13,14 141:15,16 crashes [1] 172:5 create [1] 107:6 credit [23] 1:21 24:10 120:14 121:16,19,21,24 122:2 124:25 137:7 142:15 147:10 186:13,14 186:15,21,25 187:4,6,24 188:11 195:2,6 crisis [18] 151:24 162:25 173:7,20 174:9,13,13,19 174:21 179:13,14 183:11 184:4 187:2 190:6,9,22 190:24 criteria [2] 126:1 190:4 criterion [1] 130:1 criticize [1] 179:20 criticized [2] 175:14 179:18 criticizes [1] 177:12 cross [8] 48:16 49:15,19 72:14 83:9 105:16 129:13 146:15 cross-examination [6] 51:23 144:2,11 173:9 190:16 202:17 CRTC [1] 4:24 current [6] 40:24 111:25 113:11 175:2 181:21 193:17 curve [2] 191:24 192:3 cut-off [1] 127:24 cycle [3] 187:3 189:15 195:24 cyclically [1] 195:21 cylinders [3] 163:6,6 182:1	-D- D [3] 46:21 54:6,10 data [63] 1:9 7:8,17 8:18 8:20 15:20 18:12 25:16 29:24,25 33:17 34:7,10 34:13,13 35:5,14 40:10 46:15,17,23 47:7,11 48:3 54:21 55:3,5,7 68:17 69:15 70:25 71:13 74:17 75:10,19 82:21,22 83:3 83:7 85:3 86:9,11 92:20 99:9 113:16,25 114:1 128:25 131:9 132:1,9 135:11 150:23 159:15 166:5 176:13,15,16,19 187:10,15,20,21 dataset [1] 70:8 date [2] 104:14 165:15 dated [4] 135:22 136:19 157:5 204:10 days [1] 161:10 DBRS [1] 2:2 DCF [74] 12:23,25 13:16 13:22 14:9 25:10,14,23 25:25 26:13,25 27:17 28:3,10 29:6 30:19 32:5 33:18 36:24 37:11,13 38:8,10,20,25 39:18,23 39:25 40:13,20 45:12 46:1,18,25 54:7 55:9 56:23,23 57:5,15 58:15 58:23,25 60:5,20 63:10 63:17 64:4,7,10 65:17 94:16 96:4,16,23 97:12 97:25 98:5,6 99:3,6,11 99:18 100:1,6,10,14,20 100:21,25 101:6 103:9 138:17 199:7 dead [1] 141:11 deal [3] 4:19 57:6 160:6 debt [11] 9:25 41:21 141:17,20 154:15 155:5 163:16 164:12,14,14 165:11 December [4] 53:2,6 79:16 83:18 decided [3] 189:19,19 190:3 decision [9] 27:24 49:23 93:8,14 121:7,8 189:8 189:11,24 decisions [5] 60:3 95:9 170:23 186:2,12 decline [5] 98:12 101:3 102:1,15 171:3 declined [9] 101:10,19 101:22 102:3 103:4,18 103:23 104:1 153:1 declines [1] 84:23 declining [2] 80:8 91:20 decrease [2] 77:23 98:24 decreased [1] 62:3 decreases [1] 32:19 decreasing [1] 90:10 deduct [2] 69:22 70:10	deducting [1] 69:19 default [1] 186:6 deferral [4] 123:19 159:12 162:9 201:22 deficit [1] 191:21 deficits [1] 200:18 define [4] 66:5 125:22 141:6 165:20 defined [2] 178:15 180:5 definite [1] 127:24 definitely [1] 142:19 definition [4] 111:2,7 112:11 187:7 definitions [1] 12:13 definitively [1] 119:16 degree [5] 21:3 100:17 121:22 162:9 169:7 deliberations [1] 47:13 deliver [1] 9:14 delivery [1] 161:1 demand [2] 107:19 161:3 demonstrable [1] 120:6 demonstrate [1] 59:5 demonstrated [1] 173:18 demonstrates [2] 32:20 62:14 denying [1] 180:14 depend [1] 145:6 depending [1] 44:3 depressed [1] 181:23 depressing [1] 182:5 derived [2] 39:24 40:3 described [4] 15:8 73:13 94:19 95:10 deserving [1] 181:10 designed [1] 42:6 destroys [1] 161:3 detail [4] 16:19 51:17 118:3 144:17 detailed [1] 21:13 determinant [1] 114:6 determination [1] 90:3 determine [5] 47:18 54:23 91:10 108:7 112:7 determined [7] 66:9 111:15 155:11 184:19,20 194:4,14 determining [2] 123:15 151:7 develop [1] 40:24 deviation [1] 23:9 deviations [2] 20:16 23:10 devoted [8] 7:14 8:5,11 22:3 34:20 64:12 128:12 131:18 difference [35] 2:16 9:21 9:22 20:21 23:12 35:17 35:19,20 36:7,15 62:11 71:4,7 74:19 100:8 106:19 119:8 120:24	123:2,11 132:5 148:22 149:3 151:14 154:17,25 155:24 166:25 168:1,23 175:25 185:6 187:5,10 189:2 differences [12] 9:1 35:22 36:1,6 43:19 117:21 131:12 132:10 162:4,8,15 169:16 different [21] 12:6,8,13 32:22 72:2 73:11 75:20 76:7 118:22,23 121:13 123:6,7 130:12 134:5 137:19 139:23 146:19 161:25 162:4 184:5 difficult [8] 109:24 118:18,25 121:20 145:21 145:22 162:14 197:21 difficulties [1] 20:24 difficulty [4] 82:22 83:2 130:25 182:12 dimension [1] 158:24 direct [3] 28:25 123:4 150:18 directly [1] 196:13 disadvantage [2] 7:7 7:10 disadvantages [1] 7:3 disagree [1] 64:1 disappear [1] 174:16 disappeared [1] 174:21 disappears [5] 173:21 173:23 174:13,15,18 disconnect [1] 41:13 discounted [21] 11:7 12:23 13:2 25:11 27:14 29:7 31:22 32:1,2,3,23 32:25 35:5 44:1,24 45:2 45:5 54:12 62:2 96:17 97:20 Discoveries [1] 204:13 discuss [8] 5:21 16:19 21:5 51:17 105:18 154:13 156:15 184:18 discussed [4] 21:16 87:10 100:14 162:23 discussion [6] 8:23 20:9 22:16 93:4 97:11 167:4 disregarding [1] 200:22 distinctions [1] 118:21 distinctly [1] 194:25 distinguish [1] 10:21 distinguishes [2] 111:9 111:11 distributed [1] 160:14 distribution [4] 118:14 118:15 119:10,10 distributor [1] 160:15 district [1] 113:17 diversified [3] 151:21 166:20 172:16 divesting [1] 152:2 divide [2] 34:2 70:13 divided [3] 15:15 17:12 48:21	dividend [15] 46:11,15 46:17,23 47:7 48:9 51:13 53:14 59:11 94:15 96:3 96:11 195:2,6,8 dividends [11] 47:15 51:18 53:24 54:8,10,20 95:15 98:23,24 125:3 195:1 dividing [1] 15:11 doable [1] 47:24 Doctor [2] 45:21 196:16 document [17] 48:19 49:6 50:15 51:21,22 54:15 57:23 58:11 81:5 81:6,12 136:7,10,12 137:13,17 183:6 documents [1] 79:7 doesn't [19] 16:9 17:7 18:14 35:22 56:17 64:24 86:24 88:10 94:4 98:6 130:11 136:10 145:9 147:17 171:24,25 174:16 176:22 189:18 dollars [6] 164:21 191:13 191:14,16,17,20 Dominion [2] 132:19 133:8 done [16] 40:20 42:3 43:20 59:4 63:1 73:20 75:11 83:22 84:19 144:19 150:3 176:5 188:16 191:24 192:4 198:2 double [1] 71:18 doubles [1] 167:5 doubt [4] 71:24 97:24 98:3 127:16 doubts [1] 71:21 down [31] 21:1 25:2 32:19,21 40:16 41:3 61:17 62:4,18 85:18,21 100:3,7 104:22 137:22 138:2 141:23 145:7 163:23 171:24 172:6 178:12 180:19 188:3,4 189:24 191:25 192:6 194:1 198:19 201:9 downgraded [4] 190:18 190:20 191:1,3 downward [5] 59:25 60:9 80:8 199:4,8 downwardly [2] 199:5 199:6 downwards [1] 197:2 dozen [1] 172:11 Dr [440] 2:8,10,17,21 3:2 3:5,10,14,24 4:5,14,25 5:8,13,17 6:1,6,18 7:1 7:24 9:4 10:5,13 11:5 12:7,21 13:21 14:7,12 14:21 15:7 16:25 17:5 17:18,21 18:1,2,12,20 19:10,15,23,24 20:12 21:12 22:22 23:20,23,25 24:1,9,22,23 25:3,10,13 25:14,21,22 26:24 27:9 27:20 28:1,14,16,21,22 29:3,6,10,14,22 30:5,10 30:16,21 31:1,7,12,18
---	---	---	--	---

31:23 32:9,13 33:2,9,21 34:3,11,23,24 35:7,15 36:4,13,22 37:6,11,16 37:20,22 38:4,11,15,22 39:5,16 40:1 41:4,10 42:16,21,25 43:11,17,24 44:8,14,23 45:8,22 46:3 46:15 47:1,10 48:1,11 48:15 49:2 50:14,22 51:1 51:25 52:5,10,15,20,24 53:3,8,11 54:3,9,16 55:1 55:6,13,19 56:1,12,18 57:1,9 58:14,22 59:12 60:16 61:8,25 62:8,21 62:25 63:5,15,25 64:24 65:4,10,13 66:1,25 67:8 67:14,22 68:9,14,21 69:9 69:13 70:2,16,20,21 71:6 71:11,20 72:7,15,16,25 73:14 74:9 75:2,16,25 76:15,19,25 77:10,14,19 78:1,9,13,21 79:2,5,8,13 79:17,20 80:1,4,10,16 80:24 81:13,16 82:17,24 83:4,14,19,22 84:7,11 84:15,22 85:4,11 86:12 86:20 87:8,18,20 88:1 88:15,20 89:9,15,20 90:5 90:20,22 91:2,13,17,23 92:17 93:3,21 94:6 95:6 95:22 96:7,14 97:3,9 98:2,14 99:4,8,15 100:8 100:12 101:12 102:7,15 103:3,5,13,20 104:3,9 104:13,18 105:1,7,15,23 106:5,10,15,22 107:1 108:12,22 109:13,22 110:3,9,13,21 111:8 112:13,20 113:13,22 114:18 115:16,20 116:3 116:16 117:15,23 118:17 119:12,24 120:3,8,11,17 121:10 122:9,17 123:25 124:24 125:4,8,14,19,25 126:15,21 127:5,6,10 128:9,21 129:23 130:15 131:15,24 132:3,12,23 132:25 133:5,9,13,21 134:1,9,11,15,19,24 135:5,10,18 136:3,8,14 136:20,23 137:14,17,23 138:8 139:13,18,19,25 140:7,16,25 141:25 142:7 142:18 143:4,9,17 144:7 144:20 146:11,16 147:25 148:14 149:10,20 150:8 151:1,10,16 152:12,24 153:9,13,22 154:3 155:17 156:2,11,23 157:1,3,6,9 157:12,22 158:1,4,7,13 158:16,20,22 162:18,21 164:6 165:17,19 166:1,9 170:7 175:9,11,14,15,20 177:12,12,14 181:17,19 182:16,18,24 185:8,10 187:14 190:12,14,17 196:18,22 198:4,5,11 200:25 201:2 dramatic [1] 173:8 dramatically [4] 160:2 183:23 190:25 194:1 draw [5] 26:21 35:18	36:14 78:7 197:3 drew [1] 88:17 driving [1] 47:20 drop [5] 62:6 65:24 66:23 102:5 173:8 dropped [6] 65:18,23 100:3,10 183:22 194:1 dropping [1] 152:11 drops [2] 85:20 167:7 due [4] 90:20 160:2 186:5 186:7 Duke [5] 3:21 4:11,13 132:20 133:3 Duquesne [1] 138:2 during [13] 5:21 21:1 26:19 72:14 78:25 98:23 98:24 173:18 174:19 183:11 186:3 187:2 190:6 Dutch [5] 2:15,18,20,23 2:25 -E- early [1] 78:11 earn [10] 19:12 107:16 107:24 109:4,12 111:21 113:6 159:16 160:10,18 earned [14] 15:22,25 16:2 77:7 80:20 81:22 141:21 159:2 161:21 166:6 167:12 168:4 179:25 180:4 earning [1] 145:12 earnings [27] 41:2,5,7 41:12,24 42:6,14 46:11 47:3,7 51:13,18 54:10 59:8,10 95:16 128:18,23 129:22 130:2,10,11,19 130:20,20,23,24 easing [1] 191:7 easy [5] 9:7 128:25 183:24,25 184:3 economics [6] 3:21 4:12 177:24 178:6,19 179:3 economists [1] 191:7 economy [4] 166:14 168:24 183:16 192:23 Edison [2] 52:8 63:11 Edison's [1] 63:22 EEI [1] 128:24 effect [12] 61:7,13 123:12 147:1,11 150:18 155:4 161:21 172:1 173:19,21 174:20 effort [1] 155:23 efforts [1] 24:15 eight [3] 39:11,11 193:5 either [6] 16:3 108:3 146:20 147:17 149:14 182:3 electric [20] 18:25 25:15 25:16,24 26:12 98:20 107:7,9,19 113:12 119:10 124:22 134:20 135:17 137:3 138:4 160:15 161:12 163:11 202:2	electricity [4] 9:15 161:1 161:3,18 electronic [1] 94:3 electronically [1] 58:7 element [1] 171:16 elements [1] 145:17 eliminated [2] 132:17 132:19 embark [1] 45:10 Emera [1] 177:6 emerged [2] 159:18 162:24 empirical [1] 176:25 employed [1] 66:24 employing [1] 62:14 employs [2] 32:25 33:3 encapsulate [1] 122:11 encapsulation [1] 81:7 end [9] 17:8,10 51:15,20 51:22 114:16 157:24 167:11 192:2 endowments [1] 127:19 energy [13] 4:22,22 5:11 56:6 61:12 132:20 133:3 160:5 166:15 186:17 187:17,22 196:5 engage [1] 191:6 England [2] 134:3 200:2 enormous [1] 183:18 ensure [1] 148:2 entered [2] 82:4 83:25 entire [7] 89:13,18 98:7 100:22 102:12 138:11,15 entirely [7] 2:22 18:4 30:13,24 33:7 35:25 182:11 entities [1] 5:16 entitled [3] 112:8 136:18 157:4 environment [8] 25:3,8 122:15 123:16,17,22 149:4,4 environments [2] 90:11 149:25 EPS [1] 47:2 equal [10] 13:1,6,11 27:20,24 45:7 75:14 96:17 115:2 149:24 equally [3] 31:6 34:25 70:20 equate [1] 82:14 equilibrium [2] 184:17 194:3 equities [2] 166:23 169:10 equity [162] 5:23 6:5,7,8 6:11 8:15,17 9:25 10:18 10:20 11:1,6,13,16,19 12:14,20,23 13:6,20 14:1 14:24 15:6 17:23 18:3 18:19,21,23,24 19:4,9 19:13,18,19 26:10 27:3 27:11,12,13,15 28:6 29:2 34:8,14 35:12 36:18,21	37:9 38:25 40:25 41:16 41:20,22,23 42:1,11 43:7 44:11 57:16,21 63:7 64:3 64:9,15,18 66:7,9,14,20 72:9 91:4 92:24 97:16 97:16,19 98:17 100:24 103:3,18,23,25 105:5 106:19 109:1 112:24 113:11 114:17 120:23 122:19 123:5,9,10,12,24 124:12 130:8,13 138:10 141:3,10,11 142:3,17,24 143:6,23 144:6,15,21,24 144:25 145:6,10,19 146:8 146:22 147:6,9,12,16,18 147:19 148:12,16 150:16 150:17 152:20,25 154:6 154:15,18,19 155:4,7,11 162:7,19 163:2,8,13,15 163:17,19,22 164:1 165:11,18 168:9,21 169:18 178:4,7,11 179:12 180:4,12,19 182:1 185:17 201:13 202:1,3 equivalent [3] 177:7 198:14,19 error [1] 158:9 errors [1] 85:14 especially [6] 117:6 119:4 141:14 145:20 148:5 151:23 essence [1] 149:2 essentially [12] 11:10 11:22 31:15 32:22 70:12 124:22 161:17 162:2,12 172:22 192:22 195:9 established [2] 53:18 54:15 estimate [57] 8:14 11:11 11:13,16,19 12:20 17:22 18:5 32:4 33:5 36:17,21 37:8 57:21 62:2 63:6,10 64:3,9,14,14,21 65:18 66:12,14,20 67:3 72:9 73:16,21 75:5 92:23,25 94:17 96:5,23 97:15,19 98:1,5 100:23 101:13,17 102:20 103:6 108:25 112:22 113:2 116:13 124:11 174:3,5,25 179:21 180:3,6 187:19 estimated [7] 15:9,10 57:16,18 64:6 100:16,23 estimates [50] 8:16 11:8 11:13 12:14 18:2 34:14 37:12 45:12 46:2,19,25 51:5 53:19 61:1 63:17 94:12,20 95:2 101:18 102:5 103:11 129:10 169:18 173:10,11,12,13 174:2,11,23 175:3,4 176:6,7,8,9 177:13,23 177:24 178:1,2,3,9,13 196:19,23 197:3 198:23 199:4,7 estimating [5] 8:17 10:18 12:9 138:9 150:4 estimation [2] 173:22 174:20 et [1] 21:11	euro [2] 190:22,24 Europe [2] 191:2 200:19 European [2] 184:23 194:8 evaluate [2] 6:10 9:10 event [1] 33:7 events [1] 192:16 everybody [4] 42:2 50:11 89:10 176:16 evidence [43] 3:8 14:22 14:25 15:5,8,20,21 17:6 28:7 41:11 58:17 60:15 65:15 74:6 89:25 90:7 92:9 94:24 95:8 105:11 108:6,11 112:23 120:18 123:4 125:13 140:5,21 142:10 143:21 144:12 145:8 150:17 156:24 158:14,17 166:22 168:20 183:12 197:7,18 199:2 200:12 evident [2] 159:16 162:9 evolves [1] 33:5 Ex [28] 13:22,23 14:9,10 29:17 30:8,19 32:2 33:12 33:18 35:5 38:8 40:21 43:9,25 44:2 67:5,24 68:1,4,13 71:8,25 72:4 72:21 84:17 97:10,25 exact [2] 108:3,8 exactly [9] 40:20 76:1 85:1 87:9 126:1 173:11 173:13 193:12 196:5 examination [3] 72:15 83:10 129:14 examine [4] 46:14,16,23 47:6 examined [4] 20:10 23:4 53:2 97:5 example [9] 25:24 36:22 109:19,24 115:7 160:14 163:20 166:15 167:16 examples [1] 109:18 exceeds [2] 16:1 87:1 except [5] 43:8 159:25 185:3 189:14 191:2 excess [1] 68:8 exchange [2] 121:9 194:24 Excuse [1] 58:6 Exelon [2] 57:14 61:13 exercise [1] 92:13 exhibit [20] 45:1,2,4,16 46:7,12 56:5,6 61:11 63:9 64:24 65:7 78:4,4 79:15 86:10 99:8,9 101:5 134:9 exhibits [3] 81:8 105:11 149:15 existing [1] 100:4 exists [1] 71:13 expanded [2] 170:17,20 expect [10] 13:3 62:17 65:24 67:19 85:11 110:10 121:21 165:8 166:15
---	---	---	---	--

178:11 expectations [5] 46:20 47:1,5,23 72:11 expected [17] 13:13 15:11,12,14,22 76:16,17 77:18,25 80:22 97:21 100:11 167:20,24 177:19 178:4 192:23 expects [1] 177:6 expensive [1] 21:15 experience [15] 4:18 22:7 38:19 46:8 77:1,11 118:3 121:24 147:16 154:5 157:10 159:24 168:3 197:22 200:14 experienced [6] 78:5 150:9 162:1 168:11,13 168:16 experiences [1] 166:13 expert [2] 121:20 193:18 explain [12] 12:5,19 14:20 15:4 25:19 122:6 122:8 144:16 149:23 150:14 151:13 153:25 explained [3] 17:15 75:17 142:12 explains [1] 12:3 explanation [3] 17:23 71:12 122:12 exposition [1] 117:16 expressed [2] 68:19 94:10 extends [1] 202:1 extensive [7] 4:17 7:6 7:13 59:4 100:19 201:22 201:25 extensively [2] 4:11 20:13 extent [2] 184:25 188:6 extra [1] 190:7 extract [2] 121:5 166:12 extracts [1] 167:2 extremely [1] 199:22	fair [32] 8:23 9:20 31:15 31:21,24 32:5 80:23 86:1 107:16,24 110:24 111:16 112:1 145:12,13,18 148:4 150:4,16 151:8 157:4 164:8 165:18 179:6,7 188:25 189:5,23,25 190:3 194:14 196:14 fairly [5] 11:15 40:2 128:25 129:15 155:21 fall [2] 61:4 88:10 fallen [1] 152:21 falling [1] 77:13 falls [1] 173:24 familiar [5] 49:1 52:23 55:16,18 81:11 familiarize [1] 52:18 fancy [1] 191:8 far [4] 87:1 148:16 170:4 180:25 fashion [1] 88:7 fast [1] 129:10 feature [1] 193:4 Fed [1] 183:1 Federal [7] 5:11 184:22 191:4,12,19 194:8,15 feed [1] 66:14 feeling [1] 151:11 feelings [1] 93:11 FEI [2] 106:3,14 felt [2] 170:12 199:9 FERC [1] 5:12 Fernandez [2] 170:8,10 few [4] 14:17 16:23 19:16 129:17 fewer [1] 151:24 field [1] 118:4 fifty [1] 187:23 fight [1] 171:10 file [3] 1:6 44:9 105:10 filed [9] 1:10,18,23 2:3 6:3 43:5 105:12 158:14 183:12 fill [1] 51:8 final [2] 66:15 100:23 finally [1] 27:5 finance [8] 3:20 4:8,12 141:5 157:13,15,17 170:12 financial [97] 4:2,4 8:24 9:2,22 10:4,7 20:1,2,9 20:11,23 22:19 24:7 26:2 26:4,5 36:8 41:13,15 103:14 107:9,24 114:8 114:12 115:7 116:19,24 119:3,22 121:13,25 122:4 124:6 127:24 137:10 140:4,13,15,23 141:2,9 141:9 142:4,12,21 145:15 145:24 148:2,8 149:5 151:23 153:5,20 154:2 154:10,13,14 155:1 157:20 162:25 163:4 170:21 171:15 173:7,20 174:9,10,12,13,19,21	176:15 182:19 183:4,10 183:11,15,21,22,24 184:1 184:3,4 185:1,21,22 187:2 188:1,8,14 190:6 190:9 191:18 193:10 196:20 199:24 fine [3] 105:22 118:21 166:7 finish [1] 202:21 finished [5] 32:10 156:9 167:13 175:10,16 firing [2] 163:5 182:1 firm [4] 4:3 45:16 46:6 46:11 first [23] 1:6 2:14 4:20 8:1 19:25 20:10 31:25 50:15 61:12 64:1 81:19 84:24 129:24 140:3,19 144:22 149:14 154:2 164:22 177:17 192:17 196:23 197:12 fit [2] 102:9,10 five [21] 3:17 6:19 24:4 36:23 42:20 46:7 53:16 57:25 113:9 114:2 156:14 164:22,24 165:5 169:12 173:14 174:2,4,19 198:20 202:3 five-year [1] 46:9 fixed [2] 9:17 164:23 flexibility [7] 24:7 26:2 26:5 153:5,20 154:2 155:2 flip [1] 201:7 floatation [2] 154:5,7 flood [1] 192:10 floor [1] 196:7 floors [1] 185:18 flow [18] 11:7 12:24 25:11 27:15 29:7 31:22 32:1,2,4,23,25 35:5 44:2 44:24 45:3,5 141:17,17 flows [2] 13:2 195:8 fluctuation [1] 189:15 fluctuations [2] 167:2 167:15 focus [2] 144:21 187:20 focused [1] 22:1 focusing [2] 21:23 187:21 follow [1] 145:13 following [2] 45:16 137:2 forecast [29] 40:22 46:9 46:9 47:3 55:24 56:10 56:15 57:13 59:15 60:1 67:10,12 93:5 94:14 95:10,12,20 96:2,9,21 96:22 99:2 186:20,23 187:16 192:14,22 195:24 196:8 forecasted [2] 40:24 193:2 forecasting [1] 192:19 forecasts [6] 47:19 57:14 59:8 93:11 94:25 96:20	foreclosures [1] 192:10 foregoing [1] 204:2 foreign [3] 194:10 195:5 195:11 forest [1] 173:25 forever [1] 56:25 forget [2] 126:1 134:2 forgotten [1] 146:2 formal [1] 102:19 formed [1] 198:11 former [1] 106:3 formula [12] 54:7 185:9 186:18 187:23 188:5,23 189:4,9,12,17,21 190:1 Fortis [4] 163:9,20 164:20 177:7 forward [13] 55:10 58:15 90:21,24 91:1 159:12 169:24 174:24 175:4 176:25 178:9 181:3 188:10 forward-looking [2] 97:15 98:16 found [4] 3:7 25:3 40:18 60:23 four [5] 1:5,16 71:4 163:5 169:12 FPL [2] 132:20 133:12 frame [1] 114:21 France [1] 191:1 frankly [1] 146:3 free [10] 13:12 24:1 73:17 73:22,24 74:2,12 75:7,9 81:2 frequently [2] 15:17 40:2 friendly [1] 123:22 front [1] 67:7 fuel [2] 161:17 181:2 full [3] 143:24 157:24 187:2 fully [2] 162:23 184:12 fund [1] 178:18 fundamental [2] 160:7 161:2 fundamentally [1] 115:16 funds [6] 169:10,13 179:16,19 180:4,7 Fuqua [3] 3:21,25 4:2 future [11] 13:2 46:19 47:1,4 60:1 67:20 72:6 90:3 96:18 191:23 197:23	51:16,19 53:21,22 54:1 54:20,24 61:14 68:8 94:21 gears [1] 18:17 general [13] 9:24 20:1 22:7 60:17 88:14 101:20 102:11 117:8 123:3,21 164:11 196:20 204:4 generally [18] 8:18 10:6 12:22 23:6 38:18,23 41:22 122:14 150:20,22 154:9 155:6 168:1 169:17 171:23,25 179:2 200:8 generate [5] 59:3 161:18 178:17 185:20 186:1 generation [1] 161:13 generators [1] 173:2 generic [3] 49:22 50:18 121:6 gentleman [1] 136:25 German [1] 2:15 Germany [1] 191:3 given [12] 2:2 17:24 28:9 71:7 82:20 112:18 122:22 122:23 152:14 166:16 189:17 190:8 giving [5] 15:1 39:7,22 101:13 147:3 global [6] 174:9 184:21 194:19 195:16,20 196:11 globally [1] 157:19 GLYNN [15] 49:7,11,16 50:6,10 79:10 81:23 82:3 83:24 93:13,17 139:2 156:13 202:15,22 goes [11] 26:11 53:20 56:16 90:8 121:10 147:11 171:23,24 172:3 189:14 201:9 gone [6] 100:7 101:21 170:4 189:17 197:20,21 good [8] 1:5 16:4 28:21 28:23 139:18,20 168:9 201:6 Google [2] 176:8,11 government [18] 24:11 24:17 73:22 74:11 97:24 181:25 182:8 190:18,21 191:11,16 193:7 194:12 195:12,15,22 197:14 200:15 governor [3] 163:3 199:23 200:1 grade [16] 124:25 127:4 127:5,14,15,17,23,25 128:1,2 137:9,10 145:1 145:2,8 146:24 gradually [1] 173:22 grant [1] 108:24 granted [1] 109:4 graph [7] 79:5,21 80:4 182:16 189:8 190:12 196:17 graphic [1] 79:23 graphs [1] 79:21 great [7] 56:6,8,10 57:6
-F-				
faced [2] 160:1 161:25 facility [1] 1:21 facing [2] 160:7 181:4 fact [33] 26:21 36:7 38:8 39:8 58:13 73:8 86:23 88:21 89:22 94:20 95:4 96:15 109:1 116:1 120:11 122:12 123:19 127:18 131:20 146:24 160:1 170:17 176:12 179:23,24 181:5 183:22 184:7 185:12 194:9 199:9 201:14,24 factor [2] 13:12 124:3 factors [10] 24:21 109:14 118:6 123:14 124:1,6 140:22 142:14,16 160:11 factual [1] 35:16 failed [3] 110:1 188:15 200:5				
-G-				
gains [2] 77:1,2 gas [20] 19:1 25:15,17 98:19,22 104:10,15,17 104:17,19,24 105:5 106:4 118:12,15 119:9 124:23 134:20 137:3 160:3 gather [2] 48:3 100:9 GDP [12] 47:16 48:24				

57:16 63:14,23 greater [8] 16:7 18:9,13 20:4 38:24 39:2,3 45:8 greatly [1] 118:8 GREENE [31] 139:17 139:21 140:2,9,18 141:22 142:2,9 143:1,7,12,19 144:9 146:4,13 147:20 148:10,18 149:12,22 150:19 151:5,12 152:9 152:18 153:3,11,15,24 155:13 156:1 grid [1] 172:23 group [29] 10:15,16 11:15,25 15:12 45:3 64:22 69:25 70:3,4,4 71:24 89:11 98:19,20,23 100:18 117:6 128:5 131:17 134:12 138:11,15 138:16 148:23 157:17 163:10 198:6,19 grouping [2] 124:19,21 groups [21] 6:9,14,15,16 6:24 7:2,3,21,23,25 10:11,25 11:2 12:6,8,12 13:24 22:12 97:21 122:24 124:18 grow [4] 47:15 54:12,20 183:17 grown [1] 51:18 growth [101] 8:16 11:9 46:8,9,15,17,19,23 47:1 47:3,4 48:9,21,24 51:5 51:12,16,19 53:14,19,21 53:22,23,24 54:20,24 55:11,17,22,23 56:10,15 56:25 57:13,13,18 58:2 58:16,20,24 59:1,2,4,8,9 59:10,11,13,15,17,18,22 60:1,2,4,7,13,14,20,25 61:5,10,15,16,19,22 62:20 63:12 64:6 65:3,7 65:14,17,19,22 66:3,4,6 66:12,13,16,18,19,24 67:3,10,20,21 68:7 94:11 94:20,21 95:2,14,15,16 96:19,21,22,23 99:2 guarantee [1] 73:19 guaranteed [1] 184:15 guess [5] 74:24 89:2 113:1 149:13,23 guidance [1] 91:10 guide [2] 90:2,17 guidelines [1] 127:20	hard [5] 50:11 81:25 116:5 129:10 145:22 hate [1] 168:24 Hawaiian [2] 135:17 138:4 HAYES [5] 1:4 49:21 58:5 93:23 94:2 head [2] 86:3 200:4 headed [1] 137:1 headquarters [1] 134:25 health [1] 145:15 hear [3] 95:23 174:1 201:10 heard [2] 161:9 204:5 hearing [12] 8:24 48:8 48:20 49:25 159:7 160:5 178:24 183:16 189:5,6 198:22 204:3 hearings [2] 5:6 179:17 heavy [1] 9:16 held [2] 76:18 157:15 help [2] 8:25 137:1 helpful [2] 67:7 144:13 hereby [1] 204:2 hidden [1] 45:23 high [19] 11:19 57:19 79:1 114:9,11,12,14,17 131:21 143:10 161:21 166:15 172:1 179:20,23 181:13 185:13 188:17 192:21 higher [59] 9:25 10:3,7 17:10 24:10 25:7,23 26:6 27:1 34:9 35:12 36:8 41:22 61:14,15 77:25 78:24 85:8 88:23 90:15 91:19 96:10 102:19 104:7 107:19 111:5 112:2,19 116:8 118:15 119:21 120:13,20 122:2,25 142:24 146:20,22 147:3 149:18 150:6,21 153:1 155:7 164:1 168:16 171:12 181:8,15 193:3,8 193:14 197:13,17,19,24 199:10,11,13 highest [1] 161:11 highly [8] 59:7,14 66:17 73:25 77:3 81:3 95:11 95:13 himself [1] 104:4 hindsight [1] 59:20 historic [18] 29:19 30:9 30:14 33:13 47:13 85:10 87:7 88:7,11 90:22 166:5 166:8,11 169:7 170:2 180:25 181:2 197:18 historical [23] 8:19 15:20 16:11 17:11,13 18:7,9 29:24,25 40:3 46:15,16,23 53:18 59:9 59:10,10 72:20 95:14,15 95:15 101:15,16 historically [2] 149:15 193:15	hold [7] 16:8 76:23 103:14 157:14 171:22 172:12,16 holders [1] 115:10 holding [5] 80:21 174:14 175:1 185:24 195:3 Holdings [1] 138:2 holds [1] 172:11 home [1] 86:23 honest [2] 175:17 201:20 horizon [1] 167:21 horrific [1] 173:20 house [3] 163:19 165:7 165:12 housing [2] 192:7,11 huge [6] 183:1,10,14 185:23 191:22 200:16 hundred [2] 146:17 167:10 hundreds [2] 170:15,15 hurt [1] 109:20	-I- IBS [1] 99:1 idea [2] 66:2 67:1 identical [1] 108:4 IESE [1] 170:10 ignore [1] 147:21 ignored [1] 201:11 Illinois [1] 113:18 illustrate [1] 60:12 illustrative [2] 56:8 63:15 immediately [2] 163:15 192:15 impact [9] 12:12 24:13 84:22 87:10 169:19 174:14,15 190:22 195:16 implicit [1] 24:25 importance [1] 187:25 important [12] 61:18 117:7,7,9 122:20 127:9 145:10 148:15 160:20 178:13,14 189:20 improve [1] 165:6 improving [1] 183:14 Inc [2] 204:4,13 Incidentally [1] 179:15 include [3] 1:9 22:9 170:20 included [7] 6:19,22 59:16 61:19 99:1 107:5 153:6 includes [4] 7:5,11 8:4 20:22 including [8] 5:6 24:6 44:10 90:11 94:20 105:11 124:6,7 income [3] 129:16 172:25 178:17 inconsistency [2] 42:3 42:7	inconsistent [3] 41:25 42:5 61:1 incorporate [1] 152:16 Incorporated [1] 104:25 incorrect [1] 36:5 increase [8] 25:1 77:24 98:11 101:2 107:18 183:20 186:15 192:24 increased [6] 77:9 103:25 118:8 157:18 190:25 195:15 increases [5] 32:18,20 102:14 141:2 166:17 increasing [2] 90:10 152:6 increasingly [1] 152:6 indeed [3] 100:5 102:15 158:20 independent [4] 111:14 148:13,15 178:10 index [10] 6:22 17:13 30:15 68:18 78:6 84:18 86:7 182:19 183:2 194:24 Indiana [1] 134:25 indicate [17] 18:6 47:2 67:17 69:14 87:16 98:17 113:25 117:12 125:12 130:25 145:4 155:20 168:13 173:11,12 176:17 176:22 indicated [15] 7:21 39:22 57:4 62:1 65:15 79:8 93:3 94:18 98:14 108:6 110:18 117:15 118:4 138:13 163:4 indicates [9] 15:24 18:12 46:21 102:17 170:1 183:3 183:7,23,24 indicating [3] 16:14 123:23 182:9 indication [1] 148:8 indicator [11] 117:18 119:19 123:9 128:22,25 129:2 141:18 143:22 144:1 146:7 147:15 indicators [11] 19:18 116:11,12,15,24 117:17 117:20 127:12 129:9 146:22 183:4 indices [3] 23:11 76:9 92:21 individual [6] 22:24 57:5 64:18,19 76:3 166:19 industries [1] 25:17 industrious [1] 2:25 inference [1] 75:1 inflation [2] 184:12 191:23 influence [2] 92:2 196:13 influenced [1] 107:10 influx [1] 194:10 information [30] 33:4 45:10 46:14,22 47:9 48:3	49:12 59:16 68:24 69:8 79:11 81:7 82:4 83:25 86:8 88:5 91:14 93:18 123:1 129:7 148:25 152:13,14 158:18 161:8 178:1 185:15 186:3,11 199:14 injected [1] 191:18 inputs [1] 43:9 insight [2] 71:8,16 instance [8] 57:14 83:8 110:2 116:17 123:14,18 125:17 129:13 instead [3] 84:16 112:10 158:9 Institute [3] 69:7 81:10 82:11 instrument [1] 73:22 integral [2] 97:25 99:3 integrated [4] 118:16 119:11 135:8 161:12 integrity [2] 107:24 148:2 intending [1] 170:18 intense [1] 188:7 interest [57] 13:6 24:17 25:1,2,7 32:16,19,21 40:11,15,16,24 69:15 73:24 75:6,8 76:23 77:8 77:9,23 78:25 84:22 85:17 90:11 91:18,21 97:23 98:9,11 100:22 101:1,3,22 102:1,14,18 102:21 103:1 104:1,5,7 141:8,14,15,19 148:11 184:17,18,20 192:23 193:2,17,22,24 194:3 195:10 200:21 interesting [1] 171:1 interests [2] 135:16,21 international [3] 157:18 169:10 199:25 interpret [4] 24:19,23 35:17 89:23 interrogatory [1] 158:18 intersection [1] 198:7 interval [1] 100:11 intervened [1] 184:25 introduction [1] 5:20 inventory [1] 185:24 inverse [1] 102:25 invest [1] 169:10 investing [5] 13:4,9 143:22 169:4 194:16 investment [25] 95:9 97:17 107:17,25 124:25 126:9 127:4,5,14,15,17 127:19,20,23,25 128:1,2 137:9 145:1,8 146:24 167:19 170:22 195:1,4 investments [5] 77:4 126:25 127:22 129:4 178:23 investor [25] 13:8 63:18 63:20 67:19 94:17 96:5
---	---	---	---	--	--

114:17 120:23 122:19 123:24 130:13 141:12 142:4,17 144:6,15,24 146:8 148:12,16,17 167:11 168:3 172:10 184:14 investor's [4] 72:10 76:16 107:8 113:3 investors [38] 10:20 13:3 47:4 57:12 58:24 59:23 60:1 76:22 77:7,17,24 92:2 94:13,24 95:8,19 96:1,9 107:11,18,21,25 108:16 109:16,20 110:10 117:4 126:3,24 141:11 144:25 184:19 194:4,16 195:3,5,11 196:11 investors' [2] 46:19,25 involve [1] 9:16 involved [1] 21:16 involvement [1] 7:6 involves [2] 12:10 66:5 IQ [1] 176:14 IR [4] 49:20,25 50:15 51:4 island [1] 161:1 isolation [1] 124:3 issue [7] 19:22 22:21 94:23 130:5 154:5 165:13 199:13 issued [1] 164:20 issues [6] 19:16 92:4 155:15 164:13,13 187:20 issuing [1] 165:1 Item [5] 49:12 79:11 82:5 83:25 93:18 items [1] 22:24 itself [2] 11:4 88:16	69:17 70:7,18,23 71:15 72:3,13,18 73:2 74:5,23 75:13,22 76:13,21 77:5 77:12,16,21 78:3,16,23 79:4,12,19 80:3,13,18 81:4,15,24 82:1,6,19 83:1,11,16,21 84:2,9,13 85:6 86:5,14 87:3,11,22 88:4 89:1,8,24 90:19 91:5,16 92:11 93:2,15 93:19,25 94:5 95:17,24 96:12,25 97:8 98:13 99:7 99:17 101:4,23 103:2,12 104:8,16,20 105:3,9,20 105:25 106:7,12,17,25 108:14 109:6,15,25 110:6 110:12 111:1 112:5,15 113:7,15,24 115:15,24 116:14 117:14 118:11 119:7,18 120:1,5,10 121:1 123:13 124:16 125:1,6,10,16,21 126:10 126:17 127:2,8 128:4,16 129:12 130:3 131:5,23 132:6,14 133:2,7,11,15 133:24 134:8,13,17,22 135:3,7,14,20 136:6,11 136:16,22 137:16,25 138:20 139:3,4,8,12,24 144:3 152:20 156:21 157:2,8,21 158:3,12,19 162:17 164:3 165:16 170:5 175:5,13,18 177:11 181:16 182:15,20 185:7 187:11 190:10 196:15 200:24 202:11 judge [5] 158:20 171:11 201:14,18,19 judged [2] 23:14 39:8 judgment [14] 87:24 88:2 89:16 90:1 91:6 92:13 111:14 118:19 161:14 168:13 171:8 176:24 197:11 199:18 Judy [2] 204:2,12 July [2] 190:20 195:13 June [6] 99:10,24,25 101:25 102:3 192:14 jurisdictions [13] 21:9 107:13,20 108:17 109:2 109:17 111:11 113:10,12 113:21 114:3,7,11 justification [1] 41:24	kind [2] 102:22 202:20 kinds [2] 118:6,8 knowing [1] 47:22 knowledge [2] 110:8 187:3 known [1] 103:15	list [3] 1:8 51:14 137:2 literature [1] 102:23 long-term [5] 183:6 191:25 192:4 193:7,21 longer [8] 7:18 8:21 71:2 74:15,17 75:14 76:11 202:18 longest [4] 40:9 75:10 75:18 92:19 look [109] 8:2 9:10 11:3 12:4 23:2 37:11 40:5,6,7 40:13 45:1 55:3 56:5 63:9,10 69:10 77:6 78:4 88:18 90:6 98:6 100:20 103:7,9,9 112:23 114:24 115:6,8,11 116:11,17 117:17,21 124:1,2 127:3 128:23 129:3 130:22 131:3 132:8 140:19 141:17,20 142:5,13 144:14,25 145:2,3 146:25 149:16 150:23 151:14 158:23,23 159:14,15 160:9,11 161:23 162:11 163:7,11 165:21,21,25 166:11,18,21 167:15,16 167:20,21 168:17,18,24 169:21 172:10,17 173:5 173:10 174:2,22,24 176:10 177:20 180:9 181:5,11 184:7 185:13 186:12 189:10 192:13,18 193:11,23 194:17,20 196:1,25 197:17,25 198:1 198:2,13 199:16 looked [9] 20:13 21:14 22:21 60:19,24 74:3 92:3 116:10 186:13 looking [44] 11:22 12:11 15:8,20 22:24 34:4 36:17 42:10 43:14,15 51:24 52:6,11 61:10 71:13 74:2 74:13 87:5,6,9 88:11 100:18 101:5 114:22 121:18 135:15,15 140:15 144:4,5 166:4,8 167:18 171:2 178:10,21 179:6 179:10 186:2 187:5 191:20 197:11 200:4,12 looks [10] 32:14,18 33:23 52:4 98:7,8 144:24 148:9 166:10,10 loose [1] 183:24 lose [2] 167:8 184:15 loss [1] 77:11 losses [2] 77:2,3 lots [1] 191:8 low [28] 11:21 25:2,4,7 57:20 102:18 104:6,7 114:8,9,13 150:2 168:7 173:16,19 174:17 179:18 180:15,18,21 184:5 195:21 197:3 198:3,5,11 198:14 200:21 lower [32] 9:25 17:8 23:7 24:8 77:17 94:15,15 95:21 96:3,3,11 116:8 121:16 122:4 145:20 147:2,5,6,7,8,9,13 148:6	148:7 163:12 170:2 175:3 179:11 192:4 201:7,17 202:9 lowest [6] 33:15 118:13 118:14,14 198:8,14				
-J-								
James [2] 2:9,10 January [6] 1:10,13,14 1:25 204:5,11 jeopardy [1] 160:22 Jersey [3] 52:9 113:18 132:22 job [2] 150:3 177:9 John's [2] 204:7,10 Johnson [277] 28:20,24 29:5,12,16 30:2,7,12,18 30:23 31:3,9,14,20 32:7 32:11,24 33:6,11,25 34:6 34:22 35:2,9,24 36:10 37:3,10,18 38:2,6,13,17 39:1,14,21 41:1,8 42:12 42:19,23 43:4,13,22 44:7 44:16,22 45:19,25 46:5 48:5,13,17 49:4,9,13,18 49:24 50:4,8,13,24 51:3 52:2,7,13,17,22 53:1,5 53:10 54:5,14 55:4,8,15 55:21 56:3,14,22 57:7 57:22 58:6,9 60:10 61:2 61:24 62:12,23 63:3,8 64:23 65:6,12 66:21 67:4 67:16 68:2,11,23 69:11	-K-							
Kansas [1] 183:1 keep [1] 54:1 Kelly [52] 2:7,11 3:4,12 3:16 4:1,7,16 5:2,10,15 5:19 6:13,23 7:20 8:22 10:2,9,24 12:2,16 13:15 14:5,16 15:3 16:18 17:3 17:14,20 18:16 19:5,14 20:8 21:4 22:15 23:19 24:18 25:9,18 26:20 27:4 27:23 28:13,18 44:18 45:17 50:2 85:25 156:6 190:16 202:19 203:1 key [1] 114:14								
-L-								
Labrador [1] 204:8 large [10] 64:15 71:4,7 71:10 100:18 142:25 143:11 152:4 155:3 176:18 larger [9] 8:9 10:14 11:17,24 36:25 69:25 70:3,3 134:12 last [31] 18:7 21:17,22 42:15,18,20 44:9 51:19 52:1 70:25 71:9,17 88:22 103:21,22 111:17 118:7 129:16 137:21 150:11 153:4 159:7,18 161:20 166:16 168:10 169:23 178:12 180:22 192:12 193:5 late [1] 32:15 latest [5] 46:12 98:6 152:13 170:9 171:6 Lawrence [2] 156:23 157:1 learn [2] 120:12,15 least [18] 16:15 60:23 95:8 99:1 113:9,20 125:7 128:11 151:19 152:22 154:24 155:5,22 159:7 159:18 176:18 195:18 197:14 leave [1] 114:15 legal [1] 127:20 Lehman [2] 174:7 188:15 length [1] 161:24 lengthy [1] 69:20 less [26] 15:18 19:2 20:7 26:9,14,17,22 47:16 63:21 86:17 94:21 108:25 112:10 114:23 115:8 116:1,22 117:11 124:10 144:4 146:9,14 150:15 150:16 152:10 195:19 level [2] 32:16 145:8 leverage [2] 141:4,9 liabilities [1] 178:18 lie [1] 102:9 light [2] 85:12 138:2 likely [1] 59:19 limit [2] 126:3,24 limited [1] 126:7 line [16] 17:9 20:25 94:22 99:13,25 102:3,10,10 124:9 125:20,22 126:22 163:23 176:20 194:21,23 lines [2] 118:22,24 liquidity [4] 183:20 185:12,18 186:7								
-M-								
m [1] 103:7 MacDonald [3] 27:10 27:20 186:22 MacDonald's [2] 6:2 27:6 Madame [1] 139:16 magnitude [1] 65:25 Mainline [5] 159:23,24 160:2,8,23 maintain [3] 107:23 108:8 155:8 maintaining [1] 145:23 major [4] 9:21 114:5 160:5 173:2 maker [2] 195:17,20 makers [3] 184:2 194:19 196:11 makes [6] 19:24 74:18 147:7 177:5 195:2 200:22 man [1] 86:3 managers [1] 127:19 manner [2] 107:16 108:20 March [12] 1:18 99:12 99:18,21 100:4 101:10 101:19,25 102:2 103:17 107:4 121:4 markedly [1] 48:23 marker [1] 184:22 market [98] 13:14 15:13 15:16,18 16:5,13 17:13 20:9,19,20 23:11 24:3 41:18,20,20,25 86:24 89:18 129:3,5,8,25 130:18 142:23 143:6,10 148:6 154:12,14,19,20 155:1,4,9,19,24 160:13 165:23 166:12,19,21 168:10,20,21,22 169:17 170:12 171:5,9,13,20,22 171:23,24 172:2,3,5,9 172:17 173:16 175:2 177:5,8,18,20 178:5,7 178:11 179:5,8,12,22,23 180:12,17,19 181:14,25 182:2,4,4,10 183:25 184:1 185:12,25 192:3 192:11 193:7,14 195:18 197:1,4,18,19,23 199:11 199:18 marketplace [9] 23:2 23:14 41:17 115:3 116:9 124:8 145:4 155:9,12 markets [13] 20:1,3,11 22:19 103:14 127:24 145:22 165:6 168:9 181:22 185:1 193:5 196:20 marks [1] 183:21								

Maryland [1] 113:18 material [10] 1:21 3:7 36:12,15 37:5 123:8 129:20 158:8 185:6 188:22 math [1] 86:3 matter [6] 3:6,9 35:16 73:6 121:5 204:4 matters [2] 12:15 172:16 maturity [2] 76:18,23 may [15] 57:10,11,11,19 57:20 104:25 105:13 108:24 116:1 144:10 145:22,25 148:11 159:5 183:13 McShane [40] 1:7 29:18 30:4 33:13 48:6,18,19 50:18 51:11,23 53:13 55:16 57:24 65:14 72:15 73:12 74:7 84:20 88:8 94:12 95:5 129:14 132:15 140:12 142:10 161:10 175:24,25 176:2 181:20 182:11 185:5 186:17,19 187:16 189:2 196:5 198:3 198:12,21 McShane's [7] 1:9 54:17 61:25 144:11 187:19 190:1 199:7 mean [19] 8:12 22:2 63:15 78:17 88:6 89:21 99:1 109:18 126:12 143:6 159:21 174:16 176:22 177:8 181:18 182:22 185:1 191:25 198:16 means [10] 161:12 165:21 171:21 172:1 175:22 179:4 184:13,15 198:18 204:9 meant [8] 56:15,20 72:5 72:8,10 96:8 122:10 191:9 measure [11] 9:7,8,9 12:15 16:4 20:17,18 119:15 128:19 144:23 177:21 measured [6] 12:10 23:8 145:3,4 146:21 154:12 measures [5] 116:6,8 171:19 181:4 183:19 measuring [1] 172:8 mechanics [1] 70:15 mechanism [4] 161:17 196:1 202:5,7 mechanisms [11] 21:11 21:20,20 22:6 117:25 118:1,9,10 151:25 152:1 152:8 median [1] 25:25 medium [1] 164:14 meet [3] 128:7 130:1 159:20 meeting [1] 159:25 members [1] 180:23 mentioned [5] 24:21 102:15 118:2 164:7 199:20	mentions [2] 186:13,14 Mercer [4] 178:1,2,8,19 merely [1] 180:17 met [2] 47:23 53:19 method [11] 12:25 32:23 33:1,13 35:21 38:21 42:6 65:17 73:11 87:7 103:11 methodology [3] 17:24 23:21 61:6 methods [18] 5:24 6:8 6:11 11:1,6 12:17,19,23 13:17,24 27:11,13 34:7 36:17,20 38:25 92:25 103:8 metrics [4] 121:25 122:4 142:15 147:10 mid [2] 40:8 200:17 middle [1] 14:7 midwest [1] 2:23 might [14] 36:15 45:9 53:4 67:7 74:6,14 116:19 117:21 130:12,20,25 166:14 176:10 189:1 million [1] 164:21 mimic [1] 187:1 mind [2] 93:7 109:19 mine [2] 120:21 176:24 minimal [3] 110:16,20 111:3 minimum [1] 108:1 minor [1] 189:14 minus [1] 167:10 minute [1] 156:15 minutes [2] 16:23 139:5 minutia [1] 161:24 mistake [1] 158:9 mix [1] 76:4 model [30] 11:8 12:25 13:10 14:18 16:11 27:14 29:7 32:4 46:18,25 54:12 55:9,12,17,22 58:23,25 60:6,13 62:3,15,20 63:22 67:10,12,21 92:13 96:16 96:24 194:7 moment [13] 52:18 67:9 87:5 134:7 158:11 160:23 168:8 181:22,25 184:14 185:3 193:23 200:20 moments [2] 14:17 19:16 monetary [2] 24:16 192:1 money [7] 191:10,11,17 192:3,9 194:11,11 month [6] 44:3 97:17,22 100:24 191:13,17 months [3] 32:14 190:23 192:12 Moody's [4] 2:2 122:13 123:14 138:14 moral [1] 151:4 morning [8] 1:5,10 2:3 28:21,23 100:14 144:2 146:15	mortgage [2] 191:15 192:6 mortgages [1] 192:8 Moss [2] 204:2,12 most [17] 2:1,22 7:16 21:25 37:14 64:21 75:19 114:2 117:7 122:20 127:18 152:2 168:8 171:2 176:18,21 185:23 mostly [3] 45:6 70:5 92:6 move [5] 59:6,17 143:13 163:21,22 moved [3] 169:17 200:3 200:16 moves [1] 171:20 moving [2] 21:1 148:19 Ms [64] 1:7,9 29:18 30:3 33:12 48:6,18,18 49:7 49:11,16 50:6,10,17 51:10,23 53:12 54:16 55:16 57:23 61:25 65:14 72:15 73:12 74:7 79:10 81:23 82:3 83:24 84:20 88:8 93:13,17 94:12 95:5 129:14 132:15 139:2 140:12 142:10 144:11 156:13 161:10 164:7 175:24,25 176:2 181:20 182:11 185:4 186:17,19 187:16,18 188:20 189:2 189:25 196:5 198:2,12 198:21 199:6 202:15,22 MsShane [1] 52:3 multi-stage [1] 60:25 multiple [1] 21:8 multiply [1] 191:19 multiplying [1] 66:7 must [1] 131:10	Nesbitt [1] 164:18 never [4] 37:23 110:7 189:5 190:19 new [6] 52:8 113:18,18 132:22 134:3 154:6 Newfoundland [50] 2:2 6:4,7,12 17:22 18:3,18 18:21 19:8,11 27:2 28:6 91:11 93:1 107:3 110:15 110:19,23 112:4,7,12 121:4 123:18 129:21 130:8,10 138:6,11 149:2 157:5 158:21 159:14 160:24 161:6,15 162:12 162:19 163:7,22,25 164:25 165:9,13 188:20 194:13 201:3,18,25 204:4 204:7 newspaper [1] 193:19 next [18] 2:8 12:17 22:16 77:8,22 81:5,21 82:8 83:22 99:23 118:14,14 166:6 167:7 170:6 182:16 189:8 192:13 NextEra [2] 132:20 133:12 nine [1] 36:24 NiSource [5] 134:10,18 134:20 135:15 137:22 NL [1] 204:10 Nobody [1] 177:6 noise [1] 173:25 Non [1] 128:1 non-energy [1] 5:16 non-investment [1] 145:1 nor [2] 146:22 180:8 normal [7] 171:17 181:17,18 182:23 185:2 192:22 193:1 normalization [1] 22:25 normally [8] 141:1,5 142:19 154:8,16 165:17 165:20,20 North [3] 5:6 160:3 170:16 Northeast [1] 134:2 Northwest [1] 52:9 Northwestern [1] 4:9 note [4] 41:12 92:3 95:7 166:9 noted [1] 80:6 notes [2] 138:25 164:14 nothing [6] 81:6 88:9 139:13 158:11 174:3 180:10 notice [2] 164:7 193:2 Nova [5] 161:9,10,14,18 161:21 November [3] 121:7 157:5 164:20 now [70] 2:6 4:10 5:20 6:14 7:21 12:3,17 13:16 14:17 15:17 17:21 18:17 19:15 21:5,25 22:16	23:20 25:3,10 30:19 31:4 33:12 37:11 43:5 44:17 45:8,23 47:6 54:15 56:4 58:7 68:13 69:18 76:2 79:20 81:5 83:22 85:11 86:6 89:22 97:6 101:21 104:6 106:3 107:1 110:11 110:25 122:9 132:15 136:25 143:13 148:19 153:12 156:23 158:14 161:19 163:3 169:9,10 169:20 170:25 175:8,9 181:8,10 187:13 191:7 191:11 194:1 200:1 NP [1] 159:16 NSTAR [5] 132:22 133:16,18,25 134:4 number [15] 5:22 21:22 43:3,14 56:16 58:17 61:3 61:4 65:21,22 92:15 132:17 152:4,7 176:18 numbers [3] 39:18 43:16 62:18 numerical [3] 37:24 116:7 119:15
-O-				
o [1] 145:9 objecting [1] 83:6 objective [2] 158:25 163:25 objectively [2] 162:15 193:16 observation [2] 95:18 95:25 observe [2] 151:14 175:23 observed [2] 100:6 168:20 observer [1] 103:14 obtain [3] 6:11 8:16 36:20 obtained [2] 14:2 28:11 obtains [3] 25:25 35:21 36:22 obviously [7] 39:12 61:4 61:11 70:24 79:25 87:23 131:25 occur [1] 110:11 occurred [1] 109:2 off [5] 114:14 182:13 185:19 194:4 196:10 offer [2] 71:8,16 offering [1] 91:9 offices [1] 204:6 offset [2] 11:20 162:7 oil [1] 166:17 old [1] 173:23 once [3] 41:15 86:23 170:18 one [91] 1:23 11:2,20 16:7 16:16 18:14 19:16 31:25 33:3 34:25 35:16,18,21 35:21 36:14,16,17 50:21 52:11 56:23 59:20,24				

60:6 64:4,8,10,19 71:3 74:22 75:4,7,9 79:7 80:19,20 81:18 83:25 88:12 91:3 93:22 94:3 95:4 100:20 103:11 108:3 108:23 109:9 111:10 112:21 114:19,20 115:5 115:7 117:18 119:1,15 122:9,11 124:2 125:11 126:4,7 127:1 128:10 129:2,7 135:16 136:4 138:1,19 142:20 144:16 146:5,6 149:13 154:4,17 155:10 157:25 158:8 167:21,24 170:4 171:1,6 173:2,25 177:3 190:4,5 193:10 one-third [1] 37:25 ones [2] 5:4 51:24 Ontario [2] 4:22 196:4 onward [1] 82:7 operate [2] 113:17 134:23 operating [2] 107:20 141:7 operation [4] 24:13,14 182:6 184:6 operations [6] 7:7 21:24 34:21 64:13 135:1 152:3 opinion [19] 10:23 19:20 20:1 25:7 59:22 137:7 143:15 144:16 147:24 148:20 150:20 152:25 153:6,19 155:14 171:14 171:14 175:25 178:20 opportunity [6] 107:14 107:23 109:4 113:5 166:2 193:6 opposed [2] 59:22 68:15 opposite [1] 147:2 optimistic [9] 47:19 57:10 59:18,20 94:13,24 95:20 96:1,9 option [2] 164:24 165:4 orange [1] 194:21 order [4] 112:16 124:20 148:2 185:25 ordered [2] 109:11 111:6 ordinary [2] 184:19 196:10 origin [1] 2:14 otherwise [1] 47:17 ought [9] 16:15 59:21,24 60:8 61:22 75:7,9 96:22 119:2 outflows [1] 169:6 outlook [2] 137:5,7 output [4] 159:10 162:11 173:3,4 outside [2] 1:17 195:8 overall [6] 26:16 122:11 132:11 201:3,8,17 overstating [1] 100:13 own [1] 102:16	-P- p.m [9] 106:24 130:14 139:10,11 153:21 156:19 156:20 164:2 182:14 P.U [1] 131:13 P/TSX [1] 71:21 page [36] 1:13,14,25 3:17 14:6,7 16:20,21 28:25 52:1 67:7 68:15 81:5 83:23 84:4,8,10 94:4 97:13 104:21,22,23 121:8 136:4,15,24 137:21,21 140:5,11 146:25 175:8 182:21 187:13 190:12 196:18 pages [3] 45:13 46:2 51:6 paid [1] 98:23 pain [1] 109:7 painful [1] 108:20 painfully [3] 107:12 108:16 109:16 pains [1] 109:9 paragraph [5] 93:16,20 94:1,8,9 paraphrasing [1] 144:13 part [9] 33:3 45:20 46:6 46:21 51:9 91:20 103:22 111:10 146:6 participated [2] 95:5 132:16 particular [13] 24:20 51:5 102:8 112:22 122:24 136:1 160:4 164:12 166:13,13 169:9 185:23 196:21 particularly [3] 151:20 164:15 168:9 parties [1] 189:7 Partly [1] 146:17 party [1] 148:13 pass [1] 181:2 passage [4] 93:6 95:3 107:4 110:17 passed [1] 161:19 past [8] 46:7 60:19,24 98:25 123:20 138:2 197:22 198:3 pattern [1] 80:8 pause [2] 58:14,21 pay [5] 125:2 141:19,20 178:18 195:7 payers [1] 161:19 peaked [1] 80:5 pension [11] 127:18 169:9,13 178:15,18,21 179:13,14,15,19 180:7 pensions [2] 167:15 169:6 people [7] 2:25 122:12 141:5 170:19 176:18 178:10 192:7 per [6] 46:11 47:3,7 51:13	53:24 54:11 perceived [2] 107:17,21 percent [152] 1:16 8:5 8:10 14:1,3 16:14 18:19 18:25 19:2,2,12,13 22:3 23:21 24:2,4,5,8 26:1,3 26:8,18 27:12,12,17,18 27:19,22 28:5 29:13 33:15 39:20 48:10,23 53:22 56:11 57:15 58:3 58:12,19 62:4,5,16 63:12 63:14,23,24 65:2,8 69:22 70:10,12,14 71:1,2,5 76:5 78:19 80:7,15 85:9 85:11,16,20,21 86:17,17 87:16 89:12,15,17 99:19 99:20 100:1,1,3,4,7,8 105:6 106:13 111:18,20 128:11,11,20 129:18 130:2,2,22 131:18 152:5 162:20,20 163:8,10,15 163:17,17 164:4 165:10 165:11 166:23,25 167:6 167:7,8,10,23 168:1,6,6 168:15 171:5,7,10,13 175:2 178:7,8 179:4,5 179:25 180:19 182:9,12 184:8,10,11,11,12,13,16 185:4,4,5 186:4,19,21 186:23,25 187:24 188:18 192:21 193:25 194:2,2 195:21,25 196:2,9 202:3 percentage [4] 34:20 64:12 124:15 129:11 perceptions [1] 107:8 perfect [2] 127:12 130:17 performance [1] 178:22 perhaps [7] 49:5 78:24 116:20 117:3 126:12 139:1 168:18 period [72] 1:17 7:9,18 8:21 15:21 20:16 26:19 40:9 43:19 46:12 48:24 53:20 54:2 58:13 69:3 69:20 71:2,6 73:25 74:15 74:15,17,20,21,25 75:4 75:10,15,15,18,23 78:7 79:24 80:19 85:15,17,18 86:15 87:12 89:10,13,16 90:2,8,9,12,13,14 91:9 91:15 92:1,3,19 97:18 97:22 98:8 100:20,22 101:3,18,21,25 102:4,6 102:8,12 173:14,18 174:12,20 187:7 188:7 periods [10] 20:23 23:5 69:1 70:19 78:25 90:12 92:19 100:5 101:8,14 perpetual [3] 56:16 58:16 67:12 perpetuity [1] 55:25 Perry [2] 164:7 188:21 person [3] 56:9 178:14 199:15 perspective [10] 117:4 123:10 142:17 143:25 144:6 145:11 148:11 172:9,22 185:17 pessimistic [1] 57:11	Petroleum [2] 50:17 51:10 PhD [2] 4:8 103:14 philosophies [1] 9:19 philosophy [1] 173:24 phrase [2] 144:3 146:14 pick [4] 92:18 102:8 188:12 193:19 picked [1] 174:11 picks [1] 82:13 pipeline [1] 134:21 place [5] 38:20 161:16 176:16 196:19 202:5 Plains [6] 56:6,8,10 57:16 63:14,23 plan [1] 178:15 plans [3] 127:18 178:22 180:5 plus [8] 13:7,12 131:20 159:19 167:9,10 170:25 187:23 PNM [4] 135:4,11,16 138:3 pockets [1] 192:9 point [30] 1:23 24:6,9,12 24:20,23 25:5 26:1,7,17 32:17 36:11,15,20 37:5 58:11 62:6,17 80:14 99:25 106:19 114:2 130:6 134:5 141:11 144:12 146:2 155:22 161:22 177:18 pointed [3] 162:25 190:4 190:5 pointing [3] 98:4 122:22 192:19 points [26] 19:24 32:17 34:9 35:12 65:19 71:4 100:8 102:9 104:4,5 152:22 153:7 154:10 155:2,14 168:2 179:3 186:15 188:13,19,21 189:1 195:19 197:15 199:5,8 policy [8] 162:5 184:2 184:21 192:1 194:19 195:17,20 196:11 poor [3] 143:22 144:1 146:7 Poor's [1] 136:17 Poors [7] 68:18 69:2,25 76:9 98:22 135:24 176:13 Poors/TSX [1] 78:6 popular [1] 118:20 populated [1] 54:18 portfolio [4] 13:14 126:6 172:1,16 portfolios [1] 127:20 portion [1] 142:11 position [2] 35:25 97:1 Positive [1] 183:23 possible [2] 122:9,12 Possibly [1] 79:3 Post [17] 13:23 14:9	29:17 30:8 33:12 43:10 43:25 67:5,24 68:1,4,13 71:9 72:1,4,21 84:17 potential [2] 94:11 95:1 power [47] 2:2 6:12,21 7:15,16 19:11 70:6 75:20 75:23 91:12 92:6 93:1 107:4 112:8,12 121:4 129:21 130:8,11 138:7 138:12 149:2 157:5 158:21 159:14 160:25 161:6,9,11,15,16,21 162:12 163:7,25 164:25 165:9,13 172:25 173:4 184:16 188:20 194:13 201:4,18,25 204:4 Power's [15] 6:5,7 17:22 18:3,18,21 19:8 27:2 28:6 110:15,19,24 123:18 162:19 163:22 practically [2] 108:4 191:2 practice [6] 41:14 42:10 60:14,17 176:4,4 precipitated [1] 174:8 precise [1] 9:8 precisely [1] 12:11 predictions [1] 186:6 predominantly [1] 38:21 preferred [15] 163:18 164:8,11,16,21 165:1,2 165:4,13 194:24,25 195:3 195:9,14 202:4 preferreds [2] 164:5,18 premise [2] 13:5 36:1 premium [125] 1:15 11:7 12:24 13:4,7,13,17,23 13:23 14:10,10 15:11,13 15:14,15,25 16:2,12,13 17:12,13 24:3,10,12,24 24:25 25:5,6 27:15,18 28:3,10 29:17 30:8 32:3 32:4,14,16,18,20 35:6 39:17,23,24 40:3,12,15 40:17,21,22 43:10,25 44:2 67:5,24 68:1,4,13 69:24 70:12,15 71:1,5,9 71:17,19 72:11,20,21 73:16,21 75:6 85:10,19 86:16,25 87:1,6,17 89:18 90:4,16,21 91:1,11 92:16 97:10,16,19,25 98:17 99:11,21,21,22 100:2,10 100:16 101:2,7,9,10,14 101:18,19 102:5,14,18 102:21 103:19,24 104:6 155:10 165:22,23 168:4 168:14 169:17,23 170:13 171:5,9,13 177:18 199:11 premiums [22] 11:10 15:23 18:8,9 40:6 70:13 78:5 88:11,23 91:8 92:9 98:7,9,11 101:21 103:1 168:17 179:23 193:16 197:18,19,24 prepared [9] 1:7 3:6 68:7 79:5 83:12 84:14 84:16 115:25 157:3
--	--	---	---	---

present [9] 14:22 39:6 41:11 90:13 96:17 107:5 140:12 150:17 176:17 presentation [2] 2:1 79:23 presented [2] 43:8 82:23 president [1] 4:2 pretty [3] 20:25 80:7 109:24 previous [8] 67:25 71:18 73:5 93:4 100:3 132:16 140:10 189:17 previously [1] 25:8 price [9] 13:1 58:25 59:1 59:25 60:8 94:14 95:20 96:2,10 prices [22] 59:6,13,16,19 60:5,7,21 61:20,23 66:18 77:13,24 95:11 96:17,18 96:20 155:6,9 166:17,18 173:17 183:8 pricing [6] 11:8 12:25 13:10 14:18 27:14 194:7 primarily [10] 8:8 22:1 22:2 39:19 137:8,9 141:10 142:5 144:25 178:21 primary [1] 7:10 principal [1] 141:20 principle [1] 194:6 principles [1] 9:21 print [2] 191:10,10 problem [6] 129:7 130:19 164:25 182:3 188:9 200:12 problems [9] 74:24 75:3 128:22 159:17 161:4 180:7 190:24 192:10 193:10 proceed [1] 175:9 proceeding [13] 30:4 38:14 48:22 49:20 50:19 53:17 54:19 57:24 111:20 146:18 157:4 158:15 201:1 proceedings [1] 37:15 process [5] 33:3 45:10 66:10,11,16 produce [1] 34:8 produced [5] 33:16 34:9 35:13 62:4 92:12 Producers [2] 50:17 51:10 produces [3] 33:14 35:11 60:25 producing [1] 39:10 product [1] 13:12 professional [1] 91:6 professor [5] 3:20 4:10 4:10 103:15 157:13 professors [3] 170:11 170:15,21 prominent [1] 193:4 pronounced [2] 3:22 133:1	proportion [3] 7:13 9:16 9:17 proposition [4] 35:3 67:18 94:18 118:12 protect [1] 159:5 protected [1] 201:5 protection [9] 20:5 159:5,11 162:10 169:1,8 181:10 201:12,16 protections [2] 21:7 22:10 protects [1] 201:16 provide [20] 1:15 2:1 20:4 45:11,15 46:7,10 51:11 60:13 105:18,21 107:22 123:4 128:6 137:12 156:24 157:9 159:8 179:16 186:10 provided [20] 28:7 48:18 48:19 54:21 56:10 57:24 67:11 79:20 83:18,23 106:8 107:3 108:5 111:4 113:16 114:1 129:17 131:17 162:22 187:15 providers [2] 176:15,19 provides [7] 4:3 64:8 92:23,25 125:18 137:20 148:25 providing [2] 104:9 147:23 proxies [2] 47:4 72:5 proxy [6] 13:24 46:17,24 47:8 131:11 148:23 prudent [1] 163:21 PUB-CA-36 [1] 153:12 PUB-NP-91 [2] 153:17 153:18 public [2] 23:3 204:7 publication [1] 135:23 publicly [6] 8:12,13 23:16 34:18 48:2 124:13 published [2] 4:11 17:9 pull [1] 14:6 purchase [2] 173:1,4 purchasing [1] 184:16 pure [2] 92:5,8 purple [1] 194:23 purpose [4] 10:18 83:9 105:16 138:9 purposes [2] 63:15 86:9 push [1] 191:25 pushing [1] 138:22 put [22] 14:19 17:16 43:2 45:24 48:6,18 53:12 54:16 57:23 61:5 75:14 79:8 90:21,24 100:19 135:24 161:16 178:9 188:10 192:8 195:16 196:7 puts [2] 161:10 202:5 putting [3] 55:10 58:15 88:6 puzzles [1] 149:13	-Q- Q.C [82] 2:7,11 3:4,12 3:16 4:1,7,16 5:2,10,15 5:19 6:13,23 7:20 8:22 10:2,9,24 12:2,16 13:15 14:5,16 15:3 16:18 17:3 17:14,20 18:16 19:5,14 20:8 21:4 22:15 23:19 24:18 25:9,18 26:20 27:4 27:23 28:13,18 44:18 45:17 50:2 85:25 139:17 139:21 140:2,9,18 141:22 142:2,9 143:1,7,12,19 144:9 146:4,13 147:20 148:10,18 149:12,22 150:19 151:5,12 152:9 152:18 153:3,11,15,24 155:13 156:1,6 202:19 203:1 qualifications [3] 3:19 157:10,24 qualify [1] 165:25 quality [2] 107:11 137:7 quantitative [1] 191:7 quantities [1] 11:9 quarter [2] 98:23,25 questions [4] 99:5 139:22 153:4 156:3 quibble [1] 38:7 quick [1] 3:18 quite [9] 9:22 21:22 28:4 53:15 122:4 151:19 152:1 152:6 159:16 quiz [1] 135:12 quote [1] 164:10 quoting [1] 126:22 -R- raised [2] 155:16 191:21 raises [2] 19:17 71:24 raising [1] 58:10 range [23] 10:17,22 11:16 14:2,13 16:16 17:1,8,10 24:2,3,5 36:23 39:9,11 44:6 63:17 111:18,22 138:17 152:15 161:22 192:21 rank [4] 126:11,13,19 137:6 ranked [1] 157:19 ranking [8] 125:11,17 125:18,23 137:12,20 157:19 165:24 ranks [5] 126:4,7 127:1 137:2 138:1 rapid [1] 152:1 rapidly [1] 152:6 rate [97] 9:20 13:6,12 21:20 22:6 24:1 25:2,8 26:14 40:15,24 47:16 48:9,21,24 51:16,19 53:14,21,22 54:13,20 58:2,20 59:1,4,13,22 60:8,25 61:15,16 63:12	65:3,7 66:3,4,6,7,8,12 66:13,20,24 67:3 69:15 73:17,24 74:12 75:6,7,9 76:16 84:22 97:23 100:25 101:1 104:2 107:19,24 109:5 111:25 112:3 114:6 117:25 118:9 141:21 145:12,13 150:16 153:2 154:7 159:2 161:19 162:1 164:23 167:1,3,6,14,20 178:4,24,25 179:6,8 180:20 184:17,18,20 192:18 194:3 195:10 196:14 197:16 202:2 204:4 rated [3] 137:2 148:7 187:6 ratepayers [1] 201:10 rates [84] 8:16 11:10 24:17 25:1 26:10 32:16 32:19,21 40:7,8,11,16 42:10 51:12 56:25 57:18 58:24 59:17,18 60:2,4 60:20 61:10,19,22 64:6 66:17,19 67:20 68:7 76:24 77:8,9,23 78:25 85:17 90:11 91:18,21 95:14 98:9,11 100:22 101:3,22 102:1,14,18,21 103:1 104:6,7 107:14 108:18 111:13,14,16,16 112:24 113:1 123:7 145:5 146:23 166:16 167:16,17 167:22,23,25 179:11 180:3 192:1,5,6,24 193:3 193:14,17,22,24 195:25 200:21 201:12 202:8 rather [7] 11:3 18:11 100:20 115:10 131:3 147:2 187:21 rating [23] 10:14,16 45:7 116:18,20,24 117:3,19 119:20 120:25 121:19,24 122:22 123:8 124:25 137:5,6 138:14,16 145:6 145:21 147:3,7 ratings [40] 10:11,19,22 22:8,9,11,14 115:9,12 117:6,12 120:14 121:16 121:21 122:3,10,23 123:8 127:12,23 128:15 131:19 131:21 142:15 143:14,21 143:25 144:5,14,17,22 145:10,16 146:7,10,20 147:13,15,21 148:6 ratio [21] 16:12 18:19,22 18:23,24 19:4,13 27:13 41:22,23 66:8 141:11 147:6,9 162:7,19 163:2 163:9,22 164:1 202:1 ratios [5] 9:25 10:1 147:12 163:20 201:13 RBC [1] 192:18 reach [1] 124:3 read [7] 30:3 48:14,16 62:1,10 94:8 137:11 ready [1] 103:21 real [1] 149:3 realistic [1] 180:3	really [21] 8:1,6 9:5,6 10:20 16:8 29:18 66:2 71:22,23 79:23 85:17 86:1 102:13 117:7 120:23 131:2 145:6,9 154:11 171:18 reason [11] 59:19 110:22 135:21 147:4,14 163:8 163:25 174:5,25 192:5 202:6 reasonable [23] 8:16 19:4 28:4 57:12,21 59:22 59:25 63:16 64:13 67:2 72:5 92:23,25 107:16,22 108:25 131:10,11 189:23 190:3 196:3 199:15 202:7 reasonably [3] 64:15 163:21 173:6 reasoning [1] 94:22 reasons [7] 8:1 17:15 28:2 74:1 154:4 192:17 193:11 receive [1] 13:3 recent [6] 2:1 20:23 70:24 150:7 152:16,17 recently [5] 43:5 106:2 161:13 169:11 199:22 RECESS [1] 89:6 recession [3] 162:24 183:18 200:17 recognition [1] 155:23 recognize [3] 200:15 201:24 202:8 recognizes [2] 42:2 155:6 recognizing [1] 42:8 recommend [9] 15:1 19:11 64:20 126:24 163:13 164:12,16 185:8 202:3 recommendation [13] 19:7 26:7 27:22 58:15 111:19 132:8 148:21 150:5 153:7 163:2 164:9 200:25 201:3 recommended [14] 6:11 18:19,23 23:20 27:11 28:12 105:4 106:13 111:25 180:1 186:18,19 186:22 187:8 recommending [4] 162:18 163:14,16 164:4 recommends [1] 196:6 record [8] 47:13 53:18 111:24 169:7 175:6 182:13 187:12 196:16 records [1] 108:9 recover [3] 107:15 108:19 192:23 recovered [2] 182:2 184:3 redeem [2] 165:4,15 redeemable [3] 164:21 164:23 165:1 reduce [2] 11:18 24:16 reduced [3] 151:22
---	--	---	--	--

162:20 181:4 refer [2] 135:11 142:3 reference [4] 1:12 51:4 153:17 164:17 referenced [1] 46:1 references [1] 107:2 referred [1] 93:10 referring [6] 49:14 93:6 108:21 175:7 187:12 190:11 reflect [13] 24:10,13 35:22 59:25 96:19,21 115:9 145:9 154:11,16 169:24 181:13,14 reflected [2] 60:4 91:20 reflects [8] 35:20 138:18 169:7,19 171:13 194:7 196:9,11 regard [18] 16:10 19:24 36:11 91:7 151:19 162:12 163:18,21 177:15 181:21 182:7 185:5 188:21 194:2 195:21,24 196:2 199:20 regarded [3] 189:23 198:3,4 regarding [2] 13:19 67:18 Regie [11] 186:16 187:9 189:5,7,9,16,18,25 190:2 190:4 196:4 regression [3] 40:19 102:10,10 regulate [2] 167:18 200:10 regulated [28] 7:6,14 8:5 8:8,11 9:18 22:1,4 34:21 45:7 64:12 76:5 124:15 128:13 130:22 131:4,19 131:22 136:18 137:3 152:5 162:13 163:11,24 169:2 181:9 186:12 201:12 regulating [1] 201:8 regulation [9] 4:19 21:17 107:6,11 128:12 150:13 200:4,5 201:5 regulator [4] 147:5,22 179:17 200:3 regulators [19] 20:4,5 40:5 107:12,22 108:17 108:23,24 109:17 111:15 145:13 150:1,21 151:6 162:2 177:9 187:1 190:8 197:6 regulatory [43] 5:11 20:4 21:6,24 22:10 37:15 38:19,24 39:7 41:14 42:9 66:9,11 107:18 108:1 109:20 110:15,20 111:2 111:7 112:11,17,25 113:9 113:20 114:3,6,9,10,13 114:13 118:6 122:14 123:16 145:11 146:18 149:6 150:7,10 159:4,11 162:10 201:21 rejected [1] 189:25 relate [2] 34:12 145:17	related [4] 5:16 40:6 141:10 161:9 relates [2] 140:3 153:4 relation [5] 19:8 45:12 65:16 69:3 93:4 relationship [9] 40:14 40:18 98:8 100:21,25 102:11,20,22,25 relative [14] 21:6 22:17 88:13,18 103:17 124:4 165:24 168:10 177:22 179:10 180:13 195:14 197:25 199:12 relatively [4] 21:6 114:7 114:11 197:2 relevant [3] 47:17 130:6 200:14 reliable [5] 19:18 64:8 64:14,21 176:14 relied [2] 131:10 148:25 relies [2] 17:21 18:4 reluctant [2] 147:14 151:2 rely [1] 9:13 remains [1] 94:25 remarkable [2] 78:10 183:9 remember [4] 50:1 104:14 126:23 134:6 removed [6] 1:22 165:8 169:9,16,21 192:25 renegotiate [1] 192:8 renegotiation [1] 1:20 replace [1] 163:16 replaced [2] 163:17 202:4 reply [4] 49:25 110:18 121:3 129:17 report [26] 3:6,18 6:14 16:19 19:15 21:5 25:10 29:1 45:13 51:6 62:1,7,9 62:14 81:8 84:4 86:6 92:15 97:14 104:22 107:5 135:22 136:17 157:24 161:8 164:19 reported [5] 36:25 69:6 69:16 92:1 132:1 reports [2] 6:2 25:14 represent [1] 72:10 represented [1] 152:4 request [3] 45:9 50:15 178:2 requests [2] 46:13 158:18 require [2] 11:8 139:3 required [22] 10:21 13:5 13:7,11 40:22 63:18 72:11 92:9 93:1 94:17 96:5 97:16,19 103:24 109:5 113:3,6 142:22,24 145:19 146:21 147:3 requires [4] 46:18,25 58:23,25 research [3] 3:20 4:10 176:25	Reserve [6] 184:22 191:4 191:12,19 194:8,15 resolve [1] 94:23 Resources [4] 52:9 132:22 135:4 138:3 respect [5] 1:19 14:9 90:20 153:19,20 respond [2] 59:6 146:1 responded [2] 152:19 162:3 respondents [3] 171:1 171:3,11 response [3] 114:1 143:20 177:13 rest [3] 137:11 156:15 177:7 restrict [1] 127:21 restriction [2] 169:11 169:12 restrictions [4] 169:4,5 169:14,20 result [37] 14:2,14 25:25 26:6,6,13,16,22,25 27:16 27:17,19 28:4 33:14 34:8 35:10,12 44:4 57:5,15 57:17 61:14 63:23 64:4 64:8,10 66:11,15 68:4 98:6 100:20,21 102:16 103:9 107:17 141:4 188:24 resulting [3] 94:15 96:3 96:11 results [61] 5:24 6:10 11:20,21 14:4,13 15:2 24:5,7,9,24 25:4,14,19 25:22,23 27:1,16,21 28:3 28:10,11 29:2 31:16,22 35:1,21 36:22,24,25 39:10,18,18,23,24 40:4 43:7,15,20 44:12,21,25 60:19,24,25 64:3,18 67:6 68:14 72:1 74:22 92:12 100:14,15,16 103:10 104:5 138:19 148:24 170:9 189:22 RESUME [4] 89:7 139:11 156:20 182:14 retention [1] 66:8 retractable [5] 164:4,8 164:10,18 165:2 return [146] 8:19 9:20 10:21 13:5,11 19:12 23:20 26:10,15 40:7,8 42:10 63:18 66:7,8 69:20 69:22 70:10 73:8,25 76:17 77:7 81:18,19,20 81:21 82:9,10,12 84:17 84:20,20,23,24,25 85:2 85:8,15 86:11 87:14,15 89:14 93:1 97:21 99:19 100:6,11,25 101:16,17 105:5 107:16,19,25 108:24 109:5 110:24 111:5,13,14,16,16,22,24 112:1,1,3,8,18,19,24 113:1,4,6 114:15 116:9 123:7 130:7 141:3,7,8 141:21 144:21 145:5,9	145:12,13,18,19 146:23 147:3,5,8,18 148:4 150:17 151:8 153:2 154:7 154:18 157:4 159:2 160:16,16,17,19,21 161:4 161:5 165:18 166:16,22 167:2,3,6,14,17,17,20 167:22,23,25 169:19 177:19 178:4,6,24 179:1 179:1,4,7,8,11,21 180:4 180:12,20 190:7 193:14 194:5 196:10,14 197:1 197:16 201:12 202:8 returns [69] 15:22 20:14 20:14,17,24,25 23:5,6 23:11,12,15 26:23 30:14 39:9,20 40:23 68:25 72:22,22,23 73:10,10 74:4,13,14,19 77:17,25 80:20,20 81:1 82:9 85:9 85:10,19,19 86:22,25 89:12 90:22 91:18,19,21 91:24 94:17 96:6 110:24 113:11 114:25 115:3 124:7 142:22,24 146:21 147:12 149:16,19 150:4 150:6,15 151:15 152:11 166:5,8,11 168:11,13 177:16 181:12 revenue [3] 21:10 151:25 152:7 revenues [1] 128:24 review [2] 3:18 108:1 revised [4] 84:14,16 86:9 89:14 revolving [1] 1:20 RFI [2] 129:17 153:12 RFIs [1] 158:18 ridiculous [1] 66:12 right [49] 25:3 30:15,20 33:8 35:6,10 39:2 45:23 46:4 50:14 52:14,23 54:8 56:4,11 68:20 76:2 79:16 79:20 81:16 82:16,23 85:3 86:10,19 91:6 97:9 98:1 104:6 106:18 110:11 110:25 115:19 119:23 122:13,19 124:23 125:5 132:2 134:6 135:19 136:25 150:5,24 151:3,4 169:2 191:11 201:23 rise [1] 99:20 risk [309] 1:15 5:23 6:9 9:7,9,13,13,23 10:4,7,7 11:2,7,10 12:9,10,13,15 12:24 13:4,7,9,11,12,13 13:16,18,19,23,23 14:9 14:10 15:11,13,14,15,22 15:23,25 16:2,12,13 17:11,13 18:8,9 20:18 22:23 23:2 24:1,3,12,24 24:25 25:5,6 27:15,18 28:3,10 29:17 30:8 32:2 32:4,14,15,18,20 34:16 35:6,22 36:6,9,19 37:9 39:17,23,24 40:3,6,12 40:15,17,21,22 43:10,25 44:2 60:22 61:1 64:22 67:5,24 68:1,4,13 69:24 70:11,13,14 71:1,5,9,17	71:18 72:11,20,21 73:16 73:16,21,22,24 74:2,11 75:6,7,9 78:5 81:2 85:10 85:19 86:16,25 87:1,6 87:17 88:11,13,18,23 90:4,15,21 91:1,7,11 92:9,16 97:10,16,19,25 98:7,9,10,17 99:11,20 99:21,22 100:2,10,15 101:2,7,8,10,14,17,19 101:21 102:5,14,18,21 102:25 103:19,24,24 104:6 107:9,18 108:1 110:16,20 111:2,7 112:11 112:17 113:3 114:10,14 114:17 115:4,7,10,13,23 116:2,6,7,13,19,21,24 117:18,22 118:13 119:2 119:4 120:24 121:13,13 122:11,21,21 124:4,6,6 126:14,16,19 127:13 131:3 132:5 137:10 138:10,18 140:4,13,15 140:23 141:1,2,6,9 142:4 142:13,20,21 143:22 144:23 145:2,3 146:8 147:16 149:5,5,6,7,24 151:20 154:10,14 158:21 159:22 160:1,7 161:11 161:25 162:8,16 165:22 165:23,24 168:4,14,16 169:17,23 170:13 171:5 171:9,13,17,23 172:8,17 173:16,19 174:3,17 175:1 177:4,18,22 179:10,23 180:13,15,18,21,22 181:4 181:8,15 185:16 186:6 193:13,15 194:4,11 196:10 197:3,18,19,24 198:1,3,5,8,11,14,20,24 199:11,12 201:8 riskier [6] 87:25 161:15 168:21 180:16 198:11 199:18 riskiness [2] 20:10 22:17 risks [12] 8:25 9:2 75:20 114:19,20 115:18 118:24 119:9,22 137:8 166:20 198:23 risky [18] 15:18 18:11 19:20 20:2,7 73:25 77:4 81:3 114:23 116:22 117:2 117:8,11 119:16 124:10 127:16 151:18 152:10 ROE [21] 26:18 27:22 28:12 52:3 114:5 149:1 159:9,9,17,20,25 160:10 160:18 161:22 187:18,22 188:18 189:1,5,25 194:14 ROEs [8] 114:8,11 150:2 150:21 188:3 190:2 201:13 202:9 roundabout [2] 42:13 193:24 rover [1] 200:25 Royal [4] 176:7 177:24 184:21 192:13 run [27] 78:10 158:24,24 158:25 159:3,6 160:11 160:20 161:4 165:8
---	---	--	---	---

166:22 167:16,23 169:18 169:22 174:25 178:4,6 178:22,25 179:4,11,21 180:3,11 181:11 197:1 running [1] 16:21	161:3 162:15 163:7,24 165:3,6,13 170:3 171:3 172:18 173:5,8 174:24 177:10 181:6 182:16 183:1,12,21 188:10 193:24 195:13 201:21 seeing [3] 62:6 87:14 100:2 seeking [1] 73:21 segment [2] 129:5,11 segments [1] 129:8 select [1] 98:21 selection [3] 124:17 126:3 144:18 sell [2] 60:3 170:18 selling [2] 185:19,25 sense [7] 59:7 95:10 103:17 123:21 147:7 177:5 200:23 sensitive [1] 91:18 separate [2] 177:15 180:10 September [4] 1:17 99:10 135:22 188:15 serious [1] 176:12 seriously [1] 62:10 service [6] 8:6,11 9:19 107:15 108:19 131:19 services [2] 4:4 7:14 set [8] 29:1 44:11 76:7 99:11 107:14 108:18 149:1 187:18 sets [2] 83:23 98:18 settled [1] 189:6 Settlements [1] 199:25 seven [3] 26:8 137:21 193:5 several [13] 6:8,9 7:12 7:25 12:6,8,11 36:17 92:7 103:10 146:17 154:22 166:1 severe [1] 174:12 severely [1] 160:22 share [8] 46:11 47:3,7 51:13 53:25 54:11 95:18 194:24 shares [14] 163:18 164:8 164:11,16,21 165:1,2,5 165:14 194:25 195:4,9 195:14 202:4 short [8] 55:23 61:15 72:17 156:14 158:24,25 159:6 192:2 short-term [1] 183:5 shorter [5] 69:2 71:6 74:25 75:4,15 show [6] 64:25 76:4 99:24 115:3 129:5 179:2 showed [2] 48:20 57:25 showing [1] 99:9 shown [4] 96:19 116:10 131:10 142:22 shows [7] 14:13 78:4 84:3 98:10 101:1 102:11	183:2 significant [14] 20:22 23:13 34:20 35:18 64:11 124:15 129:16 130:9 159:17 162:15 166:17 174:7 181:1 194:10 significantly [13] 14:23 16:6 25:23 26:9,14 28:5 90:15 111:22 112:2 168:16 175:3 178:12 193:3 similar [28] 9:14,15,19 23:1,10 44:5 65:24 73:12 79:14 83:17 91:21 97:1 111:19,25 115:18,23 121:12 122:5 149:8 159:24 161:6 162:13 168:3 183:2 186:22 189:22 190:2,7 similarly [4] 62:18 67:11 73:11 172:5 simply [13] 11:3 47:11 54:19 160:9,25 164:17 167:1 176:17 185:18 187:20,23,25 192:5 single [4] 11:14 26:13 64:2 178:14 sister [1] 163:9 sitting [1] 134:5 situation [1] 100:17 six [4] 24:4 53:16 57:25 198:20 size [3] 142:14,19 143:3 skimmed [1] 62:9 sky [1] 79:1 slide [1] 192:13 slight [1] 20:20 slightly [3] 23:7 122:2 122:25 slope [1] 80:9 slowly [1] 163:14 small [4] 11:14 69:4 82:15 142:23 smaller [6] 9:17 10:16 70:4,8,9 138:15 SNL [2] 114:8,12 sold [2] 172:22 173:3 solely [1] 29:8 solved [1] 193:10 sometimes [5] 40:2,5 59:12 129:18 173:8 son [1] 176:11 sooner [1] 170:18 sorry [15] 16:20 34:4 49:17 62:24 65:3 67:23 68:16 82:2 95:23 104:19 153:16 163:6 175:19,19 199:6 sort [6] 99:3 132:21 134:18 161:24 169:22 189:22 sorts [2] 67:19 183:9 sought [1] 73:15 sound [1] 204:9 source [1] 81:10	sources [1] 48:3 sovereign [1] 194:11 speak [1] 19:21 speaking [2] 150:22 196:17 specific [2] 19:6 162:5 specifically [6] 26:11 88:5 162:6 186:14 191:24 192:4 speculative [1] 137:10 spike [2] 183:1,2 sponsored [1] 104:23 spot [1] 109:23 spread [13] 36:11,20,25 37:5 62:17 186:5 187:4 187:6,18,19 188:8,11 194:21 spreads [12] 24:11 183:5 183:6 186:10,13,14,15 186:21,25 187:24 188:16 196:3 St [2] 204:7,10 stability [2] 145:24 199:24 stabilization [7] 21:10 21:20 22:6 118:1,9 151:25 152:8 stable [2] 173:6 199:22 stage [11] 55:18 60:12,19 61:6,14 62:5,16,24 65:18 65:21 195:23 stand [2] 80:15 156:23 standard [17] 20:16 23:8 23:10 69:2,24 76:8 78:5 98:22 135:24 136:17 145:14,18 148:4 172:7 176:3,4,13 standards [2] 68:17 148:4 standpoint [3] 120:24 122:19 141:12 stands [2] 54:7,10 start [7] 6:3 9:6 166:3,8 179:6,7 197:16 started [7] 67:23 117:16 140:20 167:13 170:11 183:17 190:23 starting [1] 202:16 starts [1] 140:5 state [3] 46:18 107:8 183:20 statement [2] 88:16 108:11 states [50] 5:4,7,7 21:8,9 21:18 22:20 29:8 30:25 31:17 33:8,17 36:2 37:14 37:20 38:18 43:6 44:9 45:12 46:1 58:20 65:20 65:23 94:9 103:16 109:19 110:2 113:10,21 114:4 115:17 121:17 122:16 126:22 135:2 137:3,19 168:7 170:3 179:15 180:9 190:21 191:22 192:6 196:20 197:13,25 200:7 200:11 202:10	statistical [5] 40:14,18 59:7 98:10 102:22 statistically [3] 20:21 23:12 102:20 stature [1] 180:21 status [2] 173:19 174:17 step [2] 12:5 56:23 stick [1] 109:18 still [13] 89:9 94:16 96:4 108:9 113:2 153:1 160:13 169:13 172:21 173:2 175:12 183:14 188:17 stimulus [1] 192:25 stock [28] 13:1,4 59:6,13 59:16,23,24 60:2,4,6,21 61:20,22 66:18 68:25 69:20,21 70:10 73:7 78:6 87:14 89:18 95:11 155:6 167:4 173:16 183:8 194:24 stockholder [1] 167:11 stockholders [1] 115:11 stocks [8] 13:9 15:23 91:19 97:17 126:3 172:14 172:15 174:15 stop [2] 56:17 192:9 stopped [1] 185:24 straight [3] 32:23 44:24 171:19 strategic [1] 4:4 Strategy [1] 4:3 stress [11] 183:2,4,8,10 183:14,22,23 185:22 188:1,7,15 strikes [2] 47:10 71:3 strongest [2] 136:18 137:4 strongly [2] 107:10 115:22 structure [15] 41:18,19 41:19,21 42:1,8 120:7 141:4 142:5 143:3 154:11 154:20 155:5,20 165:10 structured [1] 157:15 structures [2] 9:16 115:6 studied [1] 91:24 studies [5] 18:6 47:2 59:4 97:20 98:17 study [4] 21:13 97:18,22 118:2 sub [1] 92:18 sub-sectors [1] 166:14 subject [8] 57:6 62:13 65:5,9 82:21 83:12 86:2 137:18 subjected [2] 62:19,24 subjective [1] 159:3 subsequent [1] 165:14 substance [1] 158:11 substitutes [1] 160:25 subtract [3] 73:6,10 168:2 subtracting [1] 72:22
--	--	--	--	---

successfully [1] 94:19 such [8] 11:9 22:24 73:22 94:20 95:14 112:23 127:19 142:13 suggest [5] 102:12 118:23 126:2 154:8 176:24 suggested [6] 22:11 28:2 34:15 64:5 112:21 115:1 suggesting [6] 18:10 25:6 37:7 71:25 101:9 112:9 suggestion [1] 47:21 suggests [3] 16:3 41:15 59:15 summarize [2] 14:8 19:6 summary [6] 29:2 44:11 44:20 45:2,5 102:15 summer [4] 171:6 193:20,25 194:20 supply [1] 160:3 support [3] 114:9,13 118:6 supportive [5] 113:9,20 114:3 122:15 123:17 suppose [2] 56:8 77:6 supposed [2] 63:20 81:22 surplus [1] 200:16 surprise [3] 179:18,19 191:5 surprised [5] 110:13 120:12,15 122:1,7 survey [7] 170:8,11,17 170:20,25 171:4,11 survive [2] 185:21 186:1 Susan [1] 121:23 sustainable [11] 59:13 65:13,17,19,22 66:3,4,6 66:16,19,23 sustained [1] 61:5 switch [1] 18:17 Switzerland [1] 200:3 sworn [3] 2:6,10 157:1 sync [1] 59:17 system [8] 163:5 174:10 183:5,10,15 185:22 188:8 191:18 -T- table [22] 1:9 14:7,8 29:1 33:14 51:11,21 67:6 68:16 69:18 83:18 84:3 84:6,8,15,16 85:1,20 86:7,9 89:14 146:25 takes [2] 27:6 167:14 taking [4] 68:17,24 92:22 143:23 tapered [1] 55:17 tapering [2] 61:7,12 taught [1] 4:12 tax [5] 184:9 195:2,3,6,7	taxable [2] 184:12,14 taxes [3] 141:8 169:14 169:15 TD [4] 177:23 178:5,19 179:3 tech [1] 172:15 TECHNICAL [1] 182:12 techniques [1] 177:1 technologies [1] 9:14 ten [10] 6:21 42:24 137:21 139:5 157:19 159:7,18 166:16 168:10 172:24 tend [9] 9:24 42:4 98:11 162:11 166:11 167:21 168:23 172:3 175:21 tended [2] 150:24 174:22 tends [3] 25:1 40:17 101:2 tension [1] 190:25 Terasen [7] 104:10,17 104:19,24 105:5,13 106:3 term [23] 55:23 61:16 69:15 78:8,18 79:6,14 81:9,20 82:8 97:23 164:14 172:25 181:17,23 182:7 192:20 194:16,18 195:14,17 197:12 199:10 terms [48] 10:21 21:1 23:14 29:19 31:4 33:12 36:6 38:19 44:24 55:9 58:12,15 65:25 67:8 69:4 70:8,9 71:1,5 76:14 78:10 82:12 90:3 92:14 108:15 109:16 123:17 124:18 129:20 149:24 154:12,14 159:19 160:24 161:4,5,22 166:5 169:4 169:6,14 170:12 171:16 188:25 189:4 191:23 193:15,16 terribly [1] 82:2 test [16] 27:7 34:10 44:4 44:25 90:21 94:16 96:4 128:20 132:1 159:12 180:25 181:2,3 188:13 189:12,13 tested [1] 94:19 testified [4] 30:4 50:20 93:12 106:2 testifying [2] 53:6 104:15 testimonies [1] 41:6 testimony [42] 3:9 4:20 6:1,2 14:23 17:21 28:15 37:20,23 38:3 42:14 43:5 44:10,20,23 60:13 76:4 104:10,24 105:19,21 106:8 107:2 111:4 117:24 123:5 150:14,18 152:15 157:3 158:6 159:23 162:22 168:19 169:25 177:23 179:16 181:6 182:21 187:13 190:11 196:18 tests [3] 35:10 91:3 94:19 Texas [1] 113:19	textbooks [1] 154:13 Thank [15] 2:8,12 3:5 3:17 28:19 44:17 49:14 84:3 106:1 121:11 139:9 156:2,10,12 202:12 themselves [2] 127:12 144:23 theory [2] 41:14,15 there'll [1] 160:13 therefore [1] 94:25 they've [5] 6:3 133:22 171:3 172:22 181:12 thinking [1] 67:24 third [5] 20:6 31:10 38:10 145:17 148:13 Thirdly [1] 197:25 thought [6] 67:25 87:7 101:5 111:4 119:8,13 thousands [1] 170:25 threats [1] 160:24 three [42] 7:12 12:22 16:8 24:1 27:10,13,16,21 31:5 31:6 33:16 35:1 55:18 60:12,19 61:6,13 62:5 62:16,24 65:18,21 94:19 111:17 125:12,17,24 126:5,8,11,14,20 127:1 149:7 162:22 163:3 177:25 178:7,12 186:8 197:11 199:21 through [22] 5:4 16:21 26:12 39:24 40:3,19 54:15 58:7 62:9 123:21 129:13 143:24 155:1 161:19 167:3 171:6 173:20 175:23 178:16 185:13 189:6 200:19 throughout [3] 80:19 160:4 174:11 throughs [1] 181:3 timely [2] 107:15 108:19 times [10] 42:3 60:18,23 60:23 74:3 107:13 108:18 109:3 150:7 157:20 today [6] 1:6 25:6 80:14 156:16 202:23 203:2 together [3] 61:21 70:13 149:7 too [7] 25:4 35:14 150:2 170:4 179:18,20,23 took [3] 126:11,13 198:6 top [2] 157:19 184:9 topic [1] 148:19 topics [2] 5:22 139:23 Toronto [3] 157:14,17 194:23 total [8] 5:6 36:6 115:23 116:9 119:2 122:21 131:3 149:7 totally [1] 147:21 touched [1] 63:13 towards [4] 104:22 177:2 177:3,5 town [1] 2:22 TQM [1] 154:22	track [1] 53:18 trade [1] 196:10 traded [8] 8:13,14 23:3 23:16 34:19 124:14 129:8 130:1 trading [2] 185:18 194:4 traditionally [1] 169:3 TransAlta [2] 172:20 172:20 TransCanada [3] 159:23,24 160:22 transcribed [1] 204:8 transcript [7] 1:12,14 1:25 30:3 48:14,16 204:3 transmission [3] 118:13 119:9 172:23 transmit [1] 9:14 transpired [1] 90:1 treasury [2] 1:16 197:14 tree [1] 173:24 trend [1] 150:23 trended [1] 149:17 trillion [1] 191:20 true [3] 57:2 188:6 204:3 truly [1] 155:18 try [2] 92:18 119:2 trying [2] 92:14 130:7 TSX [21] 30:15 68:18 69:2,25 81:22 82:12 83:8 86:6,8,11,16 87:13,17 87:25 88:14 89:13,19 90:14,16 92:5 166:23 tumultuous [1] 192:15 turn [7] 12:17 67:5 97:9 107:2 113:8 121:2 135:25 twice [2] 198:24,25 twist [5] 24:14,15 182:6 184:7 191:24 two [48] 1:6 6:14,15,24 7:2,21,22,25 8:4,7 19:24 23:11 33:16 34:2,7,17 35:10 42:11 61:20 64:10 68:25 70:13,14 98:18,25 99:1 100:5 109:14 117:4 117:22 124:12,18 125:7 125:12 126:4,7 127:1 128:10 129:25 148:3 154:4 161:16,20 167:9 177:16 190:24 192:17 202:21 two-thirds [3] 31:16,21 38:7 type [4] 67:9,11 164:12 164:16 typical [7] 108:11 198:16 198:17 201:4,19,20 202:1 typically [1] 37:19 typographical [1] 158:9 -U- Uh-hm [1] 57:8 UK [1] 191:3 unbiased [2] 94:16 96:5	uncertain [2] 11:11 77:3 uncertainty [9] 11:12 11:18 12:10 57:6,19 64:7 100:17 103:10 107:7 undeniably [3] 35:4 197:12,23 under [7] 9:18 88:10 133:18 183:7,11 190:16 200:18 underestimated [1] 16:6 underestimates [4] 14:24 15:5 27:2 28:5 underlying [2] 160:1 194:5 understand [18] 3:19 4:17,21 5:5 54:6 55:9 56:19 63:9 69:4 70:20 72:4 85:16 90:23 92:14 112:6 124:20 128:8 148:20 understood [1] 68:6 undertake [2] 44:8,12 undertaking [7] 1:7,11 1:13,19,24 50:7 105:10 undertakings [2] 1:3,6 Union [2] 104:15,17 United [45] 5:4,7 21:7,9 22:20 29:8 30:24 31:16 33:8,17 36:2 37:14,20 38:18 43:6 44:9 45:12 46:1 58:20 65:20,23 103:16 109:19 110:2 113:10,21 114:4 115:17 121:17 122:16 137:3,19 168:6 170:3 179:14 180:8 190:21 191:22 192:6 196:20 197:13,24 200:7 200:11 202:10 universally [2] 186:11 188:2 university [8] 3:21 4:9 103:16 127:18 157:13,17 170:15,21 unknown [1] 11:9 unless [1] 161:2 Unlimited [1] 204:13 unregulated [12] 7:16 128:18,19 129:16,22 130:10,11,21,24 131:1,4 152:3 unsecured [1] 164:13 unusual [3] 36:19 110:4 182:9 unusually [2] 11:19,21 unwilling [2] 107:13 108:18 up [42] 1:8 14:6 18:6 21:1 31:10 40:17 45:24 49:5 54:1 61:17 68:24 69:22 69:23 70:11 72:19 73:3 73:8 78:10,15 79:22 80:6 82:13 84:21 85:20 93:9 93:22 97:10 99:10 101:21 107:2 118:16 137:1 169:18 171:23 172:3,4 174:11 188:4,12 192:17
--	--	---	---	---

193:19 196:23 update [1] 1:8 updates [1] 158:5 upward [3] 94:11 95:1 102:16 urgently [1] 185:20 used [50] 6:19,21 7:2,21 12:18,20,22 17:8,10 20:18 29:23 36:21 37:14 39:19 41:5 42:15 55:16 58:24 59:3 60:5 61:20 65:14,16,22 66:13 67:10 72:8 73:11,20 74:7,10 74:25 75:4 84:21 88:8 88:20 92:24 108:4 116:25 117:10 119:5 143:14 144:3 146:15 180:24 181:17 182:12 187:17 188:23 198:21 useful [6] 178:24 195:25 197:6,8,8,23 uses [5] 18:5 24:1 32:3 128:24 176:12 using [22] 34:10 35:4,13 37:8 41:2 54:18 55:11 60:2 62:5,16 65:19 74:12 86:22,25 87:6 103:7,11 138:21 170:19 171:12 175:4 179:22 usually [1] 192:1 utilities [240] 4:18,23,23 5:23 6:4,15,16,16,19,20 6:25 7:5,5,10,11,22,23 7:25 8:2,3,8,15,19,20 9:3 9:23,24 10:1,3,4,6,15,17 11:3 12:6,9,12 13:24,25 14:25 15:6,12,14,17 16:1 16:9,10,12 17:2,7,12 18:8,15,24 19:1,20,25 20:6,7 21:23 22:12,17 22:18,19 23:3,4,8,9,15 23:17 25:12,15,25 26:10 26:12,15,19 28:9 30:1 34:16,17 35:23,23 36:8 36:9,19 37:9 44:1 45:4,6 47:14 48:7,10,22 50:19 51:17 52:12 53:7,15 64:11 65:20,24 68:18 69:2,25 70:4,5 71:21,23 71:24 74:13,17,18 75:12 75:19,21 78:6 82:15 86:18 87:1,24 88:3,7,14 88:19,22 89:11,17 90:7 90:15,18 91:9 92:5,6,7,8 92:10 97:22 98:16,18,19 98:20,21 104:11 105:12 107:7,10,20 110:1 112:25 113:12,17 114:22,23 115:1,4,5,13,14,18 116:21,22 117:1,2,8 119:21,23 120:13,14 121:6,12,15,17 122:2,3 122:25 123:3,3 124:5,10 124:13,14 128:13 129:25 131:22 134:3 136:18 149:8,9,17,18 151:8,18 151:21 152:2 158:23 161:23 162:4,6 163:24 165:10,21,22,24 167:18 169:2 172:14,18 173:6	173:15,17 174:17,22 175:1 176:10 177:2,4,4 177:6 179:25 180:15,16 180:21,22 181:5,7,10,12 188:2 193:12 196:21 197:3 198:8,10,23,24 199:1,12 201:8 204:7 utility [72] 6:21,22 7:7 7:14,15 8:6,11 11:4 12:4 15:12,23 19:17,19 21:14 22:13 25:17 29:19 30:9 30:15 34:18,21 36:2,3 40:4 43:9 51:14 72:20 74:12 81:20 82:9 84:18 84:23,25 85:19 90:4 91:17,19 93:7,10 97:17 109:9 111:5 112:16 116:1 116:2 118:4 128:12 137:4 142:6 159:1,6,8 160:15 161:7,12 162:1,14 172:19 172:21 174:14 175:21 176:22 177:22 179:10 180:14 181:1 196:14 198:16,17 201:4,16 202:2 -V- valid [2] 148:25 189:4 value [24] 13:2 17:9 37:24 41:18 42:1,9 51:13 54:11 59:9 95:16 96:18 125:20,22 126:22 129:6 143:6 154:19,20 155:4,7 155:19 176:20 195:22 196:19 values [12] 41:20,21,23 51:19 129:4 130:18 154:13,14,15 155:1,24 155:25 Vander [372] 2:9,10,17 2:21 3:2,5,10,14,24 4:5 4:14,25 5:8,13,17 6:6,18 7:1,24 9:4 10:5,13 11:5 12:7,21 13:21 14:8,12 14:21 15:7 16:25 17:5 17:18 18:1,20 19:10,23 20:12 21:12 22:22 23:25 24:22 25:13,21 26:24 27:9 28:1,14,16,21,22 29:3,6,10,14,22 30:5,10 30:16,21 31:1,7,12,18 31:23 32:9,13 33:2,9,21 34:3,11,23,24 35:7,15 36:4,13 37:6,11,16,21 37:22 38:4,11,15,22 39:5 39:16 40:1 41:4,10 42:16 42:21,25 43:11,17,24 44:8,14,23 45:8,22 46:3 46:16 47:1,10 48:1,11 48:15 49:2 50:14,22 51:1 51:25 52:5,10,15,20,24 53:3,8,11 54:3,9,16 55:1 55:6,10,13,19 56:1,12 56:18 57:1,9 58:14,22 60:16 61:8,25 62:8,21 62:25 63:5,15,25 64:24 65:4,10,13 66:1,25 67:8 67:14,22 68:9,14,21 69:9 69:13 70:2,16,20,21 71:6 71:11,20 72:7,15,16,25 73:14 74:9 75:2,16,25 76:15,19,25 77:10,14,19	78:1,9,13,21 79:2,8,13 79:17 80:1,4,10,16,24 81:13 82:17,24 83:4,14 83:19,22 84:7,11,22 85:4 85:12 86:12,20 87:8,18 87:20 88:1,15 89:9,15 89:20 90:5,20,22 91:2 91:13,17,23 92:17 93:3 93:21 94:6 95:6,22 96:7 96:14 97:3,9 98:2,14 99:4,8,15 100:9,12 101:12 102:7 103:3,5,13 103:20 104:9,13,18 105:1 105:7,15,23 106:5,10,15 106:22 107:1 108:12,22 109:13,22 110:3,9,13,21 111:8 112:13,20 113:13 113:22 114:18 115:16,20 116:3,16 117:15,23 118:17 119:12,24 120:3 120:8,11,17 121:10 122:9 122:17 123:25 124:24 125:4,8,14,19,25 126:15 126:21 127:5,6,10 128:9 128:21 129:23 130:15 131:15,24 132:3,12,23 132:25 133:5,9,13,21 134:1,9,11,15,19,24 135:5,10,18 136:3,8,14 136:20,23 137:14,17,23 138:8 139:14,18,19,25 140:7,16,25 141:25 142:7 142:18 143:4,9,17 144:7 144:20 146:11,16 147:25 148:14 149:10,20 150:8 151:1,10,16 152:12,24 153:9,13,22 154:3 155:17 156:2,11 166:1,9 175:14 177:12 variability [9] 20:17 23:4,6,15 35:20 114:25 124:7 141:3,7 variable [1] 9:18 variety [2] 22:5 135:1 various [4] 10:25 78:25 116:11 117:24 vary [2] 63:18 76:9 verbal [1] 136:5 verify [2] 85:22,24 verses [1] 196:10 versus [3] 22:18 34:13 35:23 vertically [3] 118:16 119:11 135:8 via [1] 98:9 view [11] 38:9 53:13 66:22 90:25 94:22 110:14 110:19 148:13 149:8 152:20 165:12 viewed [1] 146:8 views [2] 107:11 129:5 Vilbret [3] 198:4,5,12 virtually [2] 20:15 126:22 volatility [3] 21:3 170:1 170:2 Volume [1] 3:7	-W- wait [1] 45:18 warranted [3] 89:17,21 89:23 water [1] 137:4 weakest [2] 136:19 137:5 weather [1] 22:25 Week [1] 157:20 Weide [371] 2:9,10,17 2:21 3:2,5,10,14,24 4:5 4:14,25 5:8,13,17 6:6,18 7:1,24 9:4 10:5,13 11:5 12:7,21 13:21 14:8,12 14:21 15:7 16:25 17:5 17:18 18:1,20 19:10,23 20:12 21:12 22:22 23:25 24:22 25:13,21 26:24 27:9 28:1,14,16,21,22 29:3,6,10,14,22 30:5,10 30:16,21 31:1,7,12,18 31:23 32:9,13 33:2,9,21 34:3,11,23,24 35:7,15 36:4,13 37:6,11,16,21 37:22 38:4,11,15,22 39:5 39:16 40:1 41:4,10 42:16 42:21,25 43:11,17,24 44:8,14,23 45:8,22 46:3 46:16 47:10 48:1,11,15 49:2 50:14,22 51:1,25 52:5,10,15,20,24 53:3,8 53:11 54:3,9,16 55:1,6 55:11,13,19 56:1,12,18 57:1,9 58:14,22 60:16 61:8,25 62:8,21,25 63:5 63:16,25 64:24 65:4,10 65:13 66:1,25 67:8,14 67:22 68:9,14,21 69:9 69:13 70:2,16,20,21 71:6 71:11,20 72:7,15,16,25 73:14 74:9 75:2,16,25 76:15,19,25 77:10,14,19 78:1,9,13,21 79:2,9,13 79:17 80:1,4,10,16,24 81:13 82:17,24 83:4,14 83:19,22 84:7,11,22 85:4 85:12 86:12,20 87:8,19 87:20 88:1,15 89:9,15 89:20 90:5,20,23 91:2 91:13,17,23 92:17 93:3 93:21 94:7 95:6,22 96:7 96:14 97:3,9 98:2,14 99:4,8,15 100:9,12 101:12 102:7 103:3,5,13 103:20 104:9,13,18 105:1 106:22 107:1 108:12,22 109:13,22 110:3,9,13,21 111:8 112:13,20 113:13 113:22 114:18 115:16,20 116:3,16 117:15,23 118:17 119:12,24 120:3 120:8,11,17 121:10 122:9 122:17 123:25 124:24 125:4,8,14,19,25 126:15 126:21 127:5,6,10 128:9 128:21 129:23 130:15 131:15,24 132:3,12,23 132:25 133:5,9,13,21 134:1,9,11,15,19,24 135:5,10,18 136:3,8,14 136:20,23 137:14,17,23 138:8 139:14,18,19,25 140:7,16,25 141:25 142:7 142:18 143:4,9,17 144:7 144:20 146:11,16 147:25 148:14 149:10,20 150:8 151:1,10,16 152:12,24 153:9,13,22 154:3 155:17 156:2,11 166:1,9 175:14 177:12	136:20,23 137:14,17,23 138:8 139:14,18,19,25 140:7,16,25 141:25 142:7 142:18 143:4,9,17 144:7 144:20 146:11,16 147:25 148:14 149:10,20 150:8 151:1,10,16 152:12,24 153:9,13,22 154:3 155:17 156:2,11 166:1,10 175:14 177:12 Weide's [1] 47:2 weight [24] 14:3,19 15:1 17:16 27:20,25 28:9 31:6 31:10 34:25 37:19,24 38:1,20,24 39:2,3,8,12 39:17,23 41:7 75:14 100:19 weighted [2] 70:19 154:21 weighting [3] 31:4,5 38:10 whatsoever [1] 200:23 whereas [4] 8:17 114:10 130:10 169:11 whole [14] 15:13,16,19 44:20,23 57:3 95:23 117:11 146:2 166:12,19 177:20 179:9 180:20 wide [2] 11:15 22:5 widely [2] 37:14 102:24 wind [1] 173:22 window [2] 174:2,4 wish [3] 3:13 158:5 175:9 withholding [2] 169:14 195:7 within [8] 42:20 58:1 124:20 169:5,8 183:4 188:19 191:22 without [7] 43:15 143:23 159:22 168:12 169:11 172:19 197:9 witness [6] 2:8 41:6 86:2 156:22 193:18 198:9 witnesses [4] 175:21 176:22 180:1 201:10 wonder [4] 138:23 143:15 144:10 153:25 wondering [1] 133:19 words [4] 29:23 143:11 189:13 191:8 works [3] 16:11 192:2 198:5 world [4] 190:15,15 192:16 193:21 worse [1] 147:9 worst [3] 162:24,24 201:15 worth [3] 167:5 191:14 191:16 written [3] 3:8 44:10 97:14 wrong [7] 90:24 150:1 151:3,4 153:17 189:19 189:20
---	---	---	--	--

-Y- Yahoo [2] 176:9,11 year [22] 26:13 46:8 54:1 77:8,23 80:5,6,19,20 81:18 129:19 167:7,21 167:24 173:14 174:2,4 174:20 181:2 188:13 191:20 192:18 years [58] 4:13 15:21 16:1 18:7 21:2,17,19,22 21:25 26:15 42:20 51:20 70:25 71:9,17 82:7 87:14 88:22 90:9 98:25 111:18 115:3 118:3,5 121:24 129:17 151:22 154:22 157:16 159:8,12,19 160:12 161:16,20 162:22 162:25 163:3 164:22,24 165:5 166:16 168:11 169:12,24 172:24 177:25 178:7,12 180:23,25 181:3 181:15 184:16 186:8 190:24 193:6 199:21 yesterday [3] 129:14 142:10 144:11 yet [7] 32:10 81:25 146:1 162:23 167:10 200:18 201:16 yield [40] 69:5,5,19,23 70:11 73:7,20,23 75:7 76:14,15 78:8,11,17,19 79:22,25 81:9,20 82:8 84:18 85:8 94:15 96:3 96:11 99:11,20 100:2 101:6 102:2 182:7 187:17 188:3 191:24 192:3 193:8 194:23 195:13,22 196:9 yields [20] 1:16 69:6 72:23 74:13,20 79:6 181:24 182:5 184:6,8 185:3,14,16 186:20,24 192:20 195:17 197:13,14 199:10 York [1] 113:19 yourself [4] 48:4 52:19 98:15 124:9 -Z- Zen [1] 173:23 zero [4] 130:20 171:21 187:5,8 <td data-bbox="423 111 711 1992"></td> <td data-bbox="711 111 992 1992"></td> <td data-bbox="992 111 1273 1992"></td> <td data-bbox="1273 111 1559 1992"></td>				
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