BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application for an increase in water and wastewater rates in Charlotte, Highlands, Lake, Lee, Marion, Orange, Pasco, Pinellas, Polk, and Seminole Counties by Utilities, Inc. of Florida
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Docket No. 20200139-WS

REBUTTAL TESTIMONY

OF

DYLAN W. D'ASCENDIS, CRRA, CVA

on behalf of

Utilities, Inc. of Florida

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I. INTRODUCTION

Q. Please state your name, profession, and address.

A. My name is Dylan W. D'Ascendis. I am a Director at ScottMadden, Inc. My business address is 3000 Atrium Way, Suite 241, Mount Laurel, NJ 08054.

Q. On whose behalf are you presenting this testimony?

A. I am presenting this testimony and appearing on behalf of Utilities, Inc. of Florida. ("UIF" or the "Company"), the applicant for rate increase in the present docket.

Q. Did you submit Direct Testimony in this proceeding?

A. Yes, I did.

II. PURPOSE AND OVERVIEW OF TESTIMONY

Q. What is the purpose of your Rebuttal Testimony in this proceeding?

A. The purpose of my Rebuttal Testimony is to respond to and address serious shortcomings in the direct testimony of witness David J. Garrett, testifying on behalf of the Florida Office of Public Counsel ("OPC"), regarding the Company's Cost of Common Equity ("ROE") and capital structure.

Q. Please summarize your conclusions.

A. UIF's proposed ROE of 11.75% should not be reduced as Mr. Garrett recommends. In my response to Mr. Garrett's estimate of the Company's ROE (*see*, Section IV below), I explain the shortcomings of Mr. Garrett's analyses and conclusions, including, but not limited to:

- His reliance on a hypothetical capital structure for ratemaking purposes;
- How far disconnected his recommended ROE is from his own analytical results and observable and relevant data;
- His misinterpretation of the relationships between various returns;
- His misunderstanding of the nature of utility regulation;
- His misapplication of the Discounted Cash Flow ("DCF") model;

- His misapplication of the Capital Asset Pricing Model ("CAPM"); and
- His refusal to consider a small size premium in his ROE recommendation.

In addition, I also respond to Mr. Garrett's unfounded critiques of my Direct Testimony.

Q. Please summarize your interpretation of current capital markets.

A. As explained in Section III below, the turmoil in capital markets attributable to the COVID-19 pandemic has increased risk for the entire economy, generally, and utilities, specifically. Key takeaways include:

- The full impact and duration of the COVID-19 pandemic are unknown, and outcomes are still highly uncertain; and
- The same increased market volatility that caused investors' "flight to safety" also created a situation where utilities traded in tandem with market indices. The correlated returns of utility stocks and market indices, in combination with increased volatility, increases beta coefficients ("beta") (a measure of market risk), and by extension, investor-required returns.

Q. Have you prepared an exhibit supporting your Rebuttal Testimony?

A. Yes, I have. My analyses and conclusions are supported by the data presented in Exhibit DWD-3, which contains Schedules 1 through 6, which have been prepared by me or under my direction and supervision.

III. <u>CAPITAL MARKET CONDITIONS</u>

Q. Have capital market conditions changed significantly since you filed your Direct Testimony?

A. No, they have not. Since the filing of my Direct Testimony, capital markets have continued to be characterized by high levels of volatility and market instability, and utility returns have continued to be highly correlated with the overall market.

Q. Please briefly summarize Mr. Garrett's observations of utility stocks in relation to the capital market and the conclusions he reached.

A. While Mr. Garrett provides no discussion of the capital market environment, in general, and the effects of the recent capital market dislocation on the utility sector, in particular, he argues that the Company's "true" Cost of Equity is low because "utilities are defensive firms that experience little market risk and are relatively insulated from market conditions."[1]

Q. Do you agree with Mr. Garrett's statements that utilities are "low risk" investments and "relatively insulated from market conditions" in the current capital market?

A. No, I do not. While Mr. Garrett considers utility stocks as "low-risk" investments, in this period of extreme market volatility, they are not.

Q. Have you conducted an analysis to determine whether water utility stocks are "low-risk" investments in the current market?

A. Yes, I have. Specifically, I analyzed the relative performance and annualized volatilities[2] of my proxy group, the Dow Jones Utility Average ("DJU"), the Utilities Select SPDR ("XLU"), the Dow Jones Industrial Average ("DJI"), and the S&P 500 to gauge whether utilities weathered the COVID-19 pandemic better than the overall market. As shown on Exhibit DWD-3, Schedule 1 and Table 1, below, from January 31, 2020[3] to November 13, 2020, utilities were generally more volatile (*i.e.*, risky) than the market indices, and had returns that underperformed the DJI and the S&P 500.

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1 Direct Testimony of David J. Garrett, at 31.

2 The annualized volatility of a stock is measured by taking the standard deviation of the price changes within the sample and multiplying by the square root of 252 (the assumed number of trading days in a year).

3 I chose January 31, 2020 because on June 8, 2020, the National Bureau of Economic Research determined that a peak in monthly economic activity occurred in the U.S. economy in February 2020. The peak marks the end of the expansion that began in June 2009 and the beginning of a recession. https://www.nber.org/cycles/june2020.html.

Table 1: Annualized Volatility and Returns of Utility Groups and Market Indices February 2020 – mid-November 2020

	Proxy Group	Dow Jones Utility Average (DJU)	Utilities Select SPDR (XLU)	Dow Jones Industrial Average	S&P 500
Price Change	-1.72%	-2.95%	-4.19%	4.33%	11.15%
Annualized Volatility	55.64%	42.83%	42.97%	40.84%	38.35%

In addition to the analysis in Table 1, I also calculated the correlation coefficients of the price changes of the utility groups relative to the S&P 500 and the DJI from February 1, 2020 to November 13, 2020. Specifically, I calculated correlation coefficients for the following relationships:

- The price changes of the S&P 500 relative to the price changes of my proxy group;
- The price changes of the S&P 500 relative to the price changes of the DJU;
- The price changes of the S&P 500 relative to the price changes of the XLU;
- The price changes of the DJIA relative to the price changes of my proxy group;
- The price changes of the DJIA relative to the price changes of the DJU; and
- The price changes of the DJIA relative to the price changes of the XLU.

Table 2 provides the results of the calculations:

Table 2: Calculation of Correlation Coefficients for Utility Groups Relative to Market Indices from February 2020 through mid-November 2020[4]

Group	S&P 500	DJIA
Water Proxy Group	76.86%	74.94%
DJU	82.92%	82.66%
XLU	83.13%	82.56%

As shown in Table 2, the correlations between utility stocks and the market indices are

4 Source: S&P Global Market Intelligence.

similar, indicating that utility stocks have been trading in tandem with market indices during the current market dislocation, which is consistent with the risk and return data shown in Table 1. The behavior of utility stocks to move in tandem with the market during market distress is not limited to the current period. During the Great Recession (December 2007 to June 2009), correlations between these same groups were also similar, as also shown in Table 3.

Table 3: Calculation of Correlation Coefficients for Utility Groups Relative to Market Indices from December 2007 through June 2009[5]

Group	S&P 500	DJIA
Water Proxy Group	72.69%	73.36%
DJU	81.57%	82.13%
XLU	78.36%	78.59%

Thus, in view of the above, Mr. Garrett's statements regarding the "low-risk" nature of utility stocks should be dismissed, especially in this volatile capital market.

Q. What conclusions did you draw from your review of the current capital market and its implications on the Company's Cost of Equity?

A. In view of the above, current capital markets are indicating higher investor-required returns for utility companies due to the COVID-19 pandemic. Because of this, Mr. Garrett's "true" Cost of Equity of 6.00% and his recommended ROE of 9.50% are woefully inadequate, and my recommended point estimate of 11.75% for the Company is appropriate, if not conservative.

IV. RESPONSE TO OPC WITNESS GARRETT

Q. Please provide a summary of Mr. Garrett's analyses and recommendations regarding the Company's Cost of Capital.

A. Although Mr. Garrett believes the Company's "true" Cost of Equity is 6.00%, he recommends

[5] Source: S&P Global Market Intelligence.

an ROE of 9.50%.[6] Mr. Garrett estimates the Cost of Equity using the Quarterly DCF model (6.00%) and the CAPM (6.10%).[7]

Regarding his recommended capital structure, Mr. Garrett finds that utilities can generally afford to have "relatively higher debt ratios" given their stable business profile.[8] And while Mr. Garrett reviews the capital structure ratios for the Utility Proxy Group, he finds those levels "lower than what would be observed in a pure competitive environment."[9] He ultimately concludes that the appropriate capital structure for UIF consists of 50.00% long-term debt, 5.00% short-term debt, and 45.00% common equity, based on his review of debt ratios in place at competitive industries as well as the Utility Proxy Group.[10]

Q. In what key areas are Mr. Garrett's analyses and recommendations incorrect or unsupported?

A. There are several areas in which Mr. Garrett's analyses and conclusions are incorrect or unsupported, including: (1) his choice to select a hypothetical capital structure for UIF; (2) his recommended ROE has seemingly no empirical basis, (3) his incorrect assessment of the relationships between returns and their applicability to the Company's ROE; (4) his incorrect observation that authorized ROEs have exceeded the investor-required return on the market for 30 years; (5) his misapplication of the DCF model; (6) his misapplication of the CAPM; and (7) his refusal to consider a small size premium in his ROE recommendation. Those points are discussed in turn, below.

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6 Direct Testimony of David J. Garrett, at 6; and Exhibit DJG-12. Mr. Garrett specifically argues the models he applies estimate the "true cost of equity"; the average of his model results is 6.00%.

7 Exhibits DJG-6 and DJG-11, respectively.

8 Direct Testimony of David J. Garrett, at 76.

9 *Ibid*., at 76.

10 *Ibid*., at 78.

A. Capital Structure

Q. What factors should typically be considered when determining whether to use an actual or hypothetical capital structure for ratemaking purposes?

A. The factors typically considered relative to the use of a regulated subsidiary's actual capital structure, its Parent's, or a hypothetical capital structure, are provided by David C. Parcell in The Cost of Capital – A Practitioner's Guide ("CRRA Guide"), prepared for the Society of Utility and Regulatory Financial Analysts ("SURFA"), and provided as the study guide to candidates for SURFA's Certified Rate of Return Certification Examination. The CRRA Guide discusses the considerations that help determine whether the utility versus parent capital structure are appropriate:

1) Whether the subsidiary utility contains all its capital from the parent, or issues its own debt and preferred stock;
2) Whether the parent guarantees any of the securities issued by the subsidiary;
3) Whether the subsidiary's capital structure is independent of its parent (*i.e.*, existence of double leverage, absence of proper relationship between risk and leverage of utility and non-utility businesses); and
4) Whether the parent (or consolidated enterprise) is diversified into non-utility operations.[11]

The CRRA Guide then notes the circumstances where a hypothetical capital structure is used in favor of an actual capital structure. They are:

1) The utility's capital structure is deemed to be substantially different from the typical or "proper" capital structure; or
2) The utility's capital structure is funded as part of a diversified organization whose

[11] *See,* David C. Parcell, The Cost of Capital – A Practitioner's Guide, Prepared for the Society of Utility and Regulatory Financial Analysts, 2010 Edition, at 46.

overall capital structure reflects its diversified nature rather than its utility operations only.[12]

Phillips echoes the CRRA Guide when he states:

> Debt ratios began to rise in the late 1960s and early 1970s, and the financial condition of the public utility sector began to deteriorate. It became the common practice to use actual or expected capitalizations; actual where a historic test year is used, expected when a projected or future test year is used.[83] (footnote omitted)
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> The objective, in short, shifted from minimization of the short-term cost of capital to protection of a utility's ability "to raise capital at all times." This objective requires that a public utility make every effort to keep indebtedness at a prudent and conservative level."[84] (footnote omitted)
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> *A hypothetical capital structure is used only where a utility's actual capitalization is clearly out of line with those of other utilities in its industry or where a utility is diversified.*[85] (footnote omitted) (italics added)[13]

Q. How did you consider these factors when determining the appropriateness of UIF's actual capital structure?

A. As noted below, UIF's parent capital structure is in line with the capital structures in place at the Utility Proxy Group. Further, UIF's parent, Corix Regulated Utilities, Inc., solely operates regulated water utilities. Therefore, the use of UIF's parent company capital structure reflects the risk of the Utility Proxy Group.

Based on the criteria set forth in the CRRA Guide, authored by Parcell and reinforced by Phillips' reasoning, imposing a hypothetical capital structure would be inappropriate. UIF's proposed capital structure is reasonable and should be approved by the Commission.

Q. How does the Company's actual common equity ratio of 49.39% compare with the common equity ratios maintained by the Utility Proxy Group?

A. As noted in my Direct Testimony, the range of equity ratios maintained by the Utility Proxy

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12 *See, Ibid.*, p. 47.

13 Charles F. Phillips, Jr., The Regulation of Public Utilities – Theory and Practice, 1993, Public Utility Reports, Inc., Arlington, VA, at 391.

Group is between 38.48% and 57.05%, with an average of 49.34%.[14] The Company's actual capital structure demonstrates both the reasonableness of using it to set rates and the Company's relative financial health. Setting the weighted average cost of capital ("WACC") as requested by the Company will continue to support the long-term financial health of the Company for the benefit of its stakeholders, including its customers.

I also considered *Value Line's* projected capital structures for the Utility Proxy Group for 2023-2025. That analysis shows a range of projected common equity ratios between 41.00% and 64.00%.

Q. Does Mr. Garrett review the Value Line capital structure data for the proxy group?

A. Yes. Mr. Garrett finds the average debt ratio of the proxy group to be 50.00%, which would indicate an equity ratio of 50.00%,[15] which is in line with the Company's requested common equity ratio.

Q. Is Mr. Garrett's review of non-utility industries reasonable in assessing the Company's capital structure?

A. No. As noted in Section IV, the industries which Mr. Garrett uses in his assessment of the Company's capital structure are not comparable to UIF, and his use of non-utility industry capital structures should be dismissed.

Q. What is your conclusion regarding the Company's capital structure?

A. Notwithstanding the issues with Mr. Garrett's analyses discussed above, I maintain that the Company's proposed capital structure to be reasonable compared with the range of equity ratios maintained by the Utility Proxy Group from which I derive my recommended common equity cost rate.

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[14] Direct Testimony of Dylan W. D'Ascendis, at 19.

[15] Direct Testimony of David J. Garrett, at 80.

B. Lack of Empirical Basis for ROE Recommendation

Q. Please provide a brief summary of Mr. Garrett's analyses and recommendations regarding the Company's Cost of Equity.

A. Although Mr. Garrett believes the Company's "true" Cost of Equity is 6.00%, he recommends an ROE of 9.50%.[16] Mr. Garrett estimates the Cost of Equity using the Quarterly DCF model (6.00%) and the CAPM (6.10%).[17]

Q. Are Mr. Garrett's analytical results and recommendation reasonable measures of the Company's Cost of Equity?

A. No, they are not. Mr. Garrett's recommended ROE of 9.50% is fundamentally disconnected from his own analyses and conclusions; his analytical model results of 6.10% and lower are far removed from observable and relevant data, including the 2019 aggregated average authorized ROEs provided in his testimony of 9.64%.[18] Throughout his testimony, Mr. Garrett believes his analytical results indicate that the "true" Cost of Equity for the Company is 6.00%. He views the decisions of utility commissions to have been significantly and consistently wrong, but suggests moving all the way to the "true" Cost of Equity would be "a significant, sudden change in the awarded ROE anticipated by regulatory stakeholders" that "could have the undesirable effect of notably increasing the Company's risk profile and would arguably be at odds with the *Hope* Court's 'end result' doctrine."[19] On those points, we agree. However, while I appreciate the need for judgment in developing ROE recommendations, I believe there should be some empirical basis for them. Since Mr. Garrett's 9.50% recommendation is so far removed from his analytical model results, we cannot assess the basis of his ultimate

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16 Direct Testimony of David J. Garrett, at 6; and Exhibit DJG-12. Mr. Garrett specifically argues the models he applies estimate the "true cost of equity"; the average of his model results is 6.00%.

17 Exhibits DJG-6 and DJG-11, respectively.

18 Exhibit DJG-14. Mr. Garrett also points to a 9.40% average authorized ROE in 2017 for water utilities. The average authorized ROE for water utilities is 9.63% for 2019. Source: Regulatory Research Associates

19 Direct Testimony of David J. Garrett, at 7.

recommendation, empirical or otherwise. To justify his recommendation for an ROE which has no connection to his analytical results, Mr. Garrett argues that the Commission should apply the ratemaking concept of "gradualism" to move the Company's ROE to his "true" Cost of Equity.[20]

Q. Has Mr. Garrett similarly disregarded the results of his analytical models in other proceedings?

A. Yes. In Case No. 9651 before the Public Service Commission of Maryland, Mr. Garrett notes that his analysis indicates the "true" Cost of Equity for Washington Gas Light Company to be 7.20%, yet he recommends a 9.00% ROE.[21] Given that Mr. Garrett's analyses in this case point to a lower return of 6.00%, but he recommends a 9.50% return, it is unclear to the extent that Mr. Garrett finds the analyses he presents to be reliable, as they clearly have no correlation with his recommendations.

Q. Do you agree with Mr. Garrett's recommendation to the Commission regarding the use of "gradualism" in determining the appropriate ROE for the Company?

A. No, I do not. The role of ROE witnesses is to testify regarding the return required by equity investors, *i.e.,* the Cost of Equity, as will be discussed in detail below. It is the Commission's difficult task in fixing just and reasonable rates to balance that cost with all other elements of the revenue requirement. As Mr. Garrett himself stated, "gradualism" is "usually applied from the customer's standpoint to minimize rate shock,"[22] and therefore would not be applicable to the ROE recommendation. In view of the above, Mr. Garrett's recommendation is without merit or empirical support, and should be given no weight by the Commission.

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[20] *Ibid.*

[21] *See, In the Matter of the Application of Washington Gas Light Company for Authority to Increase its Existing Rates and Charges and to Revise its Terms and Conditions for Gas Service,* Case No. 9651, Public Service Commission of Maryland, Direct Testimony of David J. Garrett (November 20, 2020), at 6 – 7.

[22] Direct Testimony of David J. Garrett, at 7.

C. Incorrect Assessment of Relationships Between Various Returns and Applicability to the Company's ROE

Q. Please summarize Mr. Garrett's views on the relationship between the Cost of Equity, the investor-required ROE, earned ROE, and awarded ROE for regulated utilities.

A. Mr. Garrett believes the above specified returns are all interrelated, but technically different.[23] He summarizes his view on the relationship between the returns on pages 4-5 of his testimony in the following sentence: "If the awarded ROE reflects a utility's cost of equity, then it should allow the utility to achieve an earned ROE that is sufficient to satisfy the required return of its investors."[24] Mr. Garrett also discusses another type of return, the "expected" return, which in his words, "has nothing to do with what the investor 'expects' the ROE awarded by a regulatory commission to be."[25]

Q. Does Mr. Garrett's views regarding the relationship between allowed and investor-required ROEs for utilities change throughout the course of his testimony?

A. Yes. On page 14 of his testimony, Mr. Garrett contradicts his earlier assertion, stating that awarded ROEs and Cost of Equity (*i.e.,* investor-required returns) are very different concepts because of the regulatory process and may be influenced by a number of factors other than objective market drivers.[26] However, one page earlier, on page 13 of his testimony, Mr. Garrett states:

> The *Hope* Court makes it clear that the allowed return should be based on the actual cost of capital. Under the rate base rate of return model, a utility should be allowed to recover all its reasonable expenses, its capital investments through depreciation, and a return on its capital investments sufficient to satisfy the required return of its investors. The "required return" from the investors' perspective is synonymous with the "cost of capital" from the utility's perspective. Scholars agree that the allowed rate of return should be based on

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23 *Ibid*., at 4.
24 *Ibid*., at 4 – 5.
25 *Ibid*.
26 *Ibid*., at 14.

the actual cost of capital:

> Since by definition the cost of capital of a regulated firm represents precisely the expected return that investors could anticipate from other investments while bearing no more or less risk, and since investors will not provide capital unless the investment is expected to yield its opportunity cost of capital, the correspondence of the definition of the cost of capital with the court's definition of legally required earnings appears clear.[27,28]

Mr. Garrett continues to change his position regarding the equivalency, or non-equivalency, of the allowed and required ROE, sometimes in consecutive sentences. For example, on page 14 of his testimony, Mr. Garrett states that "The two concepts [allowed and required ROEs] are related in that the legal and technical standards encompassing this issue require that the awarded return reflect the true cost of capital. On the other hand, the two concepts are different in that the legal standard do not mandate that awarded returns exactly match the cost of capital."[29]

Q. What is your reaction to Mr. Garrett's views on the relationship between allowed and required ROEs for utility companies?

A. Mr. Garrett is unnecessarily complicating a simple relationship. For regulated utilities, the ROE equals the investor-required ROE which equals the allowed ROE, as reflected in the *Hope* and *Bluefield* Supreme Court decisions cited in both my Direct Testimony[30] and Mr. Garrett's testimony.[31] This relationship holds because utility regulation by regulatory commissions acts as a substitute for competition as Mr. Garrett clearly understands and accepts.[32]

Q. Is the concept of utility regulation as a substitute for market competition widely accepted

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27 A. Lawrence Kolbe, George A. Read, Jr, George Hall, *The Cost of Capital: Estimating the Rate of Return for Public Utilities*, The MIT Press, 1984, at 21.

28 Direct Testimony of David J. Garrett, at 13.

29 *Ibid*., at 14. [Clarification and emphasis added.]

30 Direct Testimony of Dylan W. D'Ascendis, at 6.

31 Direct Testimony of David J. Garrett, at 12 – 13.

32 *Ibid*., at 75.

as a fact and reflected as such in academic literature?

A. Yes, it is. The *Cost of Capital Manual*, which is the training manual for SURFA, of which Mr. Garrett and I are members, states:

> In a sense, the "visible hand of public regulation was (created) to replace the invisible hand of Adam Smith in order to protect consumers against exorbitant charges, restriction of output, deterioration of service, and unfair discrimination."[footnote omitted]
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>
> As indicated above, regulation of public utilities reflects a belief that the competitive mechanism alone cannot be relied upon to protect the public interest. Essentially, it is theorized that a truly competitive market involving utilities cannot survive and, thereby, will fail to promote the general economic welfare. But this does not mean that regulation should alter the norm of competitive behavior for utilities. On the contrary, the primary objective of regulation is to produce market results (*i.e.,* price and quantity supplied) in the utility sectors of the economy closely approximating those conditions which would be obtained if utility rates and services were determined competitively.[33]

Additionally, in *Principles of Public Utility Rates*, Dr. Bonbright states:

> Lest the reader of this chapter gain the impression that it is intended to deny the relevance of any tests of reasonable rates derived from the theory or the behavior of competitive prices, let me state my conviction that no such conclusion would be warranted. On the contrary, a study of price behavior both under assumed conditions of pure competition and under actual conditions of mixed competition is essential to the development of sound principles of utility rate control. Not only that: any good program of public utility rate making must go a certain distance in accepting competitive-price principles as guides to monopoly pricing. For rate regulation must necessarily try to accomplish the major objectives that unregulated competition is designed to accomplish; and the similarity of purpose calls for a considerable degree of similarity of price behavior.
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> Regulation, then, as I conceive it, is indeed a substitute for competition; and it is even a partly imitative substitute. But so is a Diesel locomotive a partly imitative substitute for a steam locomotive, and so is a telephone message a partly imitative substitute for a telegraph message. What I am trying to emphasize by these crude analogies is that the very nature of a monopolistic public utility is such as to preclude an attempt to make the emulation of competition very close. The fact, for example, that theories of pure competition leave no room for rate discrimination, while suggesting a reason for viewing the practice with skepticism, does not prove that discrimination should be

[33] David C. Parcell, *Cost of Capital Manual*, Society of Utility and Regulatory Financial Analysts, 2010 Edition, at 3-4.

> outlawed. And a similar statement would apply alike to the use of an original-cost or a fair value rate base, neither of which is defensible under the theory or practice of competitive pricing.[34]

Finally, Dr. Phillips states in *The Regulation of Public Utilities*:

> Public utilities are no longer, if they were ever were, isolated from the rest of the economy. It is possible that the expanding utility sector has been taking too large a share of the nation's resources, especially of investment.[footnote omitted] At a minimum, regulation must be viewed in the context of the entire economy – and evaluated in a similar context. Public utilities have always operated within the framework of a competitive system. They must obtain capital, labor and materials in competition with unregulated industries. Adequate profits are not guaranteed to them. Regulation then, should provide incentives to adopt new methods, improve quality, increase efficiency, cut costs, develop new markets and expand output in line with customer demand. In short, regulation is a substitute for competition and should attempt to put the utility sector under the same restraints competition places on the industrial sector.[35]

In view of the legal standard cited by me and Mr. Garrett, and treatises on regulation likening regulation of utilities and the competitive market, it is plain to see that allowed returns and investor-required returns are also equal.

Q. What is the relationship between the earned ROE and the required/allowed ROE for utility companies?

A. The earned ROE is the return realized by the utility. The regulatory commission allows the utility an opportunity to earn its required return, but what the utility earns is generally subject to several factors, which may include regulatory lag and management efficiency.

Q. What is the relationship between expected returns and required/allowed ROE?

A. In this instance, I agree with Mr. Garrett that the expected return has nothing to do with what the investor expects the required/allowed return should be. Expected returns from investment houses or pension funds are expectations of what earned returns will be, not what investors require, which means that expected returns have no bearing on ROE determinations.

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[34] James C. Bonbright, *Principles of Public Utility Rates*, Columbia University Press, 1961, at 106-107.

[35] Charles F. Phillips, *The Regulation of Public Utilities*, Public Utility Reports, Inc., 1993, at 173.

D. <u>Incorrect Observations that Allowed ROEs for Utilities Exceed the Investor-Required Return on the Market</u>

Q. Please summarize Mr. Garrett's claim that allowed returns for utility companies exceed the required return on the market.

A. Mr. Garrett estimates the investor-required return on the market by adding the annual average 10-year Treasury bond yield to a market risk premium ("MRP") calculated by the New York University School of Business for the period 1990–2019. He then compares that return to the average annual authorized returns for electric and gas utilities over that same period[36] to support his argument that "awarded ROEs have been consistently *above* the market cost of equity for many years."[37] Mr. Garrett also presents the authorized returns for water utilities as compared to electric and gas utilities, arguing that because the three are similar, authorized ROEs for water utilities have also exceeded the market cost of equity.[38] Mr. Garrett further argues that the excess returns awarded to utilities result in a transfer of wealth from customers to shareholders.[39]

Mr. Garrett also refers to an article published in *Public Utilities Fortnightly*,[40] suggesting that utility stocks have outperformed the broader market and will continue to do so in the future.

Q. What is your response to Mr. Garrett's observations, and the conclusions he draws from them?

A. Mr. Garrett's observations and resulting conclusions are misplaced. As a preliminary matter, Mr. Garrett's conclusion that allowed returns for utility companies exceed the required return

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36 Direct Testimony of David J. Garrett, Figure 1; and Exhibit DJG-14.

37 Direct Testimony of David J. Garrett, at 17.

38 *Ibid*., at 18.

39 *Ibid*., at 17.

40 *Ibid*., at 19 – 20.

on the market is his opinion and driven by the inputs he has chosen to estimate the required return on the market. As discussed below, applying more reasonable models and inputs demonstrate allowed ROEs average about 70.00% of the required return on the market, consistent with utility betas over the period from 1990-2019.

Regarding the *Public Utilities Fortnightly* article, it was published in August 2016, shortly after the 30-year Treasury yield fell to its prior cyclical low of 2.11% on July 8, 2016. Between July and December 2016, the utility sector, as represented by the proxy group, lost 8.55% of its value as the broader market (measured by the S&P 500) increased by 5.11%. That is, despite the article's conviction that utilities would continue to outperform the market, shortly after its publication, utility stocks meaningfully underperformed the broad market. From August 2016 through mid-November 2020, the utility sector (measured by the XLU and the Dow Jones Utility Average) significantly underperformed the S&P 500.[41]

Finally, regarding Mr. Garrett's required return on the market, I disagree with his calculation of the implied MRP because reasonable changes in his assumptions have considerable effects on the calculation (as will be discussed in detail in my critique of Mr. Garrett's CAPM analysis).

Q. Have you calculated the investor-required return on the market for the period from 1990–2019?

A. Yes, I have. Using the Predictive Risk Premium Model ("PRPM"),[42] I calculated the investor-required MRP for every month in the period from 1990–2019. I then averaged the monthly MRPs for each year and added the average 30-year Treasury bond yield to those averages to arrive at investor-required returns on the market for each year.

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[41] The XLU and DJU gained 26.73% and 28.16%, respectively, while the S&P 500 gained 65.15%. Source: S&P Capital IQ.

[42] *See*, Direct Testimony of Dylan W. D'Ascendis, at 23 – 24.

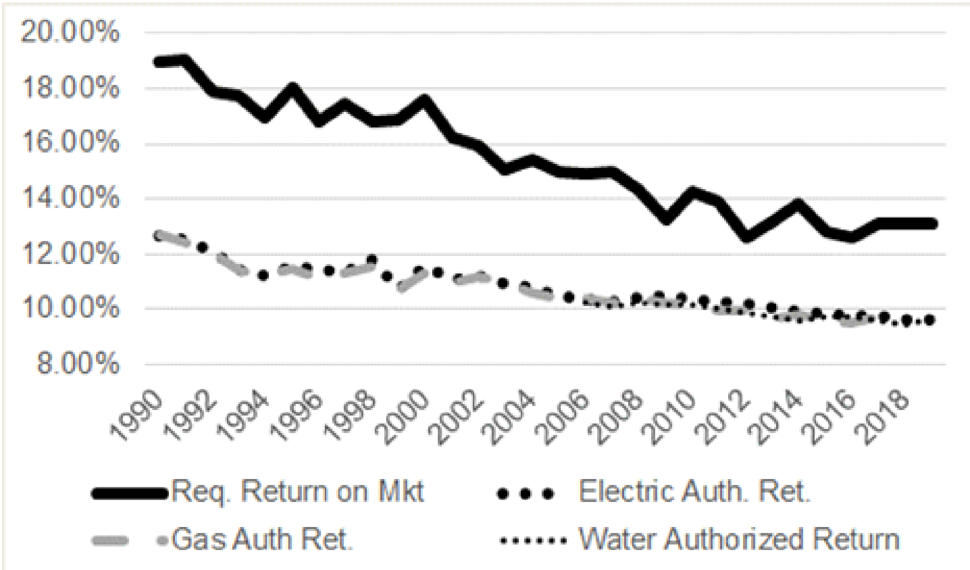
Q. How did you derive the investor-required return on the market using the PRPM??

A. As explained in my Direct Testimony, the inputs to the PRPM are the historical returns on large capitalization stocks minus the historical monthly yield on long-term U.S. Treasury securities for the period from January 1990 through December 2019.[43] Using a generalized form of ARCH, known as GARCH, each projected MRP was determined using Eviews© statistical software. When the GARCH model is applied to the historical returns data, it produces a predicted GARCH variance series and a GARCH coefficient. I then averaged the monthly investor-required return for each year to determine an annual investor-required return. I then added the annual average long-term government bond yield for each year[44] to arrive at annual investor-required returns on the market for the period from 1990-2019.

Next, I compared the investor-required return on the market to the average allowed ROEs for gas, electric, and water utilities for each year. As shown on Chart 1, the investor-required return on the market is consistently, and significantly, higher than the allowed returns for utility companies. These results make intuitive sense, as the ratio of allowed ROE versus required market return averages about 0.70, which is consistent with utility betas over the period. Given the above, Mr. Garrett's claim that allowed ROEs for utilities exceed investor-required market returns is misplaced. In addition, Mr. Garrett's claim that the excess returns awarded to utilities result in a transfer of wealth from customers to shareholders[45] is misplaced as well, since Chart 1, below, shows that utilities have not been earning excess returns.

43 Source: 2020 SBBI® Yearbook, Stocks, Bonds, Bills, and Inflation®, Appendix A-1.
44 Source: 2020 SBBI® Yearbook, Stocks, Bonds, Bills, and Inflation®, Appendix A-7.
45 Direct Testimony of David J. Garrett, at 7.

Chart 1:
Relationship Between Investor-Required Returns on the Market and Authorized Returns for Gas, Electric, and Water Utilities 1990 - 2019[46]



E. **Misapplication of the DCF Model**

Q. Please briefly describe Mr. Garrett's Constant Growth DCF analyses and results.

A. Mr. Garrett applies a quarterly form of the Constant Growth DCF Model, which produces an ROE estimate of 6.00%. For the dividend yield component, Mr. Garrett relies on announced quarterly dividend payments and 30-day average stock prices as of October 28, 2020.[47] To estimate expected growth, Mr. Garrett looks to four measures, including: (1) nominal GDP, (2) real GDP, (3) inflation, and (4) the current Risk-Free rate.[48] Of those four measures, he chooses the highest estimate, 3.90%.[49]

Q. What are your general concerns with the growth rates on which Mr. Garrett's DCF analyses rely?

46 Source: 2020 SBBI® Yearbook, Stocks, Bonds, Bills, and Inflation®, Appendix A-1, A-7; Exhibit DJG-14; S&P Global Market Intelligence. Please note, data on authorized returns for water utilities is only readily available starting with 2006.

47 Exhibits DJG-3 and DJG-4.

48 Exhibit DJG-5.

49 Direct Testimony of David J. Garrett, at 49.

A. First, Mr. Garrett assumes a single, perpetual growth rate of 3.90% for all his proxy companies.[50] By reference to the Congressional Budget Office's ("CBO") expected inflation rate of 2.00%, Mr. Garrett's method assumes his proxy companies all will grow at real rates of approximately 1.90%, in perpetuity.[51] It is unlikely an investor would be willing to assume the risks of equity ownership in exchange for expected growth only modestly greater than expected inflation. The risk simply is not worth the expected return.[52]

As to Mr. Garrett's remaining growth rate estimates (presented in his Exhibit DJG-5), none are appropriate measures of growth for his DCF analysis. As a practical matter, because they are generic in nature, his estimates fail to account for the risks and prospects faced by the proxy companies.

Q. Do you agree with the 3.90% growth rate assumed for all companies in Mr. Garrett's DCF analysis?

A. No, I do not. Mr. Garrett's 3.90% growth rate is not based on any measure of company-specific growth, or growth in the utility industry in general. Rather, his proxy group serves the sole purpose of calculating the dividend yield. Under the DCF model's strict assumptions, however, expected growth and dividend yields are inextricably related. Mr. Garrett's assumption that one growth rate applies to all companies, even though dividend yields vary across those companies, has no basis in theory or practice.

Q. Mr. Garrett also offers his thoughts regarding the need for qualitative analyses in developing expected growth rates.[53] What is your response to Mr. Garrett's observations?

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[50] Exhibit DJG-6.

[51] Exhibit DJG-5.

[52] In the risk/return space, debt securities, with a higher yield and considerably less risk of capital loss (if held to maturity) may be the preferred alternative.

[53] Direct Testimony of David J. Garrett, at 43-48.

A. Mr. Garrett suggests that although equity analysts may consider such quantitative factors as historical growth in revenues or earnings, they also should consider "qualitative" factors, such as how a given company may meet some level of "sustainable" growth.[54] He further observes unregulated companies have options not available to utilities, and suggests it would be more appropriate to consider factors such as load growth in measuring growth rate expectations.[55]

There is no question analysts consider qualitative factors. To that point, I reviewed American States Water Company's (one of the companies in Mr. Garrett's proxy group) second quarter 2020 conference call held on August 4, 2020. Analysts from several firms attended the call, including Wells Fargo and Seaport Global. During the call, analysts asked, and were given answers to a number of issues bearing directly on the factors relating to the Return on Common Equity, including regulatory mechanisms; long-term growth and sales guidance; capital expenditures; and regulatory guidance.[56]

In American States Water Company's third quarter 2020 conference call (which took place on November 3, 2020), analysts were provided with updated and additional information. During the course of the call, the company's management discussed earnings guidance and the regulatory environment. After the company's presentation, the analysts asked questions along several lines, all of which are relevant to Mr. Garrett's construct, including the effect of regulatory outcomes and schedules, and the impact of COVID-19.[57] These inquiries reflect the type of considerations analysts typically consider for utility companies.

In the case of just one of his proxy companies, therefore, the level of fundamental research performed by analysts on issues directly related to long-term growth reflected a variety of factors, both quantitative and qualitative. They certainly go beyond "mere increases

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[54] *Ibid*., at 43.
[55] *Ibid*., at 44 – 45.
[56] *See*, American States Water Company, Q2 2020 Earnings Call Transcript, August 4, 2020.
[57] *See*, American States Water Company, Q3 2020 Earnings Call Transcript, November 3, 2020.

to rate base or earnings."[58] The analysts' research also far exceeded Mr. Garrett's limited perspective that load growth forecasts, together with other "qualitative factors" support his 3.90% expected growth rate.

Q. It is Mr. Garrett's opinion that growth in a DCF model is limited by the long-term growth in GDP.[59] Why is long-term growth in GDP not an upper limit for terminal growth as Mr. Garrett contends?

A. First, GDP is not a market measure – rather, it is a measure of the value of the total output of goods and services, excluding inflation, in an economy. While I understand that earnings per share ("EPS") growth is also not a market measure, it is well established in financial literature that projected growth in EPS is the superior measure of dividend growth in a DCF model.[60] Furthermore, GDP is simply the sum of all private industry and government output in the United States, and its growth rate is simply an average of the value of those industries. To illustrate, Exhibit DWD-3, Schedule 2 presents the compound annual growth rate of the industries that comprise GDP from 1947 to 2019. Of the 15 industries represented, seven industries, including utilities, grew faster than the overall GDP, and eight industries grew slower than the overall GDP.[61]

Q. Please respond to Mr. Garrett's comment regarding "steady-state" growth rates.

A. On page 39 of his Direct Testimony, Mr. Garrett states, "…it is not necessary to use multi-stage DCF Models to analyze the cost of equity of regulated utility companies. This is because regulated utilities are already in their 'terminal,' low growth stage." While I agree with Mr.

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58 Direct Testimony of David J. Garrett, at 45.

59 *Ibid.*, at 40 – 41.

60 *See*, for example, Robert Harris, *Using Analysts' Growth Forecasts to Estimate Shareholder Required Rate of Return*, Financial Management, Spring 1986; Christofi, Christofi, Lori and Moliver, *Evaluating Common Stocks Using Value Line's Projected Cash Flows and Implied Growth Rate*, Journal of Investing, Spring 1999; Robert Harris and Felicia Marston, *Estimating Shareholder Risk Premia Using Analysts' Growth Forecasts*, Financial Management, Summer 1992; and Vander Weide and Carleton, *Investor Growth Expectations: Analysts vs. History*, The Journal of Portfolio Management, Spring 1988.

61 Exhibit DWD-3, Schedule 2.

Garrett's statement regarding regulated utilities being in the "mature" stage in the company/industry life cycle, I disagree with his conclusion regarding the long-term growth rates of regulated utilities.

As Mr. Garrett describes, the multi-stage DCF and its growth rates reflect the company/industry life cycle, which is typically described in three stages: (1) the growth stage, which is characterized by rapidly expanding sales, profits, and earnings. In the growth stage, dividend payout ratios are low in order to grow the firm; (2) the transition stage, which is characterized by slower growth in sales, profits, and earnings. In the transition stage, dividend payout ratios increase as their need for exponential growth diminishes; and (3) the maturity (steady-state) stage, which is characterized by limited, slightly attractive investment opportunities, and steady earnings growth, dividend payout ratios, and returns on equity.

Since the utility industry is in the mature phase of the company life cycle, it is the company-specific projected EPS growth rate, not the projected GDP growth rate, that is the appropriate measure of growth in a Constant Growth DCF model.

Q. Are there examples in basic finance texts that support your position?

A. Yes. For example, in *Investments*, life cycles and multi-stage growth models are discussed:

> As useful as the constant-growth DDM (dividend discount model) formula is, you need to remember that it is based on a simplifying assumption, namely, that the dividend growth rate will be constant forever. In fact, firms typically pass through life cycles with very different dividend profiles in different phases. In early years, there are ample opportunities for profitable reinvestment in the company. Payout ratios are low, and growth is correspondingly rapid. In later years, the firm matures, production capacity is sufficient to meet market demand, competitors enter the market, and attractive opportunities for reinvestment may become harder to find. In this mature phase, the firm may choose to increase the dividend payout ratio, rather than retain earnings. The dividend level increases, but thereafter it grows at a slower pace because the company has fewer growth opportunities.
>
> Table 18.2 illustrates this pattern. It gives Value Line's forecasts of return on assets, dividend payout ratio, and 3-year growth in earnings per share for a sample of the firms in the computer software industry versus those of east coast electric utilities…

> By in large, the software firms have attractive investment opportunities. The median return on assets of these firms is forecast to be 19.5%, and the firms have responded with high plowback ratios. Most of these firms pay no dividends at all. The high return on assets and high plowback result in rapid growth. The median growth rate of earnings per share in this group is projected at 17.6%.
>
> In contrast, the electric utilities are *more representative of mature firms*. Their median return on assets is lower, 6.5%; dividend payout is higher, 68%; and median growth is lower, 4.6%.
>
> ***
>
> To value companies with temporarily high growth, analysts use a multistage version of the dividend discount model. Dividends in the early high-growth period are forecast and their combined present value is calculated. Then, once the firm is projected to settle down to *a steady-growth phase, the constant-growth DDM is applied to value the remaining stream of dividends*.[62] (Clarification and emphasis added)

The economics of the public utility business indicate that the industry is in the steady-state, or constant-growth stage of a multi-stage DCF, which would mean that the three- to five-year projected growth rates for each company would be the "steady-state" or terminal growth rate appropriate for the DCF model for utility companies, not the GDP growth rate, which is not a company-specific growth rate, nor is it an upward bound for growth, as discussed previously.

Q. Mr. Garrett expressed a concern about using analysts' projected EPS growth rates because he asserts that analysts consider rate base growth in their projected growth rates and that utilities' natural financial incentive is to increase rate base regardless of customer needs.[63] Please respond.

A. The overall premise of Mr. Garrett's concern is without merit and should be dismissed. First, regulated utilities are only allowed to earn returns on and of assets that are considered used and useful in serving the needs of its customers. As the U.S. Supreme Court decision in *Duquesne*

[62] Bodie, Z., Kane, A., and Marcus, A. J., *Investments*, 7th Edition, McGraw-Hill Irwin, 2008, at 616-617.

[63] Direct Testimony of David J. Garrett, at 43 – 44.

Light Co. v. Barasch states:

> To the extent utilities' investments turn out to be bad ones (such as plants that are cancelled and so never used and useful to the public), the utilities suffer because the investments have no fair value and so justify no return.[64]

Additionally, capital projects undertaken by utility companies are often subject to prudency reviews from regulatory commissions, which would allow commissions to review and deny any capital project not deemed in the public interest. These two facts would eliminate any type of investment by the utility that is not needed to expressly provide safe, reliable service to their customers. Because of this, equity analysts correctly consider growth in rate base in determining their recommended growth rates for utilities.

Finally, as a depreciation expert, Mr. Garrett should recognize two things: (1) utility assets degrade over time and eventually need to be replaced; and (2) the assets replacing the degraded assets are usually significantly more expensive than the degraded assets. Because of this, rate base will grow consistently *ad infinitum*, which supports both the utility industry's mature position on the company/industry life cycle regarding steady and predictable growth, and the use of company-specific projected analysts' EPS growth rates for use in the Constant Growth DCF model.

Q. Mr. Garrett claims undue reliance on projected EPS growth rates in the DCF model will lead to upward spiraling ROEs for utility companies due to a feedback loop.[65] Please respond.

A. As Mr. Garrett shows in his Figure 1 concerning annual authorized returns, an upward spiraling ROE simply does not exist. The independence of authorized ROEs and market data is consistent with conclusions reached by Dr. Bonbright, who states:

> In the first place, commissions cannot forecast, except within wide limits, the effect their rate orders will have on the market prices of the stocks of the

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64 U.S. Supreme Court, *Duquesne Light Co. v. Barasch*, No. 87-1160 (1989).

65 Direct Testimony of David J. Garrett, at 46 – 47.

> companies they regulate. In the second place, *whatever the initial market prices may be, they are sure to change not only with the changing prospects for earnings, but with the changing outlook of an inherently volatile stock market*. In short, market prices are beyond the control, though not beyond the influence of rate regulation. Moreover, even if a commission did possess the power of control, any attempt to exercise it ... would result in harmful, uneconomic shifts in public utility rate levels.[66] (Emphasis added)

Given this, Mr. Garrett's concerns should be dismissed.

F. Misapplication of the Capital Asset Pricing Model

Q. Please summarize Mr. Garrett's CAPM analysis and results?

A. Mr. Garrett's CAPM estimate relies on a risk-free rate of 1.51%, an average Market Risk Premium of 6.00%, and beta coefficients as reported by *Value Line*. Those assumptions combine to produce an average CAPM estimate of 6.10%.[67]

Q. Do you agree with Mr. Garrett's CAPM analysis?

A. No, I disagree with Mr. Garrett's sole reliance on historical Treasury yields to estimate the risk-free rate and the various methods he uses to estimate the Market Risk Premium. Just as important as our methodological differences, however, is our difference regarding the reasonableness and reliability of an analysis that produces ROE estimates of 6.10%.

Q. Do you agree with Mr. Garrett's use of the average 30-year Treasury yield?

A. No. Mr. Garrett's risk-free rate ignores the fact that the cost of capital and ratemaking are both prospective. Mr. Garrett notes as such on page 56 of his Direct Testimony, "[w]hat matters in the CAPM model, however, is not the actual risk premium from the past, but rather the current and forward-looking risk premium."

Q. How did Mr. Garrett derive his MRP estimate?

A. Mr. Garrett estimates his MRP by reviewing: (1) surveys of expected returns from IESE

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66 James C. Bonbright, Albert L. Danielsen and David R. Kamerschen, *Principles of Public Utility Rates*, Public Utilities Reports, Inc., 1988, at 334.

67 Exhibit DJG-11.

Business School and Graham and Harvey (5.6% and 4.4%, respectively); (2) an expected return reported by Duff & Phelps (6.0%); (3) an implied MRP from Dr. Damodaran (5.8%); (4) a COVID-adjusted implied MRP from Dr. Damodaran (5.0%); and (5) an "Implied Equity Risk Premium" calculation (6.0%).[68] Based on those results, Mr. Garrett concludes that 6.00%, the high end of his range, is appropriate.

Q. Do you have any concerns regarding Mr. Garrett's use of an expected MRP as his selected MRP in his CAPM analysis?

A. Yes, I do. The Duff & Phelps MRP selected by Mr. Garrett is an expected return, which has no relevance to the investor-required return. As discussed previously, both Mr. Garrett and I agree that expected returns "has nothing to do with what the investor 'expects' the ROE awarded by a regulatory commission to be."[69]

Widely used finance texts recommend the use of multiple models in estimating the Cost of Equity, in particular the DCF, CAPM, and Risk Premium approaches. I reviewed articles published in financial journals, as well as additional texts that speak to the methods used by analysts to estimate the Cost of Equity. An article published in Financial Analysts Journal surveyed financial analysts to determine the analytical techniques that are used in practice.[70] Regarding stock price valuation and cost of capital estimation, the author asked respondents to comment only on the DCF, CAPM, and Economic Value-Added models. Nowhere in that article did the author consider asking whether surveys of expected returns are relevant to the determination of the Cost of Capital.

Given Mr. Garrett's correct view that expected returns have nothing to do with the investor-required return, and the lack of use by practitioners, his recommendation to use

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68 Direct Testimony of David J. Garrett, at 61 and Exhibit DJG-10.

69 Direct Testimony of David J. Garrett, at 5.

70 *See*, Stanley B. Block, *A Study of Financial Analysts: Practice and Theory*, Financial Analysts Journal, July/August 1999.

expected MRPs should be dismissed by the Commission.

Q. Do the surveys referenced by Mr. Garrett provide reasonable MRP estimates for the purpose of estimating the Company's Cost of Equity?

A. No, they do not. For example, the Graham and Harvey survey suggests an expected return on the overall market of 6.79%, based on a risk-free rate of 2.37% and an MRP of 4.42%.[71] Combining those estimates with Mr. Garrett's average beta coefficient estimate of 0.76 produces a Cost of Equity estimate of 5.73%, approximately 27 basis points below Mr. Garrett's estimate of the "true" Cost of Equity. Because utility stocks tend to be somewhat less risky than the broad market,[72] if the Graham and Harvey survey results are meaningful, Mr. Garrett's ROE recommendation would be no more than 6.79%. In fact, his recommendation exceeds the Graham and Harvey estimate by 271 basis points.

As shown in Table 4, below, in the past the Graham and Harvey survey respondents have provided forecasts that significantly underestimated actual market returns. As Table 4 demonstrates, from 2012 through 2019 the average market return was 15.55%, over 3.0 times greater than the Graham and Harvey survey average expected return of 5.30%.

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71 *See*, Graham and Harvey, *The Equity Risk Premium in 2018*, at 7 for Q4 2017.

72 As noted above, during times of market volatility this may not hold true.

Table 4:
S&P 500 Market Return vs. Graham-Harvey Survey Expected Return[73]

	Actual	Survey Estimate
2019	31.49%	4.59%
2018	-4.38%	6.57%
2017	21.83%	5.00%
2016	11.96%	4.32%
2015	1.38%	6.07%
2014	13.69%	5.00%
2013	32.39%	3.40%
2012	16.00%	4.00%
Average	15.55%	4.63%

Graham and Harvey also have noted a distinction between the expected market return on one hand, and the "hurdle rate" on the other. In the Third Quarter 2017 survey, the authors reported an average hurdle rate, which is the return required for capital investments, of 13.50%. The authors further reported the average WACC, which includes the cost of debt, was 9.20% even though the expected market return was 6.50%.[74] As a result, I do not believe the Graham and Harvey surveys are a reasonable reflection of the expected MRP going forward.

Q. Do any of the surveys cited by Mr. Garrett provide support for your approach to estimating the current MRP?

A. Yes. As discussed in my Direct Testimony,[75] I calculated the *ex-ante* MRP in a similar manner to a study by Pablo Fernandez, *et al* (cited by Mr. Garrett), using the market capitalization weighted Constant Growth DCF calculation on the individual companies in the S&P 500

[73] Source: Morningstar, Inc., 2020 SBBI Yearbook, Appendix A-1; http://www.cfosurvey.org (one-year return estimates as of fourth quarter of the previous year). Note, Graham and Harvey publish the Duke CFO survey.

[74] *See*, Duke/CFO Magazine Global Business Outlook survey – U.S., Third Quarter 2017.

[75] Direct Testimony of Dylan W. D'Ascendis, at 29, 31.

Index.[76]

Q. Is there academic literature that supports the conclusion that MRPs using surveys are not widely used by practitioners?

A. Yes. Dr. Damodaran, who was cited several times by Mr. Garrett throughout his testimony, states the following about the applicability of survey MRPs:

> While survey premiums have become more accessible, very few practitioners seem to be inclined to use the numbers from these surveys in computations and there are several reasons for this reluctance:
>
> 1. Survey risk premiums are responsive to recent stock prices movements, with survey numbers generally increasing after bullish periods and decreasing after market decline. Thus, the peaks in the SIA survey premium of individual investors occurred in the bull market of 1999, and the more moderate premiums of 2003 and 2004 occurred after the market collapse in 2000 and 2001.
> 2. Survey premiums are sensitive not only to whom the question is directed at but how the question is asked. For instance, individual investors seem to have higher (and more volatile) expected returns on equity than institutional investors and the survey numbers vary depending upon the framing of the question.[footnote omitted]
> 3. In keeping with other surveys that show differences across sub-groups, the premium seems to vary depending on who gets surveyed. Kaustia, Lehtoranta and Puttonen (2011) surveyed 1,465 Finnish investment advisors and note that not only are male advisors more likely to provide an estimate but that their estimated premiums are roughly 2% lower than those obtained from female advisors, after controlling for experience, education and other factors.[footnote omitted]
> 4. Studies that have looked at the efficacy of survey premiums indicate that if they have any predictive power, it is in the wrong direction. Fisher and Statman (2000) document the negative relationship between investor sentiment (individual and institutional) and stock returns.[footnote omitted] In other words, investors becoming more optimistic (and demanding a larger premium) is more likely to be a

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[76] *See*, Pablo Fernandez, Alberto Ortiz, and Isabel Fernandez Acín, *Market Risk Premium used in 71 countries in 2016: a survey with 6,932 answers*, IESE Business School, May 9, 2016, at 10. Specifically, the study states:

> [t]he [implied equity premium] is the implicit [required equity premium] used in the valuation of a stock (or market index) that matches the current market price. The most widely used model to calculate the [implied equity premium] is the dividend discount model: the current price (P_0) is the present value of expected dividends discounted at the required rate of return (K_e). If d_1 is the dividend per share expected to be received in year 1, and g the expected long-term growth rate in dividends per share:
>
> $P_0 = d_1 / (Ke – g)$, which implies:
>
> [implied equity premium] $= d_1/P_0 + g - R_f$

precursor to poor (rather than good) market returns.

As technology aids the process, the number and sophistication of surveys of both individual and institutional investors will also increase. However, it is also likely that these survey premiums will be more reflections of the recent past rather than good forecasts of the future.[77]

Q. Please now describe the method by which Mr. Garrett calculated his third estimate, the implied MRP.

A. As Mr. Garrett points out, his method develops the Internal Rate of Return that sets equal the current value of the market index to the projected value of cash flows associated with owning the market index.[78] Mr. Garrett observes that Dr. Damodaran "promotes the implied ERP method."[79] Although there are some differences, Mr. Garrett's approach is similar to the model Dr. Damodaran provides on his website.[80]

Mr. Garrett's method, which is a two-stage form of the DCF model, calculates the present value of cash flows over the five-year initial period, together with the terminal price (based on the Gordon Model[81]), to be received in the last (*i.e.*, fifth) year. The model's principal inputs include the following assumptions:

- Over the coming five years, the S&P 500 Index (the "Index") will appreciate at a rate equal to the compound growth rate in "Operating Earnings" from 2014 through 2019;
- Cash flows associated with owning the Index will be equal to the historical average Earnings, Dividends, and Buyback yields, applied to the projected Index value each year; and

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77 Aswath Damodaran, Stern School of Business, *Equity Risk Determinants, Estimation and Implications – The 2020 Edition*, Updated March 2020, at 26-27.

78 Direct Testimony of David J. Garrett, at 58 – 60.

79 *Ibid*., at 60.

80 *See*, http://pages.stern.nyu.edu/~adamodar.

81 Exhibit DJG-9.

- Beginning in the terminal year, the Index will appreciate, in perpetuity, at a rate equal to the 30-day average yield on 30-year Treasury securities, as of October 28, 2020.[82]

As discussed below, reasonable changes to those assumptions have a considerable effect on Mr. Garrett's calculated expected market return.

Q. Do you have any observations regarding Mr. Garrett's assumed first-stage growth rate?

A. Yes. Mr. Garrett's 5.37% growth rate relates to growth in operating earnings, and does not reflect capital appreciation, growth in dividends, or buy-backs.[83] In addition, if Mr. Garrett's position is that historical growth rates are meant to reflect expected future growth, they should reflect year-to-year variation (that is, uncertainty). That is best accomplished using the arithmetic mean. I therefore calculated the average growth (arithmetic mean) for the four metrics included in Mr. Garrett's exhibit. The average growth rate, 7.35%, produces an estimated market return of about 7.98%,[84] which is still well below historical experience.

Q. Why did the market return increase by only 51 basis points (from 7.47% to 7.98%) when the first-stage growth rate increased by 198 basis points (from 5.37% to 7.35%)?

A. Because Mr. Garrett's model assumes the first stage lasts for five years (and the terminal stage is perpetual), the results are sensitive to changes in the assumed terminal growth rate. To put that effect in perspective, the terminal value (which is directly related to the terminal growth rate) represents approximately 76.59% of the "Intrinsic Value" in Mr. Garrett's analysis.[85]

Q. How did Mr. Garrett develop his assumed terminal growth rate?

A. The terminal growth rate represents investors' expectations of the rate at which the broad stock

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82 Exhibits DJG-7 and DJG-9. The model also assumes that all payments are received at year-end, rather than during the year. That assumption also tends to under-state the Implied Market Risk Premium.

83 Exhibit DJG-9. Whereas the compound average growth rate in operating earnings was 5.37%, dividends and buybacks grew by 6.74% and 5.66%, respectively.

84 Exhibit DWD-3, Schedule 3, page 2.

85 Exhibit DWD-3, Schedule 3. Please note that regardless of the assumed first and terminal-stage growth rates, the terminal stage consistently represents approximately 76.00% of the Intrinsic Value.

market will grow, in perpetuity, beginning in the terminal year. Mr. Garrett assumes terminal growth is best measured by the average yield on 30-year Treasury securities over the 30 days ended October 28, 2020. That is, Mr. Garrett assumes the average 30-year Treasury yield between September 2020 and October 2020 is the best measure of expected earnings growth beginning five years from now and extending indefinitely into the future.

Q. Do you agree with Mr. Garrett's assumption?

A. No, I do not. I recognize Mr. Garrett followed the approach described in Dr. Damodaran's method, which Dr. Damodaran refers to as a "default" assumption.[86] In terms of historical experience, over the long-term the broad economy has grown at a long-term compound average growth rate of approximately 6.09%.[87] Considered from another perspective, Duff & Phelps reports the long-term rate of capital appreciation on Large Company stocks to be 7.90%.[88] Mr. Garrett's model assumes, however, that the market index will grow by less than one-half that amount, 2.37%, over the coming four years.[89]

Mr. Garrett has not explained why growth beginning five years in the future, and extending in perpetuity, will be less than one-half of long-term historical growth. From a somewhat different perspective, assuming long-term inflation will be approximately 2.00%[90] implies perpetual real growth will be approximately -0.48%.[91] Again, Mr. Garrett assumes in the long run, real growth will in fact be negative in perpetuity. Nowhere in his testimony has Mr. Garrett explained the fundamental, systemic changes that would so dramatically reduce long-term economic growth, or why they are best measured by the long-term Treasury yield

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86 *See*, http://pages.stern.nyu.edu/~adamodar.

87 Source: Bureau of Economic Analysis for the years 1929 to 2019. https://www.bea.gov/data/gdp/gross-domestic-product

88 Duff & Phelps, 2020 SBBI® Yearbook, 6-17.

89 Exhibit DJG-9. (3724/3391)^(1/4)- 1 = 2.37%.

90 For example, in line with the Federal Reserve's target average rate of inflation. *See also*, Exhibit DJG-5.

91 -0.48% = [(1.0151/1.02)-1]. Please note that the long-term historical average rate of inflation, measured by the difference between real and nominal GDP growth, has been approximately 2.79%, which would also imply perpetual negative real growth.

over 30 days between September 2020 to October 2020.

Further, research by the Federal Reserve Bank of San Francisco calls into question the relationship between interest rates and macroeconomic growth. As the authors noted, "[o]ver the past three decades, it appears that private forecasters have incorporated essentially no link between potential growth and the natural rate of interest: The two data series have a zero correlation."[92]

Q. Please briefly summarize your response to Mr. Garrett's Implied Equity Risk Premium calculation.

A. Mr. Garrett's calculation is based on a series of questionable assumptions, to which a small set of very reasonable adjustments produces a market return estimate more consistent with (yet still below) the historical experience he considers relevant. Although the revised results still produce ROE estimates far below any reasonable measure, they do point out the sensitive nature of Mr. Garrett's analyses, and the tenuous nature of the conclusions he draws from them.

Q. Please summarize Mr. Garrett's concerns with the application of a historical average Equity Risk Premium.

A. Mr. Garrett notes that although a historical ERP is "convenient and easy to calculate," there is evidence that a "forward-looking ERP is *actually* lower than the historical ERP."[93]

Q. Are there studies that show that the long-term arithmetic mean is a good predictor of the next value in a random string of data (*e.g.* market returns)?

A. Yes. John Y. Campbell of Harvard University states: "When returns are serially uncorrelated, the arithmetic average represents the best forecast of future return in any randomly selected future year."[94]. As shown on pages 6-14 and 6-15 of SBBI – 2020, returns on large stocks and

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92 FRBSF Economic Letter, *Does Slower Growth Imply Lower Interest Rates?*, November 10, 2014, at 3.

93 Direct Testimony of David J. Garrett, at 56.

94 Campbell, John Y., *Forecasting US Equity Returns in the 21st Century*, July 2001.

equity risk premiums have serial correlations of 0.00 and 0.01, respectively, showing serial uncorrelation.

Additionally, in SBBI – 2020, regarding the use of the arithmetic mean, Duff & Phelps state:

> The equity risk premium data presented in this book are arithmetic average risk premiums as opposed to geometric average risk premiums. The arithmetic average equity risk premium can be demonstrated to be the most appropriate when discounting cash flows. For use as he expected equity risk premium in either the CAPM or the building-block approach, the arithmetic mean or the simple difference of the arithmetic means of stock market returns and riskless rates is the relevant number. This is because both the CAPM and the building-block approach are additive models, in which the cost of capital is the sum of its parts.[95]

Therefore, the long-term historical arithmetic average MRP is useful, when calculated correctly, in the application of the CAPM.

Q. Does Mr. Garrett employ an Empirical CAPM in his CAPM analysis?

A. No, he does not. Mr. Garrett fails to consider the ECAPM, despite the fact that numerous tests of the CAPM have confirmed that the empirical Security Market Line ("SML") described by the traditional CAPM is not as steeply sloped as the predicted SML, as described in my Direct Testimony.[96] Because of the empirical findings presented in my Direct Testimony, Mr. Garrett should have considered the ECAPM in his CAPM analysis.

Q. Please summarize your concerns with Mr. Garrett's CAPM analysis.

A. Mr. Garrett's CAPM analysis is flawed because he uses a historical risk-free rate and MRPs based on expected returns. Using flawed inputs, in combination with not employing the ECAPM, produces unrealistic results. Given Mr. Garrett's seeming dismissal of the results of his CAPM, the Commission should likewise dismiss Mr. Garrett's CAPM analysis.

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95 SBBI – 2020, at 10-22, 10-23.

96 Direct Testimony of Dylan W. D'Ascendis, at 32.

G. <u>Refusal to Consider a Small Size Premium in his ROE Recommendation</u>

Q. Did Mr. Garrett address the issue of a size premium in his testimony?

A. Yes. Mr. Garrett lists several reasons why he has not included a size premium in his recommendation, including: (1) numerous studies show that "small cap stocks do not consistently outperform large-cap stocks,"[97] and (2) that the "discovery of the size effect phenomenon likely caused its own demise."[98]

Q. Is Mr. Garrett's review of the size premium correct?

A. No, it is not. First, Mr. Garrett notes that after 1983, U.S. small-cap stocks underperformed large-cap stocks.[99] The issue with Mr. Garrett's position is that the size premium measures the increased risk associated with a company's smaller size; Mr. Garrett is only focused on returns. As I discussed in my Direct Testimony, smaller companies face increased business risk as they are less equipped to cope with significant events that affect sales, revenues, and earnings, as the loss of a few larger customers will have a greater effect on a small company than a larger company.[100]

This is further evident when we consider that increasing capital costs (*i.e.* risk) for one set of securities will put downward pressure on those securities as investors transition to securities with lower risk. Under this premise, the underperformance is directly tied to the increase in risk. As such, Mr. Garrett's premise that smaller companies' underperformance indicates a reduction of risk is in fact the opposite – underperformance indicates an increasing level of risk.

Q. Have you performed a study comparing the size of UIF with the average proxy company in Mr. Garrett's proxy group?

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97 Direct Testimony of David J. Garrett, at 68.
98 *Ibid*., at 69.
99 *Ibid*., at 68.
100 Direct Testimony of Dylan W. D'Ascendis, at 38 – 39.

A. Yes. Duff & Phelps' ("D&P") 2017 Valuation Handbook – U.S. Guide to Cost of Capital: Cost of Capital Navigator ("D&P 2017") presents a Size Study based on the relationship of various measures of size and return. Relative to the relationship between average annual return and the various measures of size, D&P state:

> **The size of a company is one of the most important risk elements to consider when developing cost of equity estimates for use in valuing** a firm. Traditionally, researchers have used market value of equity (*i.e.,* "market capitalization" or simply "market cap") as a measure of size in conducting historical rate of return research. For example, the Center for Research in Security Prices (CRSP) "deciles" are developed by sorting U.S. companies by market capitalization. Another example is the Fama-French "Small minus Big" (SMB) series, which is the difference in return of "small" stocks minus "big" (*i.e.*, large) stocks, as defined by market capitalization. (emphasis added) [101]

Exhibit DWD-3, Schedule 4 contains indicated small size risk premiums using various measures of size as described by D&P 2017.[102] The measures are listed below:

- Book Value of Common Equity;
- Five-Year Average Net Income;
- Total Assets;
- Five Year Average EBITDA;
- Total Sales; and
- Number of Employees.

As shown on Exhibit DWD-3, Schedule 4, in all measures, UIF is determined to be smaller than the average water company in Mr. Garrett's proxy group with associated size premiums ranging from 1.13% to 3.43%. In view of these indicated size premiums, an upward size adjustment of 1.00% to the indicated cost of common equity is extremely conservative.

Q. Have you performed an additional study for utility companies that links size and risk?

A. Yes, I have. I performed a study on whether the size effect is applicable to utilities. The study

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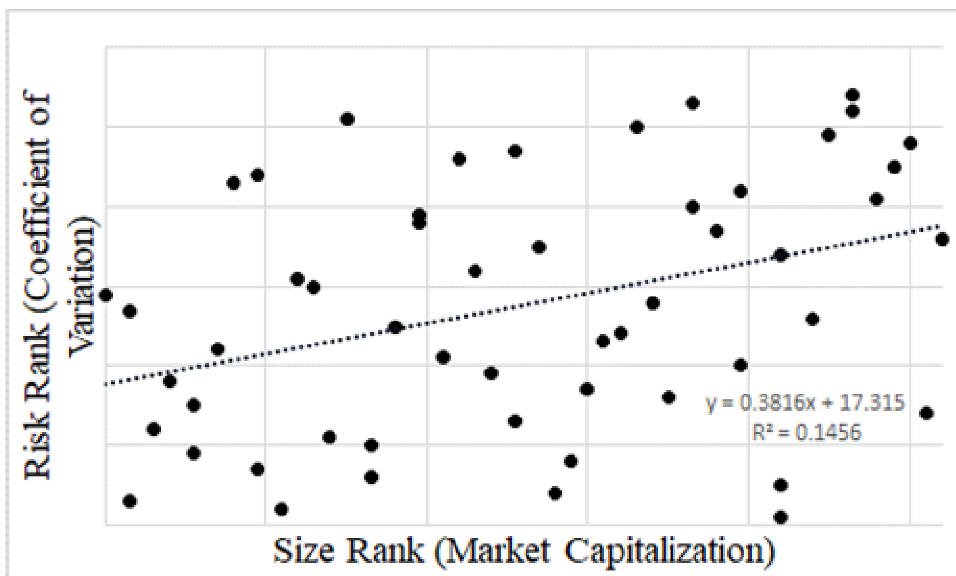
[101] D&P-2017, at p. 10-2.
[102] *Ibid.*

included the universe of electric, gas, and water companies included in *Value Line Standard Edition*. From each of the utilities' *Value Line Ratings & Reports*, I calculated the ten-year coefficients of variation ("CoV")[103] of net profit (a measure of risk) and current market capitalization (a measure of size) for each company. After ranking the companies by size (largest to smallest) and risk (least risky to most risky), I made a scatter plot of the data, as shown on Chart 2, below:

Chart 2:
Relationship Between Size and Risk for the *Value Line* Universe of Utility Companies



As shown in Chart 2 above, as company size decreases (increasing size rank), the CoV increases, linking size and risk for utilities, which is significant at 95.0% confidence level.

Q. Are you aware of academic articles supporting the applicability of a size premium?

A. Yes. An article by Michael A. Paschall, ASA, CFA, and George B. Hawkins ASA, CFA, *Do Smaller Companies Warrant a Higher Discount Rate for Risk?* also supports the applicability of a size premium. As the article makes clear, all else equal, size is a risk factor which must be taken into account when setting the cost of capital or capitalization (discount) rate. Paschall

[103] The coefficient of variation is used by investors and economists to determine volatility.

and Hawkins state in their conclusion as follows:

> The current challenge to traditional thinking about a small stock premium is a very real and potentially troublesome issue. The challenge comes from bright and articulate people and has already been incorporated into some court cases, providing further ammunition for the IRS. Failing to consider the additional risk associated with most smaller companies, however, is to fail to acknowledge reality. Measured properly, small company stocks have proven to be more risky over a long period of time than have larger company stocks. This makes sense due to the various advantages that larger companies have over smaller companies. Investors looking to purchase a riskier company will require a greater return on investment to compensate for that risk. There are numerous other risks affecting a particular company, yet the use of a size premium is one way to quantify the risk associated with smaller companies.[104]

Hence, Paschall and Hawkins corroborate the need for a small size adjustment, all else equal. Consistent with the financial principle of risk and return discussed previously, upward adjustment must be applied to the indicated cost of common equity derived from the cost of equity models of the proxy groups used in this proceeding.

Q. Mr. Garrett points to a passage published in 2015 by Ibbotson that states that the size premium no longer exists. What is your response?

A. Despite their findings, Duff & Phelps (which now owns Ibbotson) continues to publish data on their findings on the presence of a size premium in the market and has provided additional measures of the size premium, as noted above. If Duff & Phelps found that no size premium ceased to exist, it would not continue to update and publish this information.

Q. Finally, does the Commission's ROE Formula allow for adjustments for increased risk of small utilities?

A. Yes, it does. As stated at page 42 of my Direct Testimony, the Commission's ROE Formula allows a 50-basis point premium for private placement and a size premium of 50 basis points stating "smaller companies are considered by investors to be more risky than larger

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104 Michael A. Paschall, ASA, CFA and George B. Hawkins ASA, CFA, *Do Smaller Companies Warrant a Higher Discount Rate for Risk?*, CCH Business Valuation Alert, Vol. 1, Issue No. 2, December 1999.

companies."[105] In view of all of the above, my 1.00% size premium applicable to UIF is reasonable and conservative.

H. Response to Mr. Garrett's Critiques of Company Testimony

Q. Does Mr. Garrett have any critiques of your analyses presented in your Direct Testimony?

A. Yes, he does. Mr. Garrett's critiques of my Direct Testimony are: (1) my requested ROE is in excess of the investor-required return on the market; (2) my growth rates used in the DCF model exceed GDP growth; (3) my MRP is unreasonable because it is not in line with his MRP estimates; (4) my risk-free rate used in my CAPM is overestimated; (5) my use of a non-regulated proxy group; and (6) my inclusion of a small size premium is unnecessary. I have already addressed critiques (1), (2), (4), and (6) previously and will not address them here. I will discuss Mr. Garrett's remaining critiques in turn.

Q. Mr. Garrett states that your MRP is unreasonable in view of his measures of MRP as presented in his CAPM analysis.[106] Please respond.

A. I have discussed the inapplicability of Mr. Garrett's MRP estimates for cost of capital purposes previously in this Rebuttal Testimony and will not repeat that discussion here. Since Mr. Garrett's MRP measures are not valid MRPs, they cannot be comparable to my MRP estimates. Even though Mr. Garrett has presented no reliable evidence upon which to gauge the reasonableness of the MRP estimate, I will note that my estimate of 11.94% is consistent with actual realized ERPs. As shown in Chart 3, below, my estimate falls within the 58th percentile of historical MRPs.

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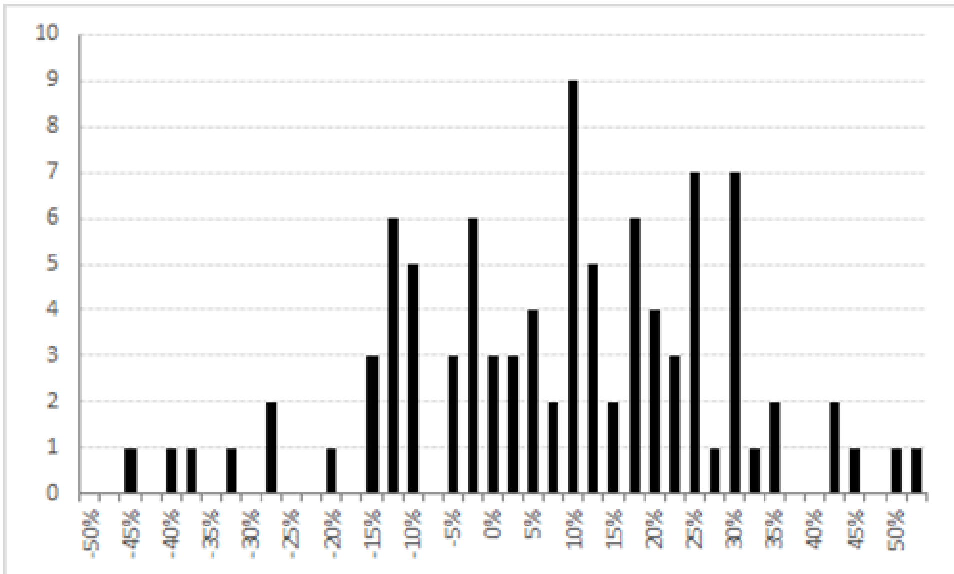
[105] Order No. PSC-2019-0267-PAA-WS.

[106] Direct Testimony of David J. Garrett, at 63 – 64.

<u>Chart 3:</u>
<u>Frequency Distribution of Observed Market Risk Premia, 1926 - 2019</u>[107]



Given all the above, my calculation of the MRPs in my CAPM and ECAPM analyses is reasonable in view of historical returns and is supported by financial literature. Thus, Mr. Garrett's concern should be dismissed.

Q. Please summarize Mr. Garrett's argument against using a non-price regulated proxy group similar in total risk to a utility proxy group to determine an indicated ROE for UIF in this proceeding.

A. Mr. Garrett finds there is no marginal benefit of running a CAPM or DCF model on a group of non-regulated, non-utility companies. Additionally, Mr. Garrett believes that competitive firms typically have higher levels of risk than utilities[108] and that, "a group of non-regulated, non-utility companies will not indicate a required return on investments that is *commensurate* with returns on investments of *corresponding* risk."[109]

Q. Do you agree with Mr. Garrett's reasoning?

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[107] Exhibit DWD-3, Schedule 5.
[108] Direct Testimony of David J. Garrett, at 66.
[109] *Ibid*., at 67. (emphasis in original)

A. No. Regarding Mr. Garrett's claim that there is no marginal benefit to running my non-price regulated analysis, this directly contradicts his own claim that "[i]t is preferable to use multiple models because the results of any one model may contain a degree of imprecision."[110] Because regulation is a substitute for competition, the application of cost of common equity models to comparable risk, non-regulated companies produces a marginal benefit that cannot be replicated using utility companies.

Q. Does Mr. Garrett discuss risk and relevance of risk for cost of capital purposes in his testimony?

A. Yes. In Section V of his direct testimony, Mr. Garrett discusses risk and return concepts in general. On page 29 of his direct testimony, Mr. Garrett states: "Market risk is the only type of risk that is rewarded by the market and is thus the primary type of risk the Commission should consider when determining the allowed return in this case."

Q. How does your selection criteria for your Non-Price Regulated Proxy Group fit into the above discussion?

A. Following Mr. Garrett's logic, given that unadjusted beta coefficients are measures of market risk (the primary measure of risk according to Mr. Garrett), and one of my screening criteria was to generate companies with similar unadjusted beta coefficients as the Utility Proxy Group, my Non-Price Regulated Proxy Group, by definition, would be comparable to the Utility Proxy Group.

Q. In addition to screening your Non-Price Regulated Proxy Group companies using unadjusted beta coefficients and standard errors of the regression, did you conduct

110 Ibid., at 23.

another study to show that the Utility Proxy Group and the Non-Price Regulated Group are similar in total risk?

A. Yes, I did. To further show similarity between the Utility and Non-Price Regulated Proxy Groups, I have analyzed the CoV of net profit for each group (as reported by *Value Line*) and the results of that study are shown on Exhibit DWD-3, Schedule 6. As shown, the mean and median CoV of net profit for the Non-Price Regulated Proxy Group are within the range of CoVs of net profit set by the Utility Proxy Group companies, which suggests that the volatility in net profit is similar between the Utility Proxy Group and the Non-Price Regulated Proxy Group.

Q. Does Mr. Garrett look to non-price regulated companies in any of his analyses?

A. Yes. In assessing the Company's capital structure, Mr. Garrett reviews the debt ratios of competitive industries.[111] The major mistake in Mr. Garrett's analysis is the same mistake he falsely accuses me of. In his comparisons of the capital structures of non-regulated industries to UIF, he does not evaluate the industries' market risk in comparison to UIF. If Mr. Garrett evaluated the market risk (*i.e.,* unadjusted beta coefficients) of those industries, he would have found that those industries are not comparable to utility companies like UIF. Using Mr. Garrett's own source, Dr. Damodaran, the average unadjusted beta coefficient of the industries that have debt ratios over 55% is 1.18, whereas the Utility (Water) unadjusted beta coefficient is 0.68.

Q. Please summarize your discussion regarding the use of non-price regulated proxy groups in cost of capital analyses for regulated utilities.

A. The use of non-price regulated proxy groups in cost of capital analyses for regulated utility companies should be considered by regulatory commissions as another tool in the tool kit to

[111] Direct Testimony of David J. Garrett, at 78.

determine the ROE for a utility, provided the non-price regulated proxy group is shown to be of comparable risk. The Non-Price Regulated Proxy Group used in my analyses was screened using measures of systematic and unsystematic risk, to show similar total risk. Mr. Garrett's non-price regulated industry study was not screened for any risk aside from financial risk, which, as stated previously, is not a proxy for total risk.

For these reasons, my Non-Price Regulated Proxy Group analyses should be considered by the Commission while Mr. Garrett's non-price regulated industry analyses should be rejected by the Commission.

V. SUMMARY AND CONCLUSIONS

Q. Should any or all the arguments made by Mr. Garrett persuade the Commission to lower the ROE it approves for UIF below your recommendation?

A. No, they should not. Based on the analyses discussed throughout my Rebuttal Testimony, and given the current capital market conditions, I continue to believe that an ROE of 11.75% continues to be a reasonable, although conservative, estimate of the Company's Cost of Equity. It will provide UIF with sufficient earnings to enable it to attract necessary new capital efficiently and at a reasonable cost.

Q. Does this conclude your Rebuttal Testimony?

A. Yes.

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application for increase in water and wastewater rates in Charlotte, Highlands, Lake, Lee, Marion, Orange, Pasco, Pinellas, Polk, and Seminole Counties by Utilities, Inc. of Florida.	))))))	Docket No. 20200139-WS

EXHIBIT (DWD-3) ______

OF

DYLAN D. D'ASCENDIS

on behalf of

Utilities, Inc. of Florida

Utilities, Inc. of Florida
Table of Contents to Exhibit DWD-3

Utilities, Inc of Florida
Calculation of Daily Returns and Annual Volatility
for the Proxy Group and the S&P 500

	American States Water Company		American Water Works Company, Inc		California Water Service Group		Essential Utilities, Inc		Middlsex Water Company		SJW Group		York Water Company		Proxy Group		DJU		XLU		DJIA		S&P 500	
	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return
1/31/2020	88.56		136.20		52.56		51.94		65.26		73.35		47.36				938.57		68.98		28256.03		3225.52	
2/3/2020	89.32	0.86%	136.52	0.23%	53.49	1.77%	53.73	3.45%	66.44	1.81%	73.73	0.52%	48.20	1.77%			940.67	0.22%	69.20	0.32%	28399.81	0.51%	3248.93	0.73%
2/4/2020	88.47	-0.95%	134.84	-1.23%	53.5	0.02%	52.99	-1.38%	66.57	0.20%	72.62	-1.51%	47.80	-0.83%			930.34	-1.10%	68.51	-1.00%	28807.63	1.44%	3297.59	1.50%
2/5/2020	89.18	0.80%	135.07	0.17%	53.86	0.67%	53.34	0.66%	67.46	1.34%	73.48	1.18%	48.44	1.34%			934.85	0.48%	68.79	0.41%	29290.85	1.68%	3334.69	1.13%
2/6/2020	89.83	0.73%	135.00	-0.05%	54.02	0.30%	53.2	-0.26%	67.97	0.76%	72.89	-0.80%	48.10	-0.70%			935.16	0.03%	68.81	0.03%	29379.77	0.30%	3345.78	0.33%
2/7/2020	90.28	0.50%	134.45	-0.41%	54.29	0.50%	53.22	0.04%	68.15	0.26%	72.49	-0.55%	48.25	0.31%			931.83	-0.36%	68.59	-0.32%	29102.51	-0.94%	3327.71	-0.54%
2/10/2020	91.08	0.89%	135.21	0.57%	54.97	1.25%	53.73	0.96%	68.72	0.84%	72.79	0.41%	48.85	1.24%			934.97	0.34%	68.85	0.38%	29276.82	0.60%	3352.09	0.73%
2/11/2020	91.05	-0.03%	135.34	0.10%	55.05	0.15%	53.27	-0.86%	67.71	-1.47%	72.27	-0.71%	48.11	-1.51%			938.48	0.38%	69.10	0.36%	29276.34	0.00%	3357.75	0.17%
2/12/2020	91.51	0.51%	135.70	0.27%	55.07	0.04%	53.17	-0.19%	68.14	0.64%	72.42	0.21%	48.59	1.00%			938.12	-0.04%	69.15	0.07%	29551.42	0.94%	3379.45	0.65%
2/13/2020	92.53	1.11%	136.95	0.92%	55.91	1.53%	53.18	0.02%	69.44	1.91%	73.31	1.23%	48.77	0.37%			947.38	0.99%	69.92	1.11%	29423.31	-0.43%	3373.94	-0.16%
2/14/2020	93.85	1.43%	139.32	1.73%	56.77	1.54%	53.72	1.02%	69.26	-0.26%	73.55	0.33%	48.50	-0.55%			955.35	0.84%	70.39	0.67%	29398.08	-0.09%	3380.16	0.18%
2/18/2020	93.64	-0.22%	139.26	-0.04%	56.8	0.05%	54.07	0.65%	69.45	0.27%	73.40	-0.20%	48.68	0.37%			960.89	0.58%	70.98	0.84%	29232.19	-0.56%	3370.29	-0.29%
2/19/2020	91.50	-2.29%	138.70	-0.40%	55.52	-2.25%	53.62	-0.83%	67.88	-2.26%	71.81	-2.17%	48.60	-0.16%			950.01	-1.13%	70.21	-1.08%	29348.03	0.40%	3386.15	0.47%
2/20/2020	90.23	-1.39%	137.30	-1.01%	54.48	-1.87%	53.5	-0.22%	67.61	-0.40%	71.54	-0.38%	48.70	0.21%			952.4	0.25%	70.46	0.36%	29219.98	-0.44%	3373.23	-0.38%
2/21/2020	90.16	-0.08%	137.77	0.34%	54.5	0.04%	53.06	-0.82%	68.26	0.96%	71.74	0.28%	48.72	0.04%			948.74	-0.38%	70.33	-0.18%	28992.41	-0.78%	3337.75	-1.05%
2/24/2020	89.32	-0.93%	136.53	-0.90%	54.27	-0.42%	51.67	-2.62%	66.84	-2.08%	71.46	-0.39%	47.05	-3.43%			935.91	-1.35%	69.51	-1.17%	27960.8	-3.56%	3225.89	-3.35%
2/25/2020	87.67	-1.85%	133.09	-2.52%	52.89	-2.54%	50.43	-2.40%	64.84	-2.99%	69.16	-3.22%	46.22	-1.76%			915.77	-2.15%	68.05	-2.10%	27081.36	-3.15%	3128.21	-3.03%
2/26/2020	87.31	-0.41%	133.04	-0.04%	52.67	-0.42%	50.31	-0.24%	65.53	1.06%	69.20	0.06%	47.18	2.08%			906.97	-0.96%	67.36	-1.01%	26957.59	-0.46%	3116.39	-0.38%
2/27/2020	81.99	-6.09%	127.78	-3.95%	49.92	-5.22%	46.34	-7.89%	61.90	-5.54%	64.36	-6.99%	43.18	-8.48%			865.47	-4.58%	64.33	-4.50%	25766.64	-4.42%	2978.76	-4.42%
2/28/2020	76.59	-6.59%	123.66	-3.22%	47.96	-3.93%	43.01	-7.19%	59.47	-3.93%	61.18	-4.94%	42.29	-2.06%			839.96	-2.95%	62.18	-3.34%	25409.36	-1.39%	2954.22	-0.82%
3/2/2020	80.49	5.09%	130.84	5.81%	50.34	4.96%	45.44	5.65%	64.43	8.34%	63.10	3.14%	45.68	8.02%			886.52	5.54%	65.84	5.89%	26703.32	5.09%	3090.23	4.60%
3/3/2020	81.16	0.83%	131.42	0.44%	51.41	2.13%	45.31	-0.29%	63.26	-1.82%	63.75	1.03%	44.44	-2.71%			877.25	-1.05%	65.03	-1.23%	25917.41	-2.94%	3003.37	-2.81%
3/4/2020	87.34	7.61%	140.31	6.76%	54.55	6.11%	48.45	6.93%	66.47	5.07%	67.67	6.15%	46.79	5.29%			926.14	5.57%	68.72	5.67%	27090.86	4.53%	3130.12	4.22%
3/5/2020	87.13	-0.24%	139.36	-0.68%	53.99	-1.03%	47.57	-1.82%	65.67	-1.20%	66.27	-2.07%	46.80	0.02%			908.14	-1.94%	67.66	-1.54%	26121.28	-3.58%	3023.94	-3.39%
3/6/2020	87.78	0.75%	141.00	1.18%	54.37	0.70%	46.67	-1.89%	67.61	2.95%	69.33	4.62%	48.78	4.23%			901.7	-0.71%	67.11	-0.81%	25864.78	-0.98%	2972.37	-1.71%
3/9/2020	82.36	-6.17%	137.19	-2.70%	52.15	-4.08%	44.05	-5.61%	64.08	-5.22%	65.49	-5.54%	45.92	-5.86%			852.8	-5.42%	63.46	-5.44%	23851.02	-7.79%	2746.56	-7.60%
3/10/2020	83.47	1.35%	137.71	0.38%	52.38	0.44%	44.41	0.82%	65.08	1.56%	66.10	0.93%	45.55	-0.81%			860.03	0.85%	64.05	0.93%	25018.16	4.89%	2882.23	4.94%
3/11/2020	79.80	-4.40%	129.67	-5.84%	48.41	-7.58%	40.03	-9.86%	58.52	-10.08%	61.08	-7.59%	40.62	-10.82%			812.44	-5.53%	60.83	-5.03%	23553.22	-5.86%	2741.38	-4.89%
3/12/2020	71.88	-9.92%	117.97	-9.02%	44.62	-7.83%	36.7	-8.32%	53.61	-8.39%	58.33	-4.50%	36.19	-10.91%			723.88	-10.90%	54.69	-10.09%	21200.62	-9.99%	2480.64	-9.51%
3/13/2020	76.76	6.79%	128.29	8.75%	45.79	2.62%	38.43	4.71%	55.54	3.60%	62.21	6.65%	40.41	11.66%			762.6	5.35%	57.67	5.45%	23185.62	9.36%	2711.02	9.29%
3/16/2020	65.41	-14.79%	118.81	-7.39%	42.85	-6.42%	33.47	-12.91%	49.45	-10.97%	50.96	-18.08%	35.60	-11.90%			678.03	-11.09%	51.12	-11.36%	20188.52	-12.93%	2386.13	-11.98%
3/17/2020	78.43	19.91%	138.50	16.57%	55.43	29.36%	40.04	19.63%	61.35	24.06%	64.37	26.31%	44.13	23.96%			769.69	13.52%	57.66	12.79%	21237.38	5.20%	2529.19	6.00%
3/18/2020	93.03	18.62%	130.08	-6.08%	54.12	-2.36%	40.59	1.37%	56.31	-8.22%	57.40	-10.83%	40.20	-8.91%			737.25	-4.21%	55.15	-4.35%	19898.92	-6.30%	2398.10	-5.18%
3/19/2020	92.40	-0.68%	115.12	-11.50%	55.45	2.46%	39.52	-2.64%	57.39	1.92%	58.42	1.78%	39.35	-2.11%			695.92	-5.61%	51.94	-5.82%	20087.19	0.95%	2409.39	0.47%
3/20/2020	86.00	-6.93%	100.69	-12.53%	53	-4.42%	34.92	-11.64%	56.86	-0.92%	52.67	-9.84%	36.93	-6.15%			646.13	-7.15%	47.82	-7.93%	19173.98	-4.55%	2304.92	-4.34%
3/23/2020	74.90	-12.91%	97.07	-3.60%	47.33	-10.70%	32.65	-6.50%	54.88	-3.48%	49.48	-6.06%	37.00	0.19%			610.89	-5.45%	44.93	-6.04%	18591.93	-3.04%	2237.40	-2.93%
3/24/2020	79.61	6.29%	103.95	7.09%	48.03	1.48%	36.59	12.07%	56.39	2.75%	54.72	10.59%	39.66	7.19%			673.89	10.31%	49.76	10.75%	20704.91	11.37%	2447.33	9.38%
3/25/2020	77.02	-3.25%	110.45	6.25%	45.66	-4.93%	38.52	5.27%	53.82	-4.56%	52.02	-4.93%	37.30	-5.95%			697.96	3.57%	51.03	2.55%	21200.55	2.39%	2475.56	1.15%
3/26/2020	80.99	5.15%	119.32	8.03%	48.74	6.75%	42.25	9.68%	55.65	3.40%	57.22	10.00%	42.53	14.02%			757.92	8.59%	55.38	8.52%	22552.17	6.38%	2630.07	6.24%
3/27/2020	80.98	-0.01%	120.77	1.22%	47.96	-1.60%	40.42	-4.33%	57.23	2.84%	55.87	-2.36%	42.63	0.24%			758.93	0.13%	55.68	0.54%	21636.78	-4.06%	2541.47	-3.37%
3/30/2020	84.60	4.47%	126.72	4.93%	52.32	9.09%	43.05	6.51%	61.47	7.41%	59.78	7.00%	46.77	9.71%			785.14	3.45%	57.74	3.70%	22327.48	3.19%	2626.65	3.35%
3/31/2020	81.74	-3.38%	119.56	-5.65%	50.32	-3.82%	40.7	-5.46%	60.12	-2.20%	57.77	-3.36%	43.46	-7.08%			756.16	-3.69%	55.41	-4.04%	21917.16	-1.84%	2584.59	-1.60%
4/1/2020	74.93	-8.33%	112.80	-5.65%	45.01	-10.55%	38.62	-5.11%	54.24	-9.78%	53.75	-6.96%	38.90	-10.49%			708.04	-6.36%	52.08	-6.01%	20943.51	-4.44%	2470.50	-4.41%
4/2/2020	77.44	3.35%	117.64	4.29%	46.01	2.22%	40.1	3.83%	57.64	6.27%	55.74	3.70%	41.32	6.22%			729.36	3.01%	53.71	3.13%	21413.44	2.24%	2526.90	2.28%
4/3/2020	78.57	1.46%	113.32	-3.67%	46.26	0.54%	38.5	-3.99%	56.66	-1.70%	54.91	-1.49%	40.09	-2.98%			706.01	-3.20%	51.79	-3.57%	21052.53	-1.69%	2488.65	-1.51%
4/6/2020	85.06	8.26%	121.52	7.24%	50.77	9.75%	42.26	9.77%	60.88	7.45%	61.01	11.11%	43.74	9.10%			758.06	7.37%	55.79	7.72%	22679.99	7.73%	2663.68	7.03%
4/7/2020	80.11	-5.82%	118.27	-2.67%	49.15	-3.19%	40.78	-3.50%	58.28	-4.27%	57.02	-6.54%	40.17	-8.16%			750.81	-0.96%	55.09	-1.25%	22653.86	-0.12%	2659.41	-0.16%
4/8/2020	83.99	4.84%	125.35	5.99%	50.51	2.77%	42.67	4.63%	60.56	3.91%	58.69	2.93%	40.56	0.97%			789.15	5.11%	58.09	5.45%	23433.57	3.44%	2749.98	3.41%
4/9/2020	87.97	4.74%	131.75	5.11%	54.05	7.01%	44.61	4.55%	62.94	3.93%	61.97	5.59%	43.06	6.16%			827.83	4.90%	60.83	4.72%	23719.37	1.22%	2789.82	1.45%
4/13/2020	86.42	-1.76%	127.24	-3.42%	52.87	-2.18%	42.8	-4.06%	62.37	-0.91%	62.66	1.11%	42.39	-1.56%			801.39	-3.19%	58.90	-3.17%	23390.77	-1.39%	2761.63	-1.01%
4/14/2020	90.10	4.26%	133.61	5.01%	54.45	2.99%	44.3	3.50%	63.30	1.49%	64.37	2.73%	43.31	2.17%			811.46	1.26%	60.63	2.94%	23686.11	1.26%	2846.06	3.06%
4/15/2020	86.11	-4.43%	129.21	-3.29%	51.54	-5.34%	42	-5.19%	59.00	-6.79%	59.25	-7.95%	41.64	-3.86%			796.95	-1.79%	58.63	-3.30%	23504.35	-0.77%	2783.36	-2.20%
4/16/2020	86.16	0.06%	131.24	1.57%	52.17	1.22%	42.83	1.98%	60.29	2.19%	59.07	-0.30%	41.94	0.72%			797.54	0.07%	58.64	0.02%	23537.68	0.14%	2799.55	0.58%
4/17/2020	89.09	3.40%	131.76	0.40%	53.63	2.80%	43.36	1.24%	61.36	1.77%	60.68	2.73%	44.00	4.91%			823.98	3.32%	60.53	3.22%	24242.49	2.99%	2874.56	2.68%
4/20/2020	83.19	-6.62%	126.46	-4.02%	50.03	-6.71%	42.24	-2.58%	58.52	-4.63%	58.73	-3.21%	42.12	-4.27%			794.85	-3.54%	58.24	-3.78%	23650.44	-2.44%	2823.16	-1.79%
4/21/2020	82.27	-1.11%	125.43	-0.81%	49.27	-1.52%	41.29	-2.25%	57.00	-2.60%	58.80	0.12%	41.40	-1.71%			780.99	-1.74%	57.28	-1.65%	23018.88	-2.67%	2736.56	-3.07%
4/22/2020	83.71	1.75%	127.89	1.96%	50.12	1.73%	42.45	2.81%	58.77	3.11%	60.25	2.47%	42.01	1.47%			804.41	3.00%	58.95	2.92%	23475.82	1.99%	2799.31	2.29%
4/23/2020	81.84	-2.23%	124.68	-2.51%	49.03	-2.17%	42.62	0.40%	58.66	-0.19%	57.81	-4.05%	41.85	-0.38%			790.75	-1.70%	57.96	-1.68%	23515.26	0.17%	2797.80	-0.05%
4/24/2020	82.19	0.43%	125.01	0.26%	49	-0.06%	43.68	2.49%	59.10	0.75%	59.60	3.10%	41.83	-0.05%			795.09	0.55%	58.32	0.62%	23775.27	1.11%	2836.74	1.39%
4/27/2020	82.00	-0.23%	125.75	0.59%	48.64	-0.73%	44	0.73%	59.20	0.17%	60.92	2.21%	42.34	1.22%			805.8	1.35%	58.93	1.05%	24133.78	1.51%	2878.48	1.47%
4/28/2020	82.97	1.18%	126.52	0.61%	49.73	2.24%	43.86	-0.32%	60.50	2.20%	59.78	-1.87%	42.36	0.05%			804.93	-0.11%	59.15	0.37%	24101.55	-0.13%	2863.39	-0.52%
4/29/2020	83.83	1.04%	125.72	-0.63%	50.55	1.65%	43.29	-1.30%	62.75	3.72%	62.46	4.48%	42.96	1.42%			798.48	-0.80%	58.61	-0.91%	24633.86	2.21%	2939.51	2.66%
4/30/2020	79.37	-5.32%	121.69	-3.21%	44.92	-11.14%	41.79	-3.47%	60.30	-3.90%	59.53	-4.69%	40.32	-6.15%			778.29	-2.53%	57.26	-2.30%	24345.72	-1.17%	2912.43	-0.92%
5/1/2020	77.77	-2.02%	119.20	-2.05%	46.28	3.03%	40.39	-3.35%	60.01	-0.48%	59.77	0.40%	40.57	0.62%			759.08	-2.47%	55.88	-2.41%	23723.69	-2.55%	2830.71	-2.81%
5/4/2020	77.15	-0.80%	121.46	1.90%	45.62	-1.43%	41.22	2.05%	61.04	1.72%	58.80	-1.62%	40.54	-0.07%			767.37	1.09%	56.30	0.75%	23749.76	0.11%	2842.74	0.43%
5/5/2020	77.96	1.05%	123.43	1.62%	46.39	1.69%	41.97	1.82%	61.81	1.26%	58.24	-0.95%	41.23	1.70%			773.21	0.76%	56.76	0.82%	23883.09	0.56%	2868.44	0.90%
5/6/2020	74.18	-4.85%	117.78	-4.58%	44.63	-3.79%	40.67	-3.10%	61.11	-1.13%	57.03	-2.08%	41.06	-0.41%			746.35	-3.47%	54.83	-3.40%	23664.64	-0.91%	2848.42	-0.70%
5/7/2020	74.04	-0.19%	119.08	1.10%	45.12	1.10%	40.53	-0.34%	61.88	1.26%	58.27	2.17%	41.20	0.34%			751.97	0.75%	55.05	0.40%	23875.89	0.89%	2881.19	1.15%
5/8/2020	75.74	2.30%	118.03	-0.88%	45.36	0.53%	40.3	-0.57%	62.10	0.36%	58.74	0.81%	42.90	4.13%			764.11	1.61%	56.16	2.02%	24331.32	1.91%	2929.80	1.69%
5/11/2020	76.67	1.23%	119.49	1.24%	45.24	-0.26%	40.16	-0.35%	61.77	-0.53%	58.21	-0.90%	42.53	-0.86%			761.83	-0.30%	55.92	-0.43%	24221.99	-0.45%	2930.32	0.02%
5/12/2020	75.29	-1.80%	117.07	-2.03%	43.85	-3.07%	39.22	-2.34%	61.15	-1.00%	55.86	-4.04%	41.56	-2.28%			753.3	-1.12%	55.43	-0.88%	23764.78	-1.89%	2870.12	-2.05%

	American States Water Company		American Water Works Company, Inc		California Water Service Group		Essential Utilities, Inc		Middlsex Water Company		SJW Group		York Water Company		Proxy Group		DJU		XLU		DJIA		S&P 500	
	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return
5/13/2020	76.05	1.01%	116.51	-0.48%	43.87	0.05%	38.81	-1.05%	61.25	0.16%	53.98	-3.37%	41.53	-0.07%			747.54	-0.76%	54.96	-0.85%	23247.97	-2.17%	2820.00	-1.75%
5/14/2020	75.68	-0.49%	116.27	-0.21%	43.39	-1.09%	39.32	1.31%	59.62	-2.66%	53.11	-1.61%	40.98	-1.32%			754.78	0.97%	55.55	1.07%	23625.34	1.62%	2852.50	1.15%
5/15/2020	74.96	-0.95%	117.76	1.28%	43.14	-0.58%	39.11	-0.53%	60.22	1.01%	53.45	0.64%	41.00	0.05%			744.49	-1.36%	54.81	-1.33%	23685.42	0.25%	2863.70	0.39%
5/18/2020	78.71	5.00%	122.51	4.03%	45.24	4.87%	41.23	5.42%	63.55	5.53%	56.98	6.60%	42.95	4.76%			773.18	3.85%	57.06	4.11%	24597.37	3.85%	2953.91	3.15%
5/19/2020	75.62	-3.93%	120.17	-1.91%	43.58	-3.67%	39.9	-3.23%	61.28	-3.57%	55.44	-2.70%	41.14	-4.21%			761.4	-1.52%	56.12	-1.65%	24206.86	-1.59%	2922.94	-1.05%
5/20/2020	77.98	3.12%	120.60	0.36%	44.24	1.51%	40.51	1.53%	62.36	1.76%	57.49	3.70%	42.45	3.18%			761.59	0.02%	56.43	0.55%	24575.9	1.52%	2971.61	1.67%
5/21/2020	78.93	1.22%	120.62	0.02%	45.1	1.94%	41.03	1.28%	62.52	0.26%	59.32	3.18%	42.45	0.00%			754.02	-0.99%	55.86	-1.01%	24474.12	-0.41%	2948.51	-0.78%
5/22/2020	79.61	0.86%	120.71	0.07%	45.17	0.16%	41.03	0.00%	63.80	2.05%	59.80	0.81%	43.02	1.34%			763.93	1.31%	56.48	1.11%	24465.16	-0.04%	2955.45	0.24%
5/26/2020	79.12	-0.62%	120.74	0.02%	45.53	0.80%	41.31	0.68%	65.35	2.43%	60.02	0.37%	43.73	1.65%			769.03	0.67%	56.85	0.66%	24995.11	2.17%	2991.77	1.23%
5/27/2020	79.52	0.51%	120.54	-0.17%	45.86	0.72%	41.92	1.48%	66.52	1.79%	59.87	-0.25%	44.16	0.98%			777.69	1.13%	57.53	1.20%	25548.27	2.21%	3036.13	1.48%
5/28/2020	80.61	1.37%	123.72	2.64%	46.52	1.44%	42.97	2.50%	65.94	-0.87%	61.21	2.24%	44.58	0.95%			800.8	2.97%	59.23	2.95%	25400.64	-0.58%	3029.73	-0.21%
5/29/2020	82.01	1.74%	127.00	2.65%	47	1.03%	43.76	1.84%	67.86	2.91%	62.84	2.66%	44.40	-0.40%			806.92	0.76%	59.69	0.78%	25383.11	-0.07%	3044.31	0.48%
6/1/2020	81.16	-1.04%	127.77	0.61%	46.24	-1.62%	43.2	-1.28%	67.26	-0.88%	62.73	-0.18%	43.55	-1.91%			815.33	1.04%	60.40	1.19%	25475.02	0.36%	3055.73	0.38%
6/2/2020	80.92	-0.30%	130.09	1.82%	46.69	0.97%	44.44	2.87%	68.29	1.53%	63.52	1.26%	44.50	2.18%			820.4	0.62%	60.79	0.65%	25742.65	1.05%	3080.82	0.82%
6/3/2020	81.48	0.69%	132.35	1.74%	47.31	1.33%	45.11	1.51%	69.74	2.12%	64.87	2.13%	46.13	3.66%			831.27	1.32%	61.52	1.20%	26269.89	2.05%	3122.87	1.36%
6/4/2020	81.08	-0.49%	130.70	-1.25%	47.3	-0.02%	44.51	-1.33%	68.45	-1.85%	63.89	-1.51%	45.11	-2.21%			814.06	-2.07%	60.42	-1.79%	26281.82	0.05%	3112.35	-0.34%
6/5/2020	82.39	1.62%	131.56	0.66%	48.45	2.43%	45.67	2.61%	69.95	2.19%	65.22	2.08%	46.85	3.86%			826.52	1.53%	61.19	1.27%	27110.98	3.15%	3193.93	2.62%
6/8/2020	81.59	-0.97%	132.50	0.71%	48.01	-0.91%	46.61	2.06%	69.42	-0.76%	65.58	0.55%	46.87	0.04%			847.26	2.51%	62.83	2.68%	27572.44	1.70%	3232.39	1.20%
6/9/2020	79.50	-2.56%	130.70	-1.36%	47.5	-1.06%	46.06	-1.18%	68.75	-0.97%	65.93	0.53%	45.97	-1.92%			830.34	-2.00%	61.57	-2.01%	27272.3	-1.09%	3207.18	-0.78%
6/10/2020	79.85	0.44%	131.06	0.28%	47.58	0.17%	45.72	-0.74%	68.85	0.15%	64.85	-1.64%	45.63	-0.74%			824.72	-0.68%	61.21	-0.58%	26989.99	-1.04%	3190.14	-0.53%
6/11/2020	75.57	-5.36%	127.50	-2.72%	45.49	-4.39%	43.54	-4.77%	67.68	-1.70%	63.04	-2.79%	43.09	-5.57%			793.23	-3.82%	58.82	-3.90%	25128.17	-6.90%	3002.10	-5.89%
6/12/2020	76.49	1.22%	127.29	-0.16%	45.95	1.01%	43.97	0.99%	68.04	0.53%	62.78	-0.41%	43.74	1.51%			793	-0.03%	58.67	-0.26%	25605.539	1.90%	3041.31	1.31%
6/15/2020	78.95	3.22%	129.22	1.52%	47.31	2.96%	44.67	1.59%	70.56	3.70%	63.87	1.74%	46.80	7.00%			799.76	0.85%	59.07	0.68%	25763.16	0.62%	3066.59	0.83%
6/16/2020	78.38	-0.72%	129.66	0.34%	47.02	-0.61%	43.98	-1.54%	69.38	-1.67%	63.42	-0.70%	45.61	-2.54%			802.37	0.33%	59.34	0.46%	26289.98	2.04%	3124.74	1.90%
6/17/2020	77.65	-0.93%	129.86	0.15%	46.76	-0.55%	43.59	-0.89%	68.56	-1.18%	63.11	-0.49%	45.18	-0.94%			800.36	-0.25%	59.16	-0.30%	26119.61	-0.65%	3113.49	-0.36%
6/18/2020	77.59	-0.08%	129.17	-0.53%	46.9	0.30%	43.6	0.02%	68.10	-0.67%	61.97	-1.81%	45.37	0.42%			798.74	-0.20%	59.15	-0.02%	26080.1	-0.15%	3115.34	0.06%
6/19/2020	77.00	-0.76%	126.36	-2.18%	45.83	-2.28%	42.01	-3.65%	67.54	-0.82%	61.22	-1.21%	46.38	2.23%			770.61	-3.52%	57.49	-2.81%	25871.46	-0.80%	3097.74	-0.57%
6/22/2020	77.63	0.82%	126.83	0.37%	46.43	1.31%	41.98	-0.07%	66.48	-1.57%	60.62	-0.98%	45.93	-0.97%			780.42	1.27%	57.57	0.14%	26024.96	0.59%	3117.86	0.65%
6/23/2020	77.32	-0.40%	125.22	-1.27%	45.9	-1.14%	41.64	-0.81%	66.31	-0.26%	61.15	0.87%	46.91	2.13%			773.47	-0.89%	56.99	-1.01%	26156.1	0.50%	3131.29	0.43%
6/24/2020	76.57	-0.97%	124.40	-0.65%	45.57	-0.72%	41.43	-0.50%	64.73	-2.38%	59.85	-2.13%	46.29	-1.32%			767.6	-0.76%	56.47	-0.91%	25445.94	-2.72%	3050.33	-2.59%
6/25/2020	75.67	-1.18%	122.22	-1.75%	45.38	-0.42%	40.74	-1.67%	63.76	-1.50%	59.59	-0.43%	47.30	2.18%			757.34	-1.34%	55.77	-1.24%	25745.6	1.18%	3083.76	1.10%
6/26/2020	73.85	-2.41%	124.08	1.52%	44.28	-2.42%	41.14	0.98%	61.50	-3.54%	57.02	-4.31%	47.53	0.49%			749.4	-1.05%	55.18	-1.06%	25015.55	-2.84%	3009.05	-2.42%
6/29/2020	77.29	4.66%	125.37	1.04%	46.39	4.77%	41.67	1.29%	65.92	7.19%	60.01	5.24%	47.02	-1.07%			764.39	2.00%	56.22	1.88%	25595.8	2.32%	3053.24	1.47%
6/30/2020	78.63	1.73%	128.66	2.62%	47.7	2.82%	42.24	1.37%	67.18	1.91%	62.11	3.50%	47.96	2.00%			767.5	0.41%	56.43	0.37%	25812.88	0.85%	3100.29	1.54%
7/1/2020	78.47	-0.20%	130.62	1.52%	48.03	0.69%	43.31	2.53%	67.21	0.04%	62.50	0.63%	48.04	0.17%			785.15	2.30%	57.75	2.34%	25734.97	-0.30%	3115.86	0.50%
7/2/2020	79.59	1.43%	131.06	0.34%	48.35	0.67%	43.44	0.30%	67.65	0.65%	63.44	1.50%	48.87	1.73%			786.89	0.22%	57.90	0.26%	25827.36	0.36%	3130.01	0.45%
7/6/2020	78.27	-1.66%	131.04	-0.02%	48.19	-0.33%	43.68	0.55%	66.60	-1.55%	62.12	-2.08%	47.72	-2.35%			779.03	-1.00%	57.19	-1.23%	26287.03	1.78%	3179.72	1.59%
7/7/2020	77.27	-1.28%	130.31	-0.56%	47.79	-0.83%	42.9	-1.79%	64.58	-3.03%	61.28	-1.35%	46.24	-3.10%			775.59	-0.44%	56.96	-0.40%	25890.18	-1.51%	3145.32	-1.08%
7/8/2020	77.52	0.32%	131.76	1.11%	47.69	-0.21%	43.1	0.47%	64.44	-0.22%	61.64	0.59%	46.46	0.48%			783.15	0.97%	57.47	0.90%	26067.28	0.68%	3169.94	0.78%
7/9/2020	76.44	-1.39%	130.69	-0.81%	46.71	-2.05%	42.53	-1.32%	62.54	-2.95%	60.98	-1.07%	45.27	-2.56%			774.23	-1.14%	56.70	-1.34%	25706.09	-1.39%	3152.05	-0.56%
7/10/2020	77.87	1.87%	133.39	2.07%	47.99	2.74%	43.28	1.76%	63.64	1.76%	62.03	1.72%	46.34	2.36%			791.35	2.21%	57.77	1.89%	26075.3	1.44%	3185.04	1.05%
7/13/2020	76.91	-1.23%	132.97	-0.31%	46.95	-2.17%	43.37	0.21%	62.76	-1.38%	62.12	0.15%	45.92	-0.91%			791.24	-0.01%	57.83	0.10%	26085.8	0.04%	3155.22	-0.94%
7/14/2020	76.57	-0.44%	134.84	1.41%	47.47	1.11%	43.38	0.02%	63.06	0.48%	62.70	0.93%	46.72	1.74%			799.91	1.10%	58.37	0.93%	26642.59	2.13%	3197.52	1.34%
7/15/2020	77.21	0.84%	134.06	-0.58%	48	1.12%	43.04	-0.78%	64.02	1.52%	62.63	-0.11%	47.32	1.28%			796.47	-0.43%	58.14	-0.39%	26870.1	0.85%	3226.56	0.91%
7/16/2020	77.59	0.49%	138.32	3.18%	48.28	0.58%	43.88	1.95%	64.68	1.03%	63.02	0.62%	47.72	0.85%			809.52	1.64%	58.88	1.27%	26734.71	-0.50%	3215.57	-0.34%
7/17/2020	79.92	3.00%	141.22	2.10%	49.32	2.15%	44.71	1.89%	66.53	2.86%	65.06	3.24%	49.93	4.63%			828.6	2.36%	60.21	2.26%	26671.95	-0.23%	3224.73	0.28%
7/20/2020	78.89	-1.29%	139.71	-1.07%	48.55	-1.56%	44.41	-0.67%	66.08	-0.68%	63.83	-1.89%	49.87	-0.12%			817.04	-1.40%	59.42	-1.31%	26680.87	0.03%	3251.84	0.84%
7/21/2020	80.66	2.24%	141.18	1.05%	49.67	2.31%	44.7	0.65%	67.00	1.39%	64.75	1.44%	50.65	1.56%			820.47	0.42%	59.69	0.45%	26840.4	0.60%	3257.30	0.17%
7/22/2020	80.96	0.37%	143.79	1.85%	50.02	0.70%	45.71	2.26%	67.15	0.22%	65.61	1.33%	49.25	-2.76%			829.5	1.10%	60.61	1.54%	27005.84	0.62%	3276.02	0.57%
7/23/2020	81.34	0.47%	144.89	0.77%	50.54	1.04%	45.88	0.37%	67.11	-0.06%	65.91	0.46%	48.45	-1.62%			830.7	0.14%	60.68	0.12%	26652.33	-1.31%	3235.66	-1.23%
7/24/2020	80.20	-1.40%	144.52	-0.26%	49.72	-1.62%	45.7	-0.39%	66.95	-0.24%	64.71	-1.82%	48.46	0.02%			825.74	-0.60%	60.28	-0.66%	26469.891	-0.68%	3215.63	-0.62%
7/27/2020	79.21	-1.23%	144.33	-0.13%	49.25	-0.95%	45.26	-0.96%	66.08	-1.30%	64.14	-0.88%	48.43	-0.06%			813.02	-1.54%	59.55	-1.21%	26584.77	0.43%	3239.41	0.74%
7/28/2020	79.22	0.01%	145.36	0.71%	48.95	-0.61%	45.54	0.62%	65.92	-0.24%	64.69	0.86%	48.13	-0.62%			825.47	1.53%	60.45	1.51%	26379.28	-0.77%	3218.44	-0.65%
7/29/2020	79.87	0.82%	147.99	1.81%	49.38	0.88%	45.87	0.72%	67.36	2.18%	65.23	0.83%	48.44	0.64%			828.96	0.42%	60.73	0.46%	26539.57	0.61%	3258.44	1.24%
7/30/2020	78.33	-1.93%	146.63	-0.92%	48.04	-2.71%	45.55	-0.70%	64.90	-3.65%	63.57	-2.54%	47.21	-2.54%			828.13	-0.10%	60.73	0.00%	26313.65	-0.85%	3246.22	-0.37%
7/31/2020	76.88	-1.85%	147.27	0.44%	46.87	-2.44%	45.35	-0.44%	64.06	-1.29%	62.46	-1.75%	46.31	-1.91%			830.77	0.32%	60.83	0.16%	26428.32	0.44%	3271.12	0.77%
8/3/2020	77.00	0.16%	147.06	-0.14%	46.98	0.23%	44.93	-0.93%	66.02	3.06%	62.66	0.32%	45.64	-1.45%			822.34	-1.01%	60.17	-1.08%	26664.4	0.89%	3294.61	0.72%
8/4/2020	76.03	-1.26%	147.50	0.30%	46.65	-0.70%	45.09	0.36%	65.60	-0.64%	63.23	0.91%	45.04	-1.31%			832.49	1.23%	60.83	1.10%	26828.47	0.62%	3306.51	0.36%
8/5/2020	76.64	0.80%	147.25	-0.17%	46.91	0.56%	44.69	-0.89%	65.74	0.21%	63.96	1.15%	45.01	-0.07%			825.37	-0.86%	60.05	-1.28%	27201.52	1.39%	3327.77	0.64%
8/6/2020	76.65	0.01%	146.97	-0.19%	46.96	0.11%	45.56	1.95%	66.10	0.55%	64.76	1.25%	45.98	2.16%			828.87	0.42%	60.40	0.58%	27386.98	0.68%	3349.16	0.64%
8/7/2020	79.87	4.20%	149.79	1.92%	48.82	3.96%	47.27	3.75%	69.58	5.26%	70.04	8.15%	48.10	4.61%			843.23	1.73%	61.49	1.80%	27433.48	0.17%	3351.28	0.06%
8/10/2020	79.85	-0.03%	149.11	-0.45%	48.98	0.33%	47.81	1.14%	69.35	-0.33%	71.06	1.46%	47.74	-0.75%			841.03	-0.26%	61.47	-0.03%	27791.44	1.30%	3360.47	0.27%
8/11/2020	78.13	-2.15%	142.42	-4.49%	47.93	-2.14%	45.68	-4.46%	67.83	-2.19%	66.43	-6.52%	47.09	-1.36%			821.99	-2.26%	60.14	-2.16%	27686.91	-0.38%	3333.69	-0.80%
8/12/2020	80.29	2.76%	145.87	2.42%	48.63	1.46%	46.02	0.74%	68.16	0.49%	68.49	3.10%	48.15	2.25%			836.74	1.79%	61.01	1.45%	27976.84	1.05%	3380.35	1.40%
8/13/2020	78.95	-1.67%	146.51	0.44%	48.37	-0.53%	45.31	-1.54%	67.91	-0.37%	68.64	0.22%	47.33	-1.70%			834.39	-0.28%	60.91	-0.16%	27896.72	-0.29%	3373.43	-0.20%
8/14/2020	78.74	-0.27%	145.31	-0.82%	48.44	0.14%	45.35	0.09%	67.43	-0.71%	69.05	0.60%	47.05	-0.59%			824.87	-1.14%	60.38	-0.87%	27931.02	0.12%	3372.85	-0.02%
8/17/2020	78.67	-0.09%	146.56	0.86%	48.24	-0.41%	44.75	-1.32%	66.81	-0.92%	67.46	-2.30%	47.02	-0.06%			823.96	-0.11%	60.30	-0.13%	27844.91	-0.31%	3382.00	0.27%
8/18/2020	78.12	-0.70%	146.00	-0.38%	48.16	-0.17%	44.7	-0.11%	66.55	-0.39%	66.20	-1.87%	46.28	-1.57%			820.37	-0.44%	60.03	-0.45%	27778.07	-0.24%	3389.78	0.23%
8/19/2020	77.09	-1.32%	143.92	-1.42%	47.2	-1.99%	43.97	-1.63%	65.49	-1.59%	64.82	-2.08%	45.84	-0.95%			817.16	-0.39%	59.85	-0.30%	27692.88	-0.31%	3374.85	-0.44%
8/20/2020	77.02	-0.09%	144.28	0.25%	47.11	-0.19%	43.61	-0.82%	65.24	-0.38%	64.60	-0.34%	45.80	-0.09%			810.59	-0.80%	59.32	-0.89%	27739.73	0.17%	3385.51	0.32%
8/21/2020	76.51	-0.66%	143.64	-0.44%	46.63	-1.02%	43.2	-0.94%	64.79	-0.69%	63.83	-1.19%	45.65	-0.33%			809.61	-0.12%	59.42	0.17%	27930.33	0.69%	3397.16	0.34%
8/24/2020	77.78	1.66%	143.88	0.17%	47.12	1.05%	43.6	0.93%	64.78	-0.02%	64.18	0.55%	45.91	0.57%			817.71	1.00%	59.94	0.88%	28308.46	1.35%	3431.28	1.00%
8/25/2020	78.05	0.35%	143.53	-0.24%	47.41	0.62%	43.28	-0.73%	64.66	-0.19%	63.83	-0.55%	45.84	-0.15%			810.8	-0.85%	59.37	-0.95%	28248.44	-0.21%	3443.62	0.36%
8/26/2020	76.43	-2.08%	140.90	-1.83%	46.25	-2.45%	42.62	-1.52%	64.09	-0.88%	62.92	-1.43%	45.12	-1.57%			798.89	-1.47%	58.71	-1.11%	28331.92	0.30%	3478.73	1.02%
8/27/2020	77.01	0.76%	141.37	0.33%	46.7	0.97%	42.4	-0.52%	65.33	1.93%	63.47	0.87%	45.39	0.60%			800.69	0.23%	58.90	0.32%	28492.27	0.57%	3484.55	0.17%

	American States Water Company		American Water Works Company, Inc		California Water Service Group		Essential Utilities, Inc		Middlsex Water Company		SJW Group		York Water Company		Proxy Group		DJU		XLU		DJIA		S&P 500	
	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return	Price	Return
8/28/2020	76.51	-0.65%	140.79	-0.41%	46.05	-1.39%	42.62	0.52%	64.83	-0.77%	63.40	-0.11%	44.87	-1.15%			800.73	0.00%	59.07	0.29%	28653.87	0.57%	3508.01	0.67%
8/31/2020	76.08	-0.56%	141.34	0.39%	45.34	-1.54%	42.5	-0.28%	64.13	-1.08%	62.53	-1.37%	45.61	1.65%			803.22	0.31%	59.25	0.30%	28430.05	-0.78%	3500.31	-0.22%
9/1/2020	75.20	-1.16%	140.17	-0.83%	44.86	-1.06%	41.91	-1.39%	64.10	-0.05%	61.52	-1.62%	44.82	-1.73%			794.08	-1.14%	58.57	-1.15%	28645.66	0.76%	3526.65	0.75%
9/2/2020	77.23	2.70%	144.15	2.84%	45.96	2.45%	42.21	0.72%	65.41	2.04%	63.24	2.80%	45.86	2.32%			818.68	3.10%	60.39	3.11%	29100.5	1.59%	3580.84	1.54%
9/3/2020	77.35	0.16%	142.48	-1.16%	45.95	-0.02%	41.99	-0.52%	64.52	-1.36%	62.80	-0.70%	45.18	-1.48%			808.12	-1.29%	59.71	-1.13%	28292.73	-2.78%	3455.06	-3.51%
9/4/2020	76.99	-0.47%	143.17	0.48%	45.88	-0.15%	41.59	-0.95%	63.90	-0.96%	62.41	-0.62%	44.65	-1.17%			803.7	-0.55%	59.37	-0.57%	28133.31	-0.56%	3426.96	-0.81%
9/8/2020	75.30	-2.20%	140.77	-1.68%	45.16	-1.57%	39.95	-3.94%	62.36	-2.41%	60.72	-2.71%	43.74	-2.04%			798.63	-0.63%	59.04	-0.56%	27500.89	-2.25%	3331.84	-2.78%
9/9/2020	75.64	0.45%	143.20	1.73%	44.92	-0.53%	39.94	-0.03%	64.02	2.66%	61.08	0.59%	44.67	2.13%			809.51	1.36%	59.82	1.32%	27940.47	1.60%	3398.96	2.01%
9/10/2020	74.06	-2.09%	140.77	-1.70%	44.26	-1.47%	39.22	-1.80%	63.04	-1.53%	60.17	-1.49%	43.50	-2.62%			796.34	-1.63%	58.79	-1.72%	27534.58	-1.45%	3339.19	-1.76%
9/11/2020	73.44	-0.84%	141.10	0.23%	43.71	-1.24%	39.35	0.33%	61.87	-1.86%	59.72	-0.75%	43.21	-0.67%			799.93	0.45%	58.93	0.24%	27665.64	0.48%	3340.97	0.05%
9/14/2020	73.55	0.15%	142.88	1.26%	43.75	0.09%	39.82	1.19%	63.75	3.04%	60.29	0.95%	43.51	0.69%			810.94	1.38%	59.74	1.37%	27993.33	1.18%	3383.54	1.27%
9/15/2020	72.48	-1.45%	143.59	0.50%	43.19	-1.28%	39.41	-1.03%	64.52	1.21%	60.08	-0.35%	43.46	-0.11%			818.68	0.95%	60.14	0.67%	27995.6	0.01%	3401.20	0.52%
9/16/2020	72.36	-0.17%	142.77	-0.57%	43.19	0.00%	39.6	0.48%	63.82	-1.08%	60.84	1.26%	43.13	-0.76%			814.51	-0.51%	60.06	-0.13%	28032.38	0.13%	3385.49	-0.46%
9/17/2020	71.23	-1.56%	141.02	-1.23%	42.27	-2.13%	39.77	0.43%	62.80	-1.60%	61.10	0.43%	42.87	-0.60%			810.81	-0.45%	59.57	-0.82%	27901.98	-0.47%	3357.01	-0.84%
9/18/2020	69.99	-1.74%	138.28	-1.94%	41.85	-0.99%	39.19	-1.46%	62.42	-0.61%	59.91	-1.95%	44.07	2.80%			797.95	-1.59%	58.52	-1.76%	27657.42	-0.88%	3319.47	-1.12%
9/21/2020	74.37	6.26%	139.72	1.04%	42.79	2.25%	39.31	0.31%	62.09	-0.53%	60.62	1.19%	42.32	-3.97%			793.72	-0.53%	57.66	-1.47%	27147.7	-1.84%	3281.06	-1.16%
9/22/2020	73.49	-1.18%	140.17	0.32%	42.87	0.19%	39.39	0.20%	61.57	-0.84%	60.66	0.07%	41.87	-1.06%			799.37	0.71%	58.02	0.62%	27288.18	0.52%	3315.57	1.05%
9/23/2020	72.03	-1.99%	138.05	-1.51%	41.66	-2.82%	38.53	-2.18%	59.64	-3.13%	58.56	-3.46%	40.67	-2.87%			785.16	-1.78%	57.13	-1.53%	26763.13	-1.92%	3236.92	-2.37%
9/24/2020	72.92	1.24%	140.66	1.89%	42.23	1.37%	39.05	1.35%	60.63	1.66%	59.81	2.13%	41.14	1.16%			795.93	1.37%	57.77	1.12%	26815.44	0.20%	3246.59	0.30%
9/25/2020	73.84	1.26%	144.23	2.54%	42.73	1.18%	39.57	1.33%	61.57	1.55%	60.81	1.67%	41.86	1.75%			808.13	1.53%	58.72	1.64%	27173.96	1.34%	3298.46	1.60%
9/28/2020	74.33	0.66%	144.55	0.22%	43.55	1.92%	39.93	0.91%	62.37	1.30%	61.23	0.69%	43.39	3.66%			810.2	0.26%	58.87	0.26%	27584.06	1.51%	3351.60	1.61%
9/29/2020	74.45	0.16%	143.70	-0.59%	43.44	-0.25%	39.78	-0.38%	62.48	0.18%	61.10	-0.21%	42.95	-1.01%			808.99	-0.15%	58.85	-0.03%	27452.66	-0.48%	3335.47	-0.48%
9/30/2020	74.95	0.67%	144.88	0.82%	43.45	0.02%	40.25	1.18%	62.15	-0.53%	60.86	-0.39%	42.27	-1.58%			814.7	0.71%	59.38	0.90%	27781.7	1.20%	3363.00	0.83%
10/1/2020	76.10	1.53%	148.57	2.55%	44.64	2.74%	40.83	1.44%	63.42	2.04%	61.60	1.22%	42.60	0.78%			824.27	1.17%	59.98	1.01%	27816.9	0.13%	3380.80	0.53%
10/2/2020	76.72	0.81%	148.96	0.26%	44.9	0.58%	41.66	2.03%	63.02	-0.63%	61.56	-0.06%	42.68	0.19%			832.49	1.00%	60.69	1.18%	27682.81	-0.48%	3348.44	-0.96%
10/5/2020	76.40	-0.42%	151.89	1.97%	44.83	-0.16%	41.78	0.29%	63.18	0.25%	61.93	0.60%	42.94	0.61%			844.57	1.45%	61.45	1.25%	28148.64	1.68%	3408.63	1.80%
10/6/2020	76.78	0.50%	152.49	0.40%	45.02	0.42%	41.13	-1.56%	62.94	-0.38%	60.11	-2.94%	42.54	-0.93%			850.89	0.75%	61.97	0.85%	27772.76	-1.34%	3360.95	-1.40%
10/7/2020	75.92	-1.12%	154.51	1.32%	44.63	-0.87%	41.03	-0.24%	63.35	0.65%	61.27	1.93%	43.21	1.57%			859.99	1.07%	62.35	0.61%	28303.46	1.91%	3419.45	1.74%
10/8/2020	76.54	0.82%	155.85	0.87%	45.01	0.85%	41.71	1.66%	64.32	1.53%	61.27	0.00%	43.66	1.04%			875.3	1.78%	63.49	1.83%	28425.51	0.43%	3446.83	0.80%
10/9/2020	76.67	0.17%	155.75	-0.06%	44.93	-0.18%	41.64	-0.17%	64.28	-0.06%	61.28	0.02%	43.58	-0.18%			875.81	0.06%	63.48	-0.02%	28586.9	0.57%	3477.13	0.88%
10/12/2020	79.11	3.18%	158.32	1.65%	46.43	3.34%	42.25	1.46%	67.04	4.29%	62.56	2.09%	45.33	4.02%			882.82	0.80%	63.88	0.63%	28837.52	0.88%	3534.22	1.64%
10/13/2020	78.28	-1.05%	156.08	-1.41%	45.72	-1.53%	42.1	-0.36%	65.52	-2.27%	62.24	-0.51%	45.02	-0.68%			876.05	-0.77%	63.44	-0.69%	28679.81	-0.55%	3511.93	-0.63%
10/14/2020	77.37	-1.16%	155.76	-0.21%	45.36	-0.79%	41.59	-1.21%	64.65	-1.33%	61.30	-1.51%	44.48	-1.20%			875.19	-0.10%	63.36	-0.13%	28514	-0.58%	3488.67	-0.66%
10/15/2020	77.31	-0.08%	155.86	0.06%	45.71	0.77%	41.47	-0.29%	65.78	1.75%	61.49	0.31%	44.92	0.99%			875.22	0.00%	63.32	-0.06%	28494.2	-0.07%	3483.34	-0.15%
10/16/2020	77.62	0.40%	155.72	-0.09%	46.27	1.23%	41.85	0.92%	66.88	1.67%	61.65	0.26%	45.23	0.69%			884.52	1.06%	64.00	1.07%	28606.31	0.39%	3483.81	0.01%
10/19/2020	76.68	-1.21%	154.52	-0.77%	45.66	-1.32%	41.55	-0.72%	67.33	0.67%	61.03	-1.01%	45.11	-0.27%			877.6	-0.78%	63.46	-0.84%	28195.42	-1.44%	3426.92	-1.63%
10/20/2020	76.52	-0.21%	153.15	-0.89%	46.16	1.10%	42.1	1.32%	66.47	-1.28%	60.66	-0.61%	45.37	0.58%			881.15	0.40%	63.84	0.60%	28308.79	0.40%	3443.12	0.47%
10/21/2020	77.14	0.81%	152.25	-0.59%	46.69	1.15%	42.57	1.12%	67.43	1.44%	61.57	1.50%	45.48	0.24%			877.1	-0.46%	63.67	-0.27%	28210.82	-0.35%	3435.56	-0.22%
10/22/2020	77.77	0.82%	153.61	0.89%	47.55	1.84%	44	3.36%	68.61	1.75%	62.88	2.13%	45.74	0.57%			891.28	1.62%	64.57	1.41%	28363.66	0.54%	3453.49	0.52%
10/23/2020	79.23	1.88%	154.08	0.31%	48.18	1.32%	44.5	1.14%	69.70	1.59%	64.29	2.24%	46.27	1.16%			893.68	0.27%	64.75	0.28%	28335.57	-0.10%	3465.39	0.34%
10/26/2020	77.80	-1.80%	154.01	-0.05%	47.34	-1.74%	43.9	-1.35%	68.74	-1.38%	63.54	-1.17%	45.69	-1.25%			891.98	-0.19%	64.73	-0.03%	27685.38	-2.29%	3400.97	-1.86%
10/27/2020	78.09	0.37%	154.62	0.40%	47.3	-0.08%	43.46	-1.00%	68.97	0.33%	63.79	0.39%	45.19	-1.09%			890.68	-0.15%	64.68	-0.08%	27463.19	-0.80%	3390.68	-0.30%
10/28/2020	75.80	-2.93%	153.00	-1.05%	45.72	-3.34%	42.39	-2.46%	66.82	-3.12%	61.84	-3.06%	43.80	-3.08%			865.33	-2.85%	62.80	-2.91%	26519.95	-3.43%	3271.03	-3.53%
10/29/2020	75.84	0.05%	152.16	-0.55%	45.38	-0.74%	41.95	-1.04%	66.32	-0.75%	61.63	-0.34%	42.87	-2.12%			867.65	0.27%	62.97	0.27%	26659.11	0.52%	3310.11	1.19%
10/30/2020	74.69	-1.52%	150.51	-1.08%	44.57	-1.78%	41.2	-1.79%	64.14	-3.29%	60.69	-1.53%	42.25	-1.45%			857.77	-1.14%	62.38	-0.94%	26501.602	-0.59%	3269.96	-1.21%
11/2/2020	76.15	1.95%	154.30	2.52%	45.73	2.60%	41.83	1.53%	67.74	5.61%	62.30	2.65%	43.79	3.64%			876.56	2.19%	63.75	2.20%	26925.05	1.60%	3310.24	1.23%
11/3/2020	75.28	-1.14%	157.10	1.81%	46.54	1.77%	42.33	1.20%	67.90	0.24%	64.07	2.84%	44.95	2.65%			889.78	1.51%	64.67	1.44%	27480.03	2.06%	3369.02	1.78%
11/4/2020	72.45	-3.76%	155.41	-1.08%	45.48	-2.28%	41.19	-2.69%	65.56	-3.45%	61.54	-3.95%	43.50	-3.23%			877.69	-1.36%	63.70	-1.50%	27847.66	1.34%	3443.44	2.21%
11/5/2020	72.88	0.59%	158.21	1.80%	46.01	1.17%	42.23	2.52%	67.56	3.05%	63.02	2.40%	44.13	1.45%			885.44	0.88%	64.27	0.89%	28390.18	1.95%	3510.45	1.95%
11/6/2020	72.96	0.11%	161.13	1.85%	46.66	1.41%	43.06	1.97%	66.85	-1.05%	61.72	-2.06%	43.90	-0.52%			881.76	-0.42%	64.13	-0.22%	28323.4	-0.24%	3509.44	-0.03%
11/9/2020	75.31	3.22%	162.33	0.74%	50.63	8.51%	44.93	4.34%	68.58	2.59%	65.56	6.22%	44.20	0.68%			898.85	1.94%	65.32	1.86%	29157.97	2.95%	3550.50	1.17%
11/10/2020	79.67	5.79%	163.51	0.73%	53.35	5.37%	46.34	3.14%	73.45	7.10%	67.05	2.27%	48.61	9.98%			916.18	1.93%	66.26	1.44%	29420.92	0.90%	3545.53	-0.14%
11/11/2020	79.10	-0.72%	164.37	0.53%	53.17	-0.34%	46.37	0.06%	73.26	-0.26%	68.15	1.64%	48.23	-0.78%			917.19	0.11%	66.51	0.38%	29397.63	-0.08%	3572.66	0.77%
11/12/2020	76.88	-2.81%	161.41	-1.80%	51.53	-3.08%	44.8	-3.39%	70.79	-3.37%	65.56	-3.80%	46.63	-3.32%			902.1	-1.65%	65.44	-1.61%	29080.17	-1.08%	3537.01	-1.00%
11/13/2020	77.20	0.42%	161.31	-0.06%	52.38	1.65%	44.71	-0.20%	71.06	0.38%	66.17	0.93%	46.18	-0.97%			910.91	0.98%	66.09	0.99%	29479.81	1.37%	3585.15	1.36%
Price 1/31/2020	88.56		136.20		52.56		51.94		65.26		73.35		47.36				938.57		68.98		28256.03		3225.52	
Price 11/13/2020	77.20		161.31		52.38		44.71		71.06		66.17		46.18				910.91		66.09		29479.81		3585.15	
Price Change (1)	-12.83%		18.44%		-0.34%		-13.92%		8.89%		-9.79%		-2.49%		-1.72%		-2.95%		-4.19%		4.33%		11.15%	
Standard Deviation of Returns		3.55%		2.97%		3.55%		3.37%		3.35%		3.86%		3.89%		3.50%		2.70%		2.71%		2.57%		2.42%
Annual Volatility (2)		56.29%		47.07%		56.42%		53.50%		53.22%		61.27%		61.69%		55.64%		42.83%		42.97%		40.84%		38.35%

Source: S&P Market Intelligence, S&P Capital IQ

Notes:
(1) (11/13/2020 price - 1/13/2020 price) / 1/13/2020 price.
(2) Standard deviation of returns over the period multiplied by the square root of 252, or number of trading days in a year.

Utilities, Inc of Florida
Gross Domestic Product by Industry

Industry	1947	2019	CAGR
Agriculture, forestry, fishing, and hunting	19.9	169.2	3.02%
Mining	5.8	320.3	5.73%
Utilities	3.5	334.6	**6.54%**
Construction	8.9	886.6	**6.60%**
Manufacturing	63.4	2,359.9	5.15%
Wholesale trade	15.6	1,278.1	6.31%
Retail trade	23.2	1,172.9	5.60%
Transportation and warehousing	14.1	684.5	5.54%
Information	7.7	1,120.3	**7.16%**
Finance, insurance, real estate, rental, and leasing	25.8	4,491.7	**7.43%**
Professional and business services	8.2	2,742.2	**8.41%**
Educational services, health care, and social assistance	4.6	1,881.4	**8.71%**
Arts, entertainment, recreation, accommodation, and food services	8.0	898.5	**6.78%**
Other services, except government	7.5	456.6	5.87%
Government	33.5	2,630.9	6.25%
Total Gross Domestic Product	249.7	21,427.7	6.38%

Source: Bureau of Economic Analysis

Utilities, Inc of Florida
Mr. Garrett's Implied ERP Calculation

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Year	Market Value	Operating Earnings	Dividends	Buybacks	Earnings Yield	Dividend Yield	Buyback Yield	Gross Cash Yield
2014	18,245	1,004	350	553	5.50%	1.92%	3.03%	4.95%
2015	17,900	885	382	572	4.95%	2.14%	3.20%	5.33%
2016	19,268	920	397	536	4.77%	2.06%	2.78%	4.85%
2017	22,821	1,066	420	519	4.67%	1.84%	2.28%	4.12%
2018	21,027	1,282	456	806	6.10%	2.17%	3.84%	6.01%
2019	26,760	1,305	485	729	4.88%	1.81%	2.72%	4.54%
Growth Rate		*5.37%*	*6.74%*	*5.66%*				

Cash Yield	4.96%	[9]
Growth Rate	5.37%	[10]
Risk-free Rate	1.51%	[11]
Current Index Value	3,391	[12]

	[13]	[14]	[15]	[16]	[17]
Year	1	2	3	4	5
Expected Dividends	177.40	186.93	196.98	207.56	218.71
Expected Terminal Value					3723.86
Present Value	165.07	161.84	158.68	155.58	2749.82

Intrinsic Index Value	3391	[18]
% Terminal Value	*76.59%*	
Required Return on Market	7.47%	[19]
Implied Equity Risk Premium	**5.96%**	[20]

Notes:
[1-4] S&P Quarterly Press Releases, data found at www.spdji.com/indices/equity/sp-500 (all dollar figures are in $ billions)
[1] Market value of S&P 500
[5] = [2] / [1]
[6] = [3] / [1]
[7] = [4] / [1]
[8] = [6] + [7]
[9] = Average of [8]
[10] = Compound annual growth rate of [2] = (end value / beginning value)$^{\wedge 1/5}$-1
[11] Risk-free rate calculated in Exhibit DJG-7
[12] 30-day average of closing index prices from Exhibit DJG-3
[13-16] Expected dividends = [9]*[12]*(1+[10])^n ; Present value = expected dividend / (1+[11]+[20])^n
[17] Expected terminal value = expected dividend * (1+[11]) / [20] ; Present value = (expected dividend + expected terminal value) / (1+[11]+[20])^n
[18] = Sum([13-17]) present values.
[19] = [20] + [11]
[20] Internal rate of return calculation setting [18] equal to [12] and solving for the discount rate

Utilities, Inc of Florida
Mr. Garrett's Implied ERP Calculation
Corrected to Reflect the use of Average Annual Growth Rates

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	ARITHMETIC AVERAGE			
Year	Market Value	Operating Earnings	Dividends	Buybacks	Earnings Yield	Dividend Yield	Buyback Yield	Gross Cash Yield	Market Value	Operating Earnings	Dividends	Buybacks
2014	18,245	1,004	350	553	5.50%	1.92%	3.03%	4.95%				
2015	17,900	885	382	572	4.95%	2.14%	3.20%	5.33%	-1.89%	-11.83%	9.10%	3.41%
2016	19,268	920	397	536	4.77%	2.06%	2.78%	4.85%	7.65%	3.89%	3.90%	-6.25%
2017	22,821	1,066	420	519	4.67%	1.84%	2.28%	4.12%	18.44%	15.89%	5.68%	-3.17%
2018	21,027	1,282	456	806	6.10%	2.17%	3.84%	6.01%	-7.86%	20.23%	8.70%	55.26%
2019	26,760	1,305	485	729	4.88%	1.81%	2.72%	4.54%	27.26%	1.79%	6.39%	-9.63%
Growth Rate		*5.37%*	*6.74%*	*5.66%*					8.72%	5.99%	6.75%	7.92%
Cash Yield	4.96%	[9]										
Growth Rate	7.35%	[10]										
Risk-free Rate	1.51%	[11]										
Current Index Value	3,391	[12]										

	[13]	[14]	[15]	[16]	[17]
Year	1	2	3	4	5
Expected Dividends	180.73	194.01	208.26	223.56	239.99
Expected Terminal Value					3764.12
Present Value	167.37	166.39	165.41	164.44	2727.40
Intrinsic Index Value	3391	[18]			
% Terminal Value	*75.61%*				
Required Return on Market	7.98%	[19]			
Implied Equity Risk Premium	**6.47%**	[20]			

Notes:
[1-4] S&P Quarterly Press Releases, data found at www.spdji.com/indices/equity/sp-500 (all dollar figures are in $ billions)
[1] Market value of S&P 500
[5] = [2] / [1]
[6] = [3] / [1]
[7] = [4] / [1]
[8] = [6] + [7]
[9] = Average of [8]
[10] = Average of annual growth rates of [1], [2], [3], and [4]
[11] Risk-free rate from Exhibit DJG-7
[12] 30-day average of closing index prices from Exhibit DJG-3
[13-16] Expected dividends = [9]*[12]*(1+[10])^n ; Present value = expected dividend / (1+[11]+[20])^n
[17] Expected terminal value = expected dividend * (1+[11]) / [20] ; Present value = (expected dividend + expected terminal value) / (1+[11]+[20])^n
[18] = Sum([13-17]) present values.
[19] = [20] + [11]
[20] Internal rate of return calculation setting [18] equal to [12] and solving for the discount rate

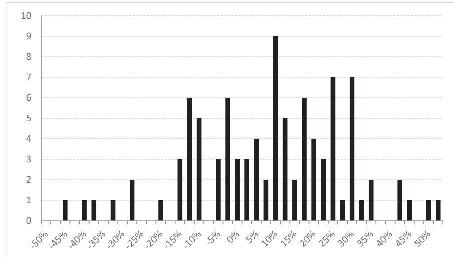
Utilities, Inc of Florida
Portfolio Ranks by Size and Risk Premiums over CAPM Results
as Compiled by Duff and Phelps 2020 Guide to Cost of Capital

Portfolio Rank by Size	B-1 Average Market Val. (in $millions)	RP	B-2 Average Book Val. (in $millions)	RP	B-3 5-yr Net Income (in $millions)	RP	B-4 MVIC (in $millions)	RP	B-5 Total Assets (in $millions)	RP	B-6 5-yr EBITDA (in $millions)	RP	B-7 Sales (in $millions)	RP	B-8 Average Number of Employees	RP
1	$185,926 and Up	-0.84%	$41,558 and Up	1.38%	$6,822 and Up	1.01%	$229,194 and Up	-0.32%	$114,076 and Up	1.09%	$14,974 and Up	1.13%	$90,302 and Up	1.29%	229,840 and Up	0.89%
2	$56,959 - $185,926	0.49%	$15,115 - $41,558	2.02%	$2,337 - $6,822	1.82%	$78,039 - $229,194	0.75%	$50,546 - $114,076	1.72%	$5,656 - $14,974	1.88%	$32,344 - $90,302	2.05%	89,648 - 229,840	1.76%
3	$35,409 - $56,959	0.98%	$9,686 - $15,115	2.29%	$1,439 - $2,337	2.13%	$47,251 - $78,039	1.24%	$33,793 - $50,546	1.98%	$3,665 - $5,656	2.18%	$20,065 - $32,344	2.44%	60,958 - 89,648	2.10%
4	$24,895 - $35,409	1.34%	$6,887 - $9,686	2.46%	$970 - $1,439	2.41%	$33,818 - $47,251	1.55%	$23,107 - $33,793	2.22%	$2,644 - $3,665	2.41%	$15,623 - $20,065	2.61%	45,827 - 60,958	2.32%
5	$18,621 - $24,895	1.61%	$5,248 - $6,887	2.64%	$753 - $970	2.60%	$25,668 - $33,818	1.79%	$16,907 - $23,107	2.45%	$1,996 - $2,644	2.59%	$11,773 - $15,263	2.78%	35,414 - 45,827	2.52%
6	$14,297 - $18,621	1.87%	$4,392 - $5,248	2.74%	$615 - $753	2.71%	$19,728 - $25,668	2.01%	$13,508 - $16,907	2.59%	$1,559 - $1,996	2.76%	$9,610 - $11,773	2.94%	28,157 - 35,414	2.70%
7	$11,416 - $14,297	2.10%	$3,712- $4,392	2.83%	$483 - $615	2.86%	$15,391 - $19,728	2.23%	$10,972 - $13,508	2.73%	$1,270 - $1,559	2.89%	$8,275 - $9,610	3.03%	23,063 - 28,157	2.86%
8	$9,274 - $11,416	2.29%	$3,122 - $3,712	2.91%	$388 - $483	3.01%	$12,436 - $15,391	2.42%	$9,164 - $10,972	2.85%	$1,044 - $1,270	3.01%	$7,157 - $8,275	3.13%	18,965 - 23,063	3.00%
9	$7,759 - $9,274	2.48%	$2,596 - $3,122	3.01%	$328 - $388	3.12%	$10,361 - $12,436	2.58%	$7,673 - $9,164	2.95%	$852 - $1,044	3.14%	$6,098 - $7,157	3.22%	15,846 - 18,965	3.15%
10	$6,635 - $7,759	2.61%	$2,201 - $2,596	3.11%	$289 - $328	3.22%	$8,701 - $10,361	2.73%	$6,462 - $7,673	3.07%	$721 - $852	3.27%	$4,991 - $6,098	3.33%	13,921 - 15,846	3.26%
11	$5,502 - $6,635	2.77%	$1,911 - $2,201	3.18%	$256 - $289	3.28%	$7,448 - $8,701	2.88%	$5,629 - $6,462	3.17%	$636 - $721	3.35%	$4,127 - $4,991	3.47%	12,271 - 13,921	3.35%
12	$4,624 - $5,502	2.96%	$1,687 - $1,911	3.25%	$218 - $256	3.37%	$6,594 - $7,448	2.99%	$4,934 - $5,629	3.25%	$555 - $636	3.43%	$3,550 - $4,127	3.57%	10,760 - 12,271	3.45%
13	$3,983 - $4,624	3.09%	$1,499 - $1,687	3.31%	$183 - $218	3.48%	$5,781 - $6,594	3.08%	$4,236 - $4,934	3.33%	$485 - $555	3.52%	$3,093 - $3,550	3.66%	9,489 - 10,760	3.54%
14	$3,413 - $3,983	3.23%	$1,312 - $1,499	3.38%	$155 - $183	3.58%	$4,947 - $5,781	3.21%	$3,576 - $4,236	3.44%	$427 - $485	3.60%	$2,723 - $3,093	3.75%	8,303 - 9,489	3.64%
15	$2,975 - $3,413	3.38%	$1,143 - $1,312	3.45%	$132 - $155	3.69%	$4,258 - $4,947	3.34%	$3,062 - $3,576	3.54%	$374 - $427	3.68%	$2,404 - $2,723	3.82%	7,138 - 8,303	3.74%
16	$2,644 - $2,975	3.48%	$996 - $1,143	3.52%	$111 - $132	3.78%	$3,684 - $4,258	3.46%	$2,642 - $3,062	3.63%	$323 - $374	3.76%	$2,137 - $2,404	3.90%	6,060 - 7,138	3.86%
17	$2,313 - $2,644	3.59%	$857 - $996	3.59%	$93 - $111	3.90%	$3,188 - $3,684	3.59%	$2,249 - $2,642	3.73%	$274 - $323	3.86%	$1,916 - $2,137	3.97%	5,130 - 6,060	3.99%
18	$1,932 - $2,313	3.73%	$739 - $857	3.68%	$79 - $93	4.00%	$2,722 - $3,188	3.70%	$1,898 - $2,249	3.83%	$227 - $274	3.97%	$1,692 - $1,916	4.04%	4,330 - 5,130	4.11%
19	$1,578 - $1,932	3.93%	$649 - $739	3.75%	$67 - $79	4.10%	$2,229 - $2,722	3.86%	$1,591 - $1,898	3.94%	$187 - $227	4.10%	$1,446 - $1,692	4.13%	3,605 - 4,330	4.24%
20	$1,320 - $1,578	4.11%	$562 - $649	3.82%	$55 - $67	4.21%	$1,790 - $2,229	4.04%	$1,310 - $1,591	4.05%	$155 - $187	4.22%	$1,171 - $1,446	4.24%	2,894 - 3,605	4.39%
21	$1,080 - $1,320	4.26%	$464 - $562	3.90%	$44 - $55	4.33%	$1,457 - $1,790	4.23%	$1,074 - $1,310	4.18%	$127 - $155	4.33%	$926 - $1,171	4.40%	2,247- 2,894	4.57%
22	$835 - $1,080	4.48%	$373 - $464	4.02%	$34 - $44	4.49%	$1,169 - $1,457	4.39%	$845 - $1,074	4.30%	$98 - $127	4.47%	$722 - $926	4.54%	1,687 - 2,247	4.77%
23	$591 - $835	4.74%	$292 - $373	4.13%	$24 - $34	4.67%	$825 - $1,169	4.60%	$594 - $845	4.49%	$70 - $98	4.66%	$525 - $722	4.72%	1,203 - 1,687	5.01%
24	$306 - $591	5.15%	$168 - $292	4.28%	$12 - $24	4.95%	$412 - $825	5.01%	$320 - $594	4.76%	$38 - $70	4.90%	$284 - $525	4.95%	649 - 1,203	5.28%
25	Up to $306	6.20%	Up to $168	4.82%	Up to $12	5.69%	Up to $412	5.99%	Up to $320	5.38%	Up to $38	5.60%	Up to $284	5.67%	Up to 649	6.14%

	B-1 Value	Portfolio Ranking	B-2 Value	Portfolio Ranking	B-3 Value	Portfolio Ranking	B-4 Value	Portfolio Ranking	B-5 Value	Portfolio Ranking	B-6 Value	Portfolio Ranking	B-7 Value	Portfolio Ranking	B-8 Value	Portfolio Ranking
Proxy Group of Seven Water Companies	$ 5,963	11	$ 1,819	12	$ 134	15	$ 8,265	11	$ 5,886	11	$ 384	15	$ 899	22	1,607	23
Utilities Inc, of Florida	$ 220	25	$ 122	25	$ 4.13	25	$ 282	25	$ 189.98	25	$ 13.81	25	$ 37.28	25	100	25
Indicated Risk Premium	3.43%		1.57%		2.00%		3.11%		2.21%		1.92%		1.13%		1.13%	

Sources of Information:
Duff & Phelps 2020 Cost of Capital Navigator
SNL Financial
Company Annual Reports

Utilities, Inc of Florida
Frequency Distribution of Market Risk Premium, 1926 - 2019



Year	Large Company Stocks Total Returns Jan-Dec*	Long-Term Government Bond Income Returns Jan-Dec*	MRP Jan-Dec*
1926	0.1162	0.0373	0.0789
1927	0.3749	0.0341	0.3408
1928	0.4361	0.0322	0.4039
1929	-0.0842	0.0347	-0.1189
1930	-0.2490	0.0332	-0.2822
1931	-0.4334	0.0333	-0.4667
1932	-0.0819	0.0369	-0.1188
1933	0.5399	0.0312	0.5087
1934	-0.0144	0.0318	-0.0462
1935	0.4767	0.0281	0.4486
1936	0.3392	0.0277	0.3115
1937	-0.3503	0.0266	-0.3769
1938	0.3112	0.0264	0.2848
1939	-0.0041	0.0240	-0.0281
1940	-0.0978	0.0223	-0.1201
1941	-0.1159	0.0194	-0.1353
1942	0.2034	0.0246	0.1788
1943	0.2590	0.0244	0.2346
1944	0.1975	0.0246	0.1729
1945	0.3644	0.0234	0.3410
1946	-0.0807	0.0204	-0.1011
1947	0.0571	0.0213	0.0358
1948	0.0550	0.0240	0.0310
1949	0.1879	0.0225	0.1654
1950	0.3171	0.0212	0.2959
1951	0.2402	0.0238	0.2164
1952	0.1837	0.0266	0.1571
1953	-0.0099	0.0284	-0.0383
1954	0.5262	0.0279	0.4983
1955	0.3156	0.0275	0.2881
1956	0.0656	0.0299	0.0357
1957	-0.1078	0.0344	-0.1422
1958	0.4336	0.0327	0.4009
1959	0.1196	0.0401	0.0795
1960	0.0047	0.0426	-0.0379
1961	0.2689	0.0383	0.2306
1962	-0.0873	0.0400	-0.1273
1963	0.2280	0.0389	0.1891
1964	0.1648	0.0415	0.1233
1965	0.1245	0.0419	0.0826
1966	-0.1006	0.0449	-0.1455
1967	0.2398	0.0459	0.1939
1968	0.1106	0.0550	0.0556
1969	-0.0850	0.0595	-0.1445
1970	0.0386	0.0674	-0.0288
1971	0.1430	0.0632	0.0798
1972	0.1899	0.0587	0.1312
1973	-0.1469	0.0651	-0.2120
1974	-0.2647	0.0727	-0.3374
1975	0.3723	0.0799	0.2924
1976	0.2393	0.0789	0.1604
1977	-0.0716	0.0714	-0.1430
1978	0.0657	0.0790	-0.0133
1979	0.1861	0.0886	0.0975
1980	0.3250	0.0997	0.2253
1981	-0.0492	0.1155	-0.1647
1982	0.2155	0.1350	0.0805
1983	0.2256	0.1038	0.1218
1984	0.0627	0.1174	-0.0547
1985	0.3173	0.1125	0.2048
1986	0.1867	0.0898	0.0969
1987	0.0525	0.0792	-0.0267
1988	0.1661	0.0897	0.0764
1989	0.3169	0.0881	0.2288
1990	-0.0310	0.0819	-0.1129
1991	0.3047	0.0822	0.2225
1992	0.0762	0.0726	0.0036
1993	0.1008	0.0717	0.0291
1994	0.0132	0.0659	-0.0527
1995	0.3758	0.0760	0.2998
1996	0.2296	0.0618	0.1678
1997	0.3336	0.0664	0.2672
1998	0.2858	0.0583	0.2275
1999	0.2104	0.0557	0.1547
2000	-0.0910	0.0650	-0.1560
2001	-0.1189	0.0553	-0.1742
2002	-0.2210	0.0559	-0.2769
2003	0.2868	0.0480	0.2388
2004	0.1088	0.0502	0.0586
2005	0.0491	0.0469	0.0022
2006	0.1579	0.0468	0.1111
2007	0.0549	0.0486	0.0063
2008	-0.3700	0.0445	-0.4145
2009	0.2646	0.0347	0.2299
2010	0.1506	0.0425	0.1081
2011	0.0211	0.0382	-0.0171
2012	0.1600	0.0246	0.1354
2013	0.3239	0.0288	0.2951
2014	0.1369	0.0341	0.1028
2015	0.0138	0.0247	-0.0109
2016	0.1196	0.0230	0.0966
2017	0.2183	0.0267	0.1916
2018	-0.0438	0.0282	-0.0720
2019	0.3149	0.0255	0.2894
Average	0.1209	0.0494	0.0715
Std. Dev.	0.1976	0.0262	0.1987

Source: Duff & Phelps, 2020 SBBI Yearbook, Appendix A-1, A-7

MRP

Bin	*Frequency*	*Cumulative %*
-50.00%	0	0.0%
-47.50%	0	0.0%
-45.00%	1	1.1%
-42.50%	0	1.1%
-40.00%	1	2.1%
-37.50%	1	3.2%
-35.00%	0	3.2%
-32.50%	1	4.3%
-30.00%	0	4.3%
-27.50%	2	6.4%
-25.00%	0	6.4%
-22.50%	0	6.4%
-20.00%	1	7.4%
-17.50%	0	7.4%
-15.00%	3	10.6%
-12.50%	6	17.0%
-10.00%	5	22.3%
-7.50%	0	22.3%
-5.00%	3	25.5%
-2.50%	6	31.9%
0.00%	3	35.1%
2.50%	3	38.3%
5.00%	4	42.6%
7.50%	2	44.7%
10.00%	9	54.3%
12.50%	5	59.6%
15.00%	2	61.7%
17.50%	6	68.1%
20.00%	4	72.3%
22.50%	3	75.5%
25.00%	7	83.0%
27.50%	1	84.0%
30.00%	7	91.5%
32.50%	1	92.6%
35.00%	2	94.7%
37.50%	0	94.7%
40.00%	0	94.7%
42.50%	2	96.8%
45.00%	1	97.9%
47.50%	0	97.9%
50.00%	1	98.9%
51.00%	1	100.0%
Count:	94	

		Rank	
MRP	11.94%	57.60%	42.40%

Utilities, Inc of Florida
Measurement of the Coefficent of Variation in Net Profit for
Mr. D'Ascendis' Utility and Non-Utility Proxy Groups

Net Profit, as reported in Value Line Investment Survey, Standard Edition

Proxy Group of Seven Water Companies	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Standard Deviation	Average	Coefficient of Variaton
American States Water Co.	41.40	42.00	54.10	62.70	61.10	60.50	59.70	69.40	63.90	84.30	11.86	59.91	0.1980
American Water Works Company Inc	267.80	304.90	374.30	369.30	429.80	476.00	468.00	426.00	567.00	621.00	103.72	430.41	0.2410
California Water Service Group	37.70	36.10	42.60	47.30	56.70	45.00	48.70	67.20	65.60	63.10	10.86	51.00	0.2129
Essential Utilities, Inc.	124.00	144.80	153.10	205.00	213.90	201.80	234.20	239.70	192.00	224.50	37.69	193.30	0.1950
Middlesex Water Co.	14.30	13.40	14.40	16.60	18.40	20.00	22.70	22.80	32.50	33.90	6.91	20.90	0.3308
SJW Group	15.80	20.90	22.30	23.50	51.80	37.90	52.80	59.20	38.80	38.50	14.38	36.15	0.3978
York Water Co.	8.90	9.10	9.30	9.70	11.50	12.50	11.80	13.00	13.40	14.50	1.91	11.37	0.1678
												Mean	0.2490
												Median	0.2129

Proxy Group of Twelve Non-Price Regulated Companies	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Standard Deviation	Average	Coefficient of Variaton
Casey's Gen'l Stores	94.60	116.80	110.60	134.50	183.00	226.00	177.50	143.00	203.90	**225.00**	45.66	161.49	0.2827
Cboe Global Markets	99.40	139.40	157.40	176.00	189.70	205.00	185.70	400.60	425.20	370.80	111.56	234.92	0.4749
Cracker Barrel	85.30	91.10	107.90	119.00	135.10	163.90	189.30	201.90	222.20	223.40	50.49	153.91	0.3280
Campbell Soup	844.00	846.00	783.00	786.00	800.00	831.00	914.00	932.00	868.00	696.00	65.08	830.00	0.0784
Dunkin' Brands Group	95.90	101.70	149.70	165.80	186.40	188.00	208.70	223.80	246.30	265.10	53.58	183.14	0.2926
Darden Restaurants	414.20	478.70	476.50	412.60	183.20	342.90	456.60	504.50	606.20	729.60	138.33	460.50	0.3004
Hormel Foods	409.00	474.20	500.10	526.20	602.70	713.80	890.10	846.70	1,012.10	978.80	211.68	695.37	0.3044
Lancaster Colony	115.00	106.40	95.80	109.20	101.00	101.70	121.80	115.30	135.30	150.50	16.02	115.20	0.1391
Lilly (Eli)	5,239.50	4,913.50	3,784.00	4,502.60	2,987.60	3,656.30	3,735.60	4,530.40	5,734.60	5,568.20	864.18	4,465.23	0.1935
Lamb Weston Holdings	NA	NA	NA	NA	NA	NA	NA	326.90	416.80	478.60	62.28	407.43	0.1529
Altria Group	3,905.00	3,390.00	4,180.00	4,535.00	5,070.00	5,243.00	5,925.00	6,531.00	7,539.00	7,895.90	1,449.15	5,421.39	0.2673
Valvoline Inc.							273.00	283.00	254.00	263.00	10.85	268.25	0.0404
												Mean	0.2379
												Median	0.2750

Source of Information: Value Line Investment Survey, Standard Edition

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by E-mail to the following parties this 14th day of December, 2020:

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