Exhibit No.: _____
Issue(s): Rate of Return (ROR)/Capital Structure
Witness/Type of Exhibit: Murray/Surrebuttal
Sponsoring Party: Public Counsel
Case No.: WR-2020-0344

SURREBUTTAL TESTIMONY

OF

DAVID MURRAY

Submitted on Behalf of the Office of the Public Counsel

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2020-0344

** **

Denotes Confidential Information that has been Redacted

February 9, 2021

PUBLIC

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Missouri-American Water Company's Request for Authority to Implement General Rate Increase for Water and Sewer Service Provided in Missouri Service Areas	)))))	Case No. WR-2020-0344

VERIFICATION OF DAVID MURRAY

David Murray, under penalty of perjury, states:

1. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony in the above-captioned case.

2. My answer to each question in the attached surrebuttal testimony is true and correct to the best of my knowledge, information, and belief.

*/s/David Murray*_____
David Murray
Utility Regulatory Manager
Office of the Public Counsel

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SURREBUTTAL TESTIMONY

OF

DAVID MURRAY

MISSOURI AMERICAN WATER COMPANY

FILE NO. WR-2020-0344

Q. What is your name and business address?

A. My name is David Murray and my business address is P.O. Box 2230, Jefferson City, Missouri 65102.

Q. Are you the same David Murray who filed direct and rebuttal testimony in this case?

A. Yes.

Q. What is the purpose of your testimony?

A. I will respond to the rebuttal testimonies of the following Missouri American Water Company ("MAWC") witnesses: Anne L. Bulkley and James Merante. I will also respond to the rebuttal testimony of Staff witness Seoung Joun Won, PhD (Dr. Won).

Q. Has your review of any of the witnesses' rebuttal testimonies caused you to change any of your positions?

A. No.

Q. What are your main conclusions after reviewing the various parties' rebuttal testimonies as it relates to rate of return ("ROR")?

A. MAWC's views on maintaining a conservative capital structure for ratemaking are at odds with its parent company's, American Water Works Company ("American Water"), financial strategies. American Water has become more aggressive in its use of leverage (i.e. debt) in its capital structure over the last several years, but at the same time, MAWC's internally managed capital structure has become more conservative. This increasing divergence allows American Water to earn an even larger margin over its cost of capital as

it takes advantage of the low cost of capital at the holding company, while charging MAWC for a higher-cost capital structure. MAWC's witnesses indicate that if the Commission authorizes a capital structure consistent with American Water's on a consolidated basis, this would result in less investment in MAWC because it competes against sister subsidiaries for capital. I requested specific information from MAWC to determine specifically how they would alter investment in MAWC, but I did not receive definitive responses.[1]

Furthermore, when OPC asked for financial information on MAWC's sister subsidiaries, MAWC objected to such requests and provided only minimal information.[2] Regardless, MAWC ratepayers should not pay for a significantly higher ROR over MAWC's cost of capital simply because other jurisdictions are allowing a significant premium over the cost of capital. As I explained in my rebuttal testimony, American Water has other jurisdictions that rightfully recognize that American Water's consolidated capital structure is the true market-tested and cost efficient capital structure (i.e. Virginia and New York). This Commission should find the same.

The Company and Staff (to a lesser extent) do not give due consideration to the lower cost of capital in their recommended allowed ROEs. In fact, Ms. Bulkley suggests that the capital market conditions that occurred at the onset of the COVID-19 pandemic are more typical of what she expects for utility securities in the future. Although I will not claim to know how utility securities will perform in the future, it is a matter of fact, that before the onset of the COVID-19 pandemic, utility stock valuations had reached all-time highs due to historically low interest rates. While utility stock valuations, overall, have not returned to these historical all-time highs, American Water's has. Considering long-term interest rates are even lower than they were prior to the COVID-19 pandemic, there is little reason to expect that U.S. capital markets will return to the higher capital costs of the past as Ms. Bulkley predicts. This entire argument is also a distraction from what should be the Commission's key focus: setting MAWC's ROR consistent with current known and

[1] MAWC Responses to OPC Data Request Nos. 3025 and 3026.
[2] MAWC January 25, 2021 objection to OPC Data Request No. 3034.

measurable capital market conditions, not Ms. Bulkley's speculation as to what they may be in the future. The Commission should recognize the reality of the current capital market conditions and authorize an ROE consistent with that which it just authorized Empire, which also rightfully recognized the current low cost of capital to utilities.

ANNE BULKLEY AND JAMES MERANTE

Q. Can you summarize Ms. Bulkley's and Mr. Merante's criticisms of your testimony?

A. Yes. Ms. Bulkley and Mr. Merante claim my recommendation to set MAWC's allowed ROR based on capital structure ratios similar to American Water's will impair MAWC's credit profile and its ability to attract capital from its parent company, American Water. In fact, they claim that if MAWC's capital structure were similar to American Water's, and if MAWC issued its own independent debt to third-party debt investors, its debt would be priced consistent with a junk bond credit rating (Ba1).[3] While Ms. Bulkley and Mr. Merante did not provide quantitative support for their positions in their rebuttal testimony, in response to OPC DR No. 3027, they indicated that if MAWC had a capital structure similar to American Water and issued debt independently, it would have an effective cost that is over 200 basis points (2%) higher than the debt it receives from AWCC.

Ms. Bulkley indicates that the current capital market conditions do not support my recommended allowed ROE. She claims that utility capital markets in 2020 support a higher allowed ROE than in 2017 because of increased volatility in light of the impact of the pandemic. She also claims that my recommended ROE does not match the underlying capital structures of my proxy group. She argues my ROE recommendation should be higher due to her opinion that my recommended capital structure is more leveraged than my proxy group's capital structures. She also believes I should have realized my COE estimates were unreasonable based on the fact that allowed ROEs are higher.

[3] MAWC's response to OPC DR No. 3030 and 3032.

Q. Ms. Bulkley suggests that the Commission should reject your recommended use of American Water's consolidated capital structure ratios for MAWC because it is inconsistent with the Commission's decision in the Spire Missouri rate case, Case No. GR-2017-0215. Should the Commission reject your recommended capital structure for this reason?

A. No. First, I still maintain that my recommended use of Spire's consolidated capital structure to set Spire Missouri's ROR was appropriate. That being said, there are many significant differences between Spire Missouri's circumstances and MAWC's circumstances. As I will explain, MAWC's circumstances are more similar to that of Liberty Utility Company's ("LUCo") Missouri subsidiaries, which I compared and contrasted in the recent The Empire District Electric Company ("Empire") case, Case No. ER-2019-0374 and the Liberty Utilities (Midstates Natural Gas) Corp. ("Liberty Midstates") case, Case No. GR-2018-0013.

Q. What reasons did the Commission cite for adopting Spire Missouri's capital structure rather than Spire's consolidated capital structure?

A. The Commission, in supporting its decision not to adopt the use of Spire Inc.'s consolidated capital structure, stated the following in its Report and Order:

> 7. Spire Missouri has an independently determined capital structure in that its debt is secured by its own assets and not the assets of Spire Inc. or any of Spire Inc.'s other subsidiaries. Additionally, Spire Missouri's assets do not guarantee the long-term debt of its parent or of any of Spire Inc.'s other public utilities or of Spire Marketing or Spire STL Pipeline. Further, the Commission must approve any long term debt issuances made by Spire Missouri.
>
> 8. Spire Missouri's stand-alone capital structure supports its own bond rating.

It is important to emphasize that Spire Missouri issues debt directly to third-party investors on a consistent and continuous basis, with third-party debt investors trading some of this debt in over-the-counter dealer markets. All of Spire Missouri's long-term debt is sold to third-party investors. Unlike MAWC, Spire Missouri does not have affiliate debt financing transactions with its parent company or a financing subsidiary created for purposes of

issuing debt on behalf of the parent and its subsidiaries other than its commercial paper borrowings. Because Spire Missouri continues to sell debt directly to third-party debt investors, it maintains its own credit rating.

None of the above circumstances apply to MAWC. MAWC has not issued traditional corporate debt to third-party debt investors since the 1990s. Over 97% of the debt shown on MAWC's balance sheet are affiliate notes between MAWC and AWCC. AWCC is the entity that issues bonds directly to third-party debt investors and then lends these proceeds to American Water and its subsidiaries. Because American Water guarantees these bonds,[4] the terms of the AWCC bonds are based on debt investors' evaluation of American Water's business risk and financial risk (i.e. its overall credit quality). Consequently, only American Water needs a credit rating in order to market these third-party bonds. The AWCC bonds are not secured by a lien on MAWC's assets or American Water's equity ownership in MAWC.

MAWC's circumstances are more similar to those of Liberty Utilities Water Company ("Liberty Water"), The Empire District Electric Company ("Empire") and Liberty Midstates. LUCo has consolidated all of the debt financing needs of its regulated utility subsidiaries at the LUCo level, which also uses a finance subsidiary Liberty Utilities Finance GP1 ("LUF") to issue bonds directly to third-party debt investors. LUF's credit quality is based on LUCo's credit quality because LUCo guarantees the bonds issued by LUF. Of LUCo's three Missouri utility subsidiaries, only Empire still has legacy third-party debt it had issued prior to LUCo acquiring it. The Commission has determined that LUCo's capital structure is appropriate to set the allowed ROR for all three of its Missouri subsidiaries. To the extent the Commission desires guidance from its own recent decisions on the most appropriate capital structure for purposes of setting MAWC's allowed ROR, its decisions for LUCo's regulated utilities in Missouri are more comparable than its decision in the Spire Missouri case.

[4] American Water Works Company's December 31, 2019, SEC 10-K Filing, p. 63.

Q. Are there other issues that illustrate MAWC's circumstance is more similar to the circumstances of Empire, Liberty Water and Liberty Midstates (collectively, "Liberty Missouri Cos.") as compared to Spire Missouri?

A. Yes. MAWC and the Liberty Missouri Cos. are managed by service company employees. American Water Services Company ("AWSC") employees manages all of the affiliate financing transactions completed to achieve certain targeted internal capital structures. The same is true for the Liberty Missouri Cos. managed by the Liberty Utility Services Company ("LUSC"). These internal capital structures are targeted for ratemaking, not for raising third-party debt capital and/or targeting a cost-efficient capital structure. The only entity that maintains a market-tested, objective capital structure, which appropriately and fairly captures the amount of debt capacity afforded by Missouri's low-risk regulated utility operations, is that of the entity issuing debt directly to third-party debt investors. As OPC has proven, LUSC's and AWSC's objective when setting their internal capital structures is to maintain equity ratio ratios it believes the Commission will allow. Based on my experience in other cases, this appears to be in the 52% to 53% range. Considering the extremely low cost of debt capital in the current markets, keeping allowed equity ratios at this level for entities that don't issue their own debt capital only magnifies the ability of holding companies to earn returns much higher than their costs of capital. The delta between American Water's equity ratio and what it requests for MAWC's rates has increased to 12% in this case (53% - 41%), as compared to 7.04% in the 2017 rate case (51.03%[5] - 43.99%[6]) and 5.38% in the 2015 rate case (52.37%[7] - 46.99%[8]).

[5] Case No. WR-2017-0285, Scott W. Rungren Direct Testimony, Schedule SWR-1.
[6] *Id.,* Staff COS Report, Appendix 2, Schedule 6.
[7] Case No. WR-2015-0301, Scott W. Rungren Direct Testimony, Schedule SWR-1
[8] *Id.*, Staff COS Report, Appendix 2, Schedule 6.

Q. Ms. Bulkley also criticizes your recommendation to include short-term debt in MAWC's authorized capital structure. She claims that you are "recycling" your proposal of including short-term debt in the capital structure in the Spire Missouri rate case. Are you using a "recycled proposal" as she claims?

A. No. The nuances of MAWC's situation are much different than Spire Missouri's situation as it relates to short-term debt. Spire Missouri is a natural gas distribution company. Spire Missouri's short-term debt needs are related to the specific nature of a gas distribution company, but also include the use of short-term debt to fund construction work in progress ("CWIP"). Short-term debt has consistently made up around 10% of Spire Missouri's total capital structure over time. This is a high proportion of short-term debt for a utility company that mainly uses short-term debt as a bridge for CWIP (short-term debt typically represents about 5% of MAWC's and American Water's capital structure). However, Spire Missouri uses a significant amount of short-term debt to finance its gas inventories and other gas procurement transactions in order to provide gas during the winter heating season. In the 2017 Spire Missouri gas rate case, Spire Missouri proposed that these gas investments be removed from the purchased gas adjustment (PGA)/actual cost adjustment (ACA) rider and included in rate base in the general rate case. This specific circumstance caused me to recommend including short-term debt in the ratemaking capital structure because it supported these assets. However, because Spire Missouri appropriately gave 100% weight to short-term debt for the AFUDC rate applied to CWIP, I deducted CWIP balances from the amount of short-term debt I recommended be included in Spire Missouri's capital structure.

MAWC's use of short-term debt proceeds provided by AWCC is almost entirely attributable to CWIP. However, OPC discovered that MAWC has not been following the Commission USOA (NARUC USOA) applicable to it as it relates to assigning 100% weight to short-term debt balances for purposes of determining the AFUDC rate. Therefore, to the extent this is not ordered to be changed, I am addressing the inherent unfairness of MAWC's use of short-term debt without due consideration in customers' rates. In fact, MAWC is the only major utility that OPC is aware of that has not followed

the NARUC USOA (water utilities) or FERC USOA (gas and electric utilities) guidelines the Commission has made applicable to it as it relates to the proper treatment of short-term debt for calculating the AFUDC rate.

Q. Ms. Bulkley asserts that if the Commission adopts your recommended more leveraged capital structure, it needs to authorize a much higher ROE, do you agree?

A. No. Ms. Bulkley claims that if MAWC were to target a similar capital structure to American Water's, equity investors would require a higher equity risk premium to be compensated for the financial risk (i.e. additional debt in the capital structure) associated with it. If this were true, then American Water's stock should not be trading at the highest P/E ratio (approximately 38x to 39x during the week of January 19, 2021) compared to a range of 32x to 34x for all of the other water utilities in the sector (32x to 34x). If American Water's investors viewed its more leveraged capital structure as a significant risk factor, then this would cause them to discount American Water's stock to recognize this risk.

Q. Ms. Bulkley claims that you discarded your COE analysis for purposes of your recommended allowed ROE.[9] Did you discard your COE analysis?

A. No. I recognize that my allowed ROE recommendation is not at parity with my COE estimate, but this does not mean I discarded my COE estimates in determining a reasonable recommended allowed ROE. COE analysis using complex methods, such as DCFs, CAPMs and risk premium methods, can result in a wide range of COE estimates due to various assumptions (industry growth rates and equity risk premiums). However, there are simple, straightforward reasonableness tests (standard risk premium added to a company's own bond yield) and corroborating practical information (stock analysts' utility cost of equity assumptions) that can assist in determining the reasonableness of COE estimates. Ms. Bulkley believes allowed ROEs are the proper barometer to test the reasonableness of COE estimates. If utility investors followed Ms. Bulkley's advice, utility stocks would be wildly overpriced. They are not. I am not attempting to use methods and assumptions to target a desired allowed ROE. I am providing a reasonable, objective and logical analysis

[9] Bulkley Direct, p. 4, lines 10-14.

to provide the Commission information on utility companies' current cost of capital. I have observed and recognized that investors expect allowed ROEs to be higher than the COE, but they also expect allowed ROEs to be pressured as the cost of capital continues to decline and remain low.

Consequently, my COE estimate of around 6% supports at least an incremental reduction to allowed ROEs for Missouri's major utility companies. The Commission recognized this reduction in Empire's recently allowed ROE of 9.25%. I simply recommend that the Commission set MAWC's ROE at the same level considering the fact that I conclude that its COE, recognizing its use of a higher proportion of debt in its capital structure, is approximately the same as that I estimated for Empire.

Q. Ms. Bulkley claims that recent heightened market volatility justifies the Commission authorizing a higher ROE in this case than conditions warranted in 2017.[10] Do current market conditions warrant a higher allowed ROE?

A. No. Later in my testimony, I'll provide a simple example of recent bond market yields in 2020 compared to yields in 2017 to explain the fallacy of Ms. Bulkley's logic. While volatility certainly causes investors to be less certain as to the range of their expected returns, if the overall level of the cost of capital has declined, which it has, then if bond yields are trading in a wider range at a lower level, this simply translates into uncertainty as to whether an investor will lock in a higher "low return" or a lower "low return." Because of the lower alternative returns offered by bonds, an investor will accept a lower return to invest in American Water.

[10] *Id.,*p. 4, lines 22-28.

Q. Ms. Bulkley suggests that if MAWC's capital structure were managed to a level consistent with American Water's on a consolidated basis, this would "likely result in increased cost for ratepayers."[11] Does she provide support for how this would materialize?

A. No. She apparently believes MAWC's business risk is significantly higher than American Water's consolidated business risk. Based on her assessment of MAWC's business risk, if MAWC's issued the same proportion of debt as American Water to fund its capital structure, it would cause MAWC's credit profile to be so risky that if it were required to access debt markets independently, the costs would be exorbitant.

As I explained in my rebuttal testimony, California Water Services Group ("California Water") and SJW Group ("SJW") are smaller companies with geographically constrained operations. Almost all of California Water's operations are located in California and a majority (over 50%) of SJW's operations are in California. Each of these companies have a consolidated common equity ratio below 40%, but still have strong S&P corporate credit ratings ('A+' for California Water and 'A-' for SJW). However, I note the California Public Service Commission ("CPSC") did allow equity ratios of 53.4% and 53.28%, respectively, for these companies in their last cost of capital proceeding. The CPSC applied an authorized ROE of 8.9% and 9.2%, respectively, to these equity ratios. I am not certain as to why the CPSC would allow such high common equity ratios when the companies are clearly much more leveraged. Although I have not analyzed the details of these CPSC rate proceedings, I can confirm that SJW was much more conservatively financed before it acquired Connecticut Water Services Company in 2019. As it relates to California Water, while it was more conservatively financed as well, its common equity ratio, at the time the CPSC made its rate determinations, was around 45%.

Because California Water has a similar amount of leverage as American Water and it primarily operates in one jurisdiction, California, I reviewed its most recent debt financing transaction to determine if it incurred significantly higher cost of debt capital than the cost

[11] *Id.,* p. 13, lines 6-7.

of a recent debt issuance AWCC assigned to MAWC. California Water issued $400 million of first mortgage bond debt in June 2019 in three separate tranches – $100 million of 10-year bonds at a 3.4% coupon, $100 million of 30-year bonds at a 4.07% coupon and $200 million of 40-year bonds at a 4.17% coupon. In May 2019, AWCC assigned $75 million of 30-year debt to MAWC based on an implied 4.15% coupon. Consequently, at least as it relates to this proxy, Ms. Bulkley's opinion is not supported.

Q. Did you issue data requests to Ms. Bulkley and Mr. Merante to attempt to further investigate their rebuttal testimony that claims MAWC would incur higher capital costs if it issued its own debt directly to third-party debt investors?

A. Yes. I issued several data requests to investigate Ms. Bulkley's and Mr. Merante's testimony indicating MAWC would incur higher capital costs if it were a stand-alone company with a capital structure similar to American Water's. MAWC's response to OPC DR No. 3027 provided a comparison of anticipated costs of receiving $100 million of debt proceeds from AWCC versus MAWC issuing debt directly to third-party debt investors through an SEC registered mortgage bond or an unregistered private placement bond. This comparison layered many additional costs on a MAWC third-party debt issuance, such as five additional full-time employees and outside legal counsel, apparently dedicated entirely to MAWC's financing needs, at an annual expense of $1,300,000. This translates into an additional 1.3% added to their assumed cost of issuing the bond. The other significant cost driver in the DR response was Ms. Bulkley's and Mr. Merante's assumption that MAWC's bonds would be rated no higher than 'Baa3' (equivalent to S&P's 'BBB-' rating). However, Mr. Merante indicated this was a conservative estimate because he estimates Moody's may rate MAWC's debt as low as 'Ba1' (junk bond rating). Mr. Merante indicates MAWC would be rated below investment grade due to the following factors: MAWC's higher business-risk profile, as demonstrated by its inability to earn the revenues it has been authorized and regulatory lag caused by the use of a historical test year, and his estimate the MAWC would have an FFO/debt ratio of 11.1%.[12]

[12] MAWC Response to OPC DR No. 3028

Q. Did you estimate MAWC's FFO/debt ratios in your direct testimony?

A. Yes. I indicated that MAWC's FFO/debt ratios have been in the range of 19.6% to 21.6% in 2018 and 2019. These ratios are higher than the 17.1% Mr. Merante calculated for 2020.

Q. Why?

A Mr. Merante's DR response shows approximately $170 million of additional debt for year-end 2020 as compared the amount I calculated for year-end 2019. This difference is attributed to the following: (1) $110 million of additional long-term debt, (2) $35 million of additional short-term debt, and (3) $25.4 million of a negative cash balance. Mr. Merante added $25.4 million to his debt balance to reflect a negative cash balance. This is inconsistent with the Company's claim that it has $71.2 million of cash available to it from the $500 million credit facility AWCC executed to provide liquidity during the pandemic. This $71.2 million swing in MAWC's debt balance causes Mr. Merante's FFO/debt ratio to be 18.5% rather than 17.1%. Regardless, FFO/debt ratios in this range are consistent with an 'A' rating from both Moody's and S&P.

Q. How much of a pro forma decrease in FFO did Mr. Merante assume would occur if the Commission adopted your more leveraged capital structure recommendation?

A. Mr. Merante estimates a decrease in MAWC's FFO of $26.5 million if the Commission adopts my more leveraged capital structure recommendation compared to MAWC's year-end December 31, 2020 per books capital structure, which indicates MAWC has a ** _____ ** common equity ratio.

Q. How much of a pro forma decrease did you estimate for MAWC's FFO if the Commission adopted your more leveraged capital structure recommendation?

A. In my direct testimony, I estimated MAWC's FFO would be $15.7 million lower if the Commission adopted MAWC's less leveraged per books capital structure, which I estimated to contain 51.1% common equity at the time I did my analysis. For purposes of my estimated reduction to MAWC's FFO, I assumed an ROE of 9.25% for both capital structures.

Q. Do you know why Mr. Merante estimated a much larger reduction to FFO?

A. Yes. Mr. Merante estimated the reduction in MAWC's FFO based on an assumed 10.5% allowed ROE, which is highly unlikely. If I use an allowed ROE of 9.25% in his calculation, this would cause a reduction in FFO of $23.3 million. This would cause a pro forma FFO/debt ratio of 12.1% based on Mr. Merante's methodology. Finally, Mr. Merante assumed a 39% equity ratio rather than the 41.1% I recommend if MAWC begins to properly calculate the AFUDC rate. Making this adjustment results in a pro forma FFO/debt ratio of 12.8%.

Q. Have you updated your actual and forma FFO/debt ratios calculations to reflect MAWC's 2020 financial statement information?

A. Yes. Based on my analysis of MAWC's 2020 financial statement information, I determined MAWC's FFO/debt for 2020 was approximately ** ____ ** based on average debt for the past year and ** _____ ** based on year-end debt. This is consistent with the FFO/debt ratios for the prior years. These ratios are consistent with an 'A' rating from Moody's and S&P. Use of my recommended capital structure compared to the Company's recommended capital structure (assuming same ROE in both capital structures) reduces the Company's revenue requirement by $16.7 million. Assuming MAWC continues to target an internal capital structure that contains 53% common equity, this would result in a pro form FFO/debt ratio of approximately 17% based on average debt and 15.6% based on year-end debt, which is still consistent with an 'A' rating for both Moody's and S&P. If MAWC adjusts its capital structure to be consistent with American Water's capital structure, this would result in an FFO/debt ratio of approximately 13.7% based on average debt and 12.5% based on year-end debt, which is consistent with an S&P 'A-' rating and a Moody's 'Baa' rating.

Q. Ms. Bulkley indicates you recommend that MAWC's FFO/debt ratio be "reduced to now [sic] lower than the AWK ratio."[13] Is this an accurate representation of your testimony?

A. No. I simply indicated that if the Commission adopted my recommended capital structure and ROE, MAWC's pro forma FFO/debt ratios would not be lower than American Water's on a consolidated basis. My recommended ROR did not depend on this finding. Rather, this finding supported the reasonableness of my ROR recommendation because it indicates that MAWC's estimated FFO/debt would support a strong investment grade credit, which is one of the primary considerations of *Hope* and *Bluefield*.

Q. Ms. Bulkley indicates that American Water can carry more leverage than its subsidiaries due to the fact that it owns sixteen regulated water utility subsidiaries and it has diversity in its operations because of its market-based business.[14] Do you agree with her assertions?

A. I agree that having operations in several jurisdictions diversifies risks, but it certainly does not justify a 12% to 13% difference in American Water's common equity ratio compared to that which it requests MAWC's ROR be determined. Rating agencies (Moody's and S&P) have less stringent financial ratio benchmarks for regulated water utilities, whether stand-alone or part of a holding company, as compared to regulated electric and gas utilities (with a few exceptions for gas utilities). This explains why even water utility companies that have FFO/debt ratios in the 10% to 12% range still have at least an 'A-' credit rating. Rating agencies also rarely look favorably on non-regulated businesses as Ms. Bulkley suggests. S&P indicated the following as key risk to American Water's credit quality: "The recoverability of costs for the company's nonutility operations is less certain than for its regulated utilities."[15]

[13] Bulkley Direct, p. 14, ll. 11-12.
[14] Bulkley Direct, p. 15, ll. 1-11.
[15] Millman, Sloan, "American Water Works Co. Inc," S&P Global Ratings, June 19, 2020.

Q. Ms. Bulkley indicates that if MAWC is "allowed to maintain its requested stand-alone capital structure," this benefits the customers by improving financial flexibility.[16] Do you agree with her statement?

A. No. First, if the Commission authorizes a more cost efficient capital structure than that which AWSC targets for MAWC's books, this should not be interpreted as the Commission allowing or disallowing American Water's management of MAWC's capital structure. The Commission would just be determining a fair balance of common equity and debt for purposes of setting the allowed ROR.

Second, if it is beneficial to customers to have a more conservatively managed capital structure, then this needs to occur at American Water. American Water is requesting MAWC's customers partially pay for its holding $500 million in cash at the holding company. While OPC has concerns about the need to maintain this liquidity well past the period in which access to commercial paper was limited, OPC certainly recognizes that the benefits and costs of financial conservatism occur at American Water and not MAWC. If American Water reduced the proportion of leverage it maintains at the holding company, then it would be acceptable for American Water to request a higher cost of capital from MAWC's customers.

Q. Ms. Bulkley claims that it is inappropriate to apply an ROE derived from a market-based analysis of proxy companies that she suggests have less leverage than your recommended capital structure.[17] Does her criticism contradict her own testimony?

A. Yes. Ms. Bulkley analyzed capital market data of publicly-traded holding companies that own regulated operating utilities. Therefore, her cost of equity estimates are based on the business and financial risk of the holding companies, not the individual operating utilities. As I showed in Schedule DR-R-4 attached to my rebuttal testimony, three of the seven water utility companies in my proxy group (including American Water), have equity ratios below 40%. Ms. Bulkley's proxy group excluded American Water (I am not sure why

[16] Bulkley Direct, p. 16, lines 1-4.
[17] Bulkley Direct, p. 17, line 3 through page 18, line 20.

because apparently she does not consider MAWC to be similar enough to its parent to validate her circularity concern), so two of her water companies have equity ratios below 40%. One of her gas companies, South Jersey Industries has had common equity ratios in the low 30% range. While another two gas companies, New Jersey Resources Corporation and Northwest Natural Holding Company had common equity ratios below 45%.

Therefore, five of Ms. Bulkley's thirteen proxy companies have common equity ratios below 45%. I note that these common equity ratios include each company's use of short-term debt, which is a financial risk factor utility equity investors will consider when determining their required return on equity for investment in the holding company's equity. Short-term debt not only adds leverage to the balance sheet, but it is leverage that subjects the company to refinancing risk, which causes greater uncertainty in the equity investors' expected return. I note these issues because Ms. Bulkley derived her ROE estimates by analyzing the cost of equity of the holding companies and then applied her ROE estimates to her derivation of less leveraged operating subsidiary capital structures. Therefore, she is guilty of her own accusation, while I apply my ROE estimates to a capital structure similar to that which investors actually consider in determining their required market return on equity.

Q. Ms. Bulkley believes you should have done a more complete comparison of your recommended weighted ROE for MAWC to that of its subsidiaries.[18] Have you tried to do so?

A. Yes, but MAWC has not been cooperative in making this a more efficient process. I requested allowed ROE and equity ratio information in DR No. 3000. MAWC only provided allowed ROE information for its sister companies. While they did provide the docket numbers for each of their sister company rate case proceedings, I have not had a chance to review these dockets for purposes of making my recommendation in this case.

As I explained in my rebuttal testimony, American Water's investor presentations provided more information about authorized equity ratios than MAWC's DR responses. I am more

[18] Bulkley Direct, pp. 18-19.

than willing to review this information if MAWC would help make this process more efficient. In fact, I expect that this information would probably show that more American Water jurisdictions use subsidiary capital structure information than those that do not. I also suggest that if the Commission were to want to consider American Water's other authorized capital structures, OPC should also be allowed to review each of these other subsidiaries' financial statements, which MAWC has objected to providing to OPC.[19]

Q. Ms. Bulkley and MAWC witness Mr. Merante suggest MAWC will not be able to receive adequate capital if MAWC's capital structure is adjusted to match American Water's capital structure. Does this have to be the case?

A. No. Both witnesses imply that the only means to adjust MAWC's capital structure is to increase dividend payments and forego equity infusions. There are many ways to transfer capital to MAWC. Considering American Water borrows from AWCC to purchase equity in its regulated utility subsidiaries, including MAWC, the only change AWSC employees would have to make in order to transfer capital to MAWC is to provide the AWCC debt proceeds directly to MAWC through a promissory note rather than lending the funds to American Water to make equity infusions. This is a much more transparent and forthright process of capitalizing MAWC, which gives appropriate consideration to its true debt capacity and therefore, lower cost of capital.

ALLOWED ROE/COE ANALYSIS

Q. What is one of Ms. Bulkley's primary criticisms of your COE analysis?

A. She indicates that because my COE estimates are so much lower than allowed ROEs, this should have caused me to reassess the inputs/assumptions I used to estimate the COE.[20] Because she believes allowed ROEs are determined based on the absolute value of various parties' COE estimates, this apparently is an unbiased estimate of a market-determined COE.

[19] MAWC January 25, 2021 Objection to OPC DR No. 3034.
[20] Bulkley Rebuttal, p. 21, lines 14-19.

However, I have regularly observed many upwardly-biased COE estimates from ROR witnesses in utility rate cases. Because Commissions are relying on the information presented to them from expert ROR witnesses, their decisions are then biased to the extent they believe they are setting returns based on the COE. Consider that company-sponsored ROR witnesses are arguing for higher ROEs, and justifying those ROEs based on other proxy companies also advocating for higher ROEs. If ROEs are awarded based on these higher estimates, then commissions relying on average authorized ROEs from other jurisdictions will authorize ROEs that allow for an increasing margin between the utility industries' COE and earned ROE. This partially explains the "stickiness" of allowed ROEs that many equity analysts discuss in their research reports.

Q. Ms. Bulkley maintains that you dismissed your COE estimates in making your allowed ROE recommendation. Is this true?

A. No. She is correct that I didn't recommend an allowed ROE at parity with my COE estimate, otherwise I would have recommended an allowed ROE of 6%. However, I did not dismiss my COE estimates in deciding a fair and reasonable allowed ROE for MAWC. My analysis shows that if anything, the COE for water utilities may be slightly lower than it is for electric utilities due to lower business risk. However, recognizing that American Water offsets this lower business risk with a higher amount of financial risk (i.e. use of a greater proportion of debt in its capital structure), I decided it was fair and reasonable for the Commission to authorize an ROE for MAWC similar to that which it recently authorized Empire. Provided however, my ROE recommendation is applied to my recommended common equity ratio of 41.1%.

Q. Does your recommended allowed ROE allow for a significant spread over the COE?

A. Yes. My allowed ROE recommendation allows for a 325 basis points margin over my COE estimate. As I explained in my direct testimony, some utility investors have indicated that they expect the allowed ROE-to-COE spread to average approximately 225 basis points over the long-term.[21] Many utility investors have expressed concern that there is

[21] Murray Direct, p. 17, lines 4-9.

risk to current allowed ROEs due to the continued low long-term interest rate environment. In fact, many of these investors express bewilderment at the fact that long-term UST yields continue to decline, but allowed ROEs have not changed much.[22] Consequently, I consider my recommended allowed ROE of 9.25% as entirely reasonable based on past ROE-to-COE margins observed by investors.

Q. Ms. Bulkley indicates that you don't put much faith in your models.[23] Is this an accurate representation of your testimony?

A. No. I make it clear in my direct testimony that I recognize utility authorized ROEs have been higher than the COE. I used my COE estimates to inform my recommendation that MAWC's allowed ROE should not be any higher than Empire's recent allowed ROE. The models I used are consistent with those used by investors to determine a fair price to pay for a utility stock. Perhaps more importantly, the assumptions I used in my COE models are corroborated by investors.

Q. Ms. Bulkley represents that you established a range of reasonableness of 8.5% to 10.5% and that your range of reasonableness overlaps with hers from 9.75% to 10.5%.[24] Did you recommend an 8.5% to 10.5% ROE range as reasonable in this case?

A. No. I recognized that in past rate cases the Commission has typically set a zone of reasonableness for potential allowed ROEs of +/- 100 basis points around a recent average allowed ROE. Therefore, I was just indicating my understanding of the Commission's zone of reasonableness.

Q. What do you consider a reasonable zone based on current capital market conditions?

A. 8.5% to 9.25% because capital market conditions continue to support the fact that utility companies can issue capital at even lower costs than they did before the pandemic. I admit

[22] Murray Direct, p. 17, line 24 through page 18, line 2.
[23] Bulkley Rebuttal, p. 22, lines 5-7.
[24] Bulkley Rebuttal, p. 24.

that this is much clearer for utility bonds than utility stocks. However, as it relates to MAWC's parent company, American Water, I maintain the evidence is clear that it can issue equity at a lower cost than before the pandemic.

Q. Ms. Bulkley indicates that you believe that the authorized ROE in this case should be lower than it was in MAWC's 2017 rate case.[25] Does she characterize your position correctly?

A. No. As is evident from my rebuttal testimony addressing Staff witness, Dr. Won, the Commission did not officially authorize an ROE in MAWC's 2017 rate case because the parties simply specified a range (9.5% to 10.0%) as part of a global revenue requirement settlement. As OPC discovered in this case when reviewing MAWC's AFUDC calculations, apparently MAWC considered the Commission's approval of the specified ROE range as authorization to use 10.0% to capitalize CWIP. If OPC believed it was appropriate to apply an equity return to CWIP, which it does not, then we would argue it should be based on 9.5%. Therefore, if I were to use any ROE from the settlement to determine what is reasonable in this case, then it would be 9.5%. This ROE was also consistent with the Commission's 9.5% authorized ROE for the then recently concluded KCPL rate case, Case No. ER-2016-0285.

Q. What was the basis for your allowed ROE recommendation?

A. The fact that my analysis shows MAWC's cost of equity is similar to that of Empire's in its recent rate case. I clearly indicate on page 3, lines 5 through 17 of my direct testimony, that my analysis shows that the water utility industry's overall cost of capital is lower than the electric utility industry's cost of capital. Although this would seem to support authorizing MAWC a lower authorized ROE than the Commission recently authorized Empire, I explain that American Water achieves this lower cost of capital by utilizing more leverage than is typical for the electric utility industry, which causes a similar cost of equity because the higher leverage offsets the lower business risk. Although the capital market data does indicate an overall declining trend in the cost of capital since 2017, especially for

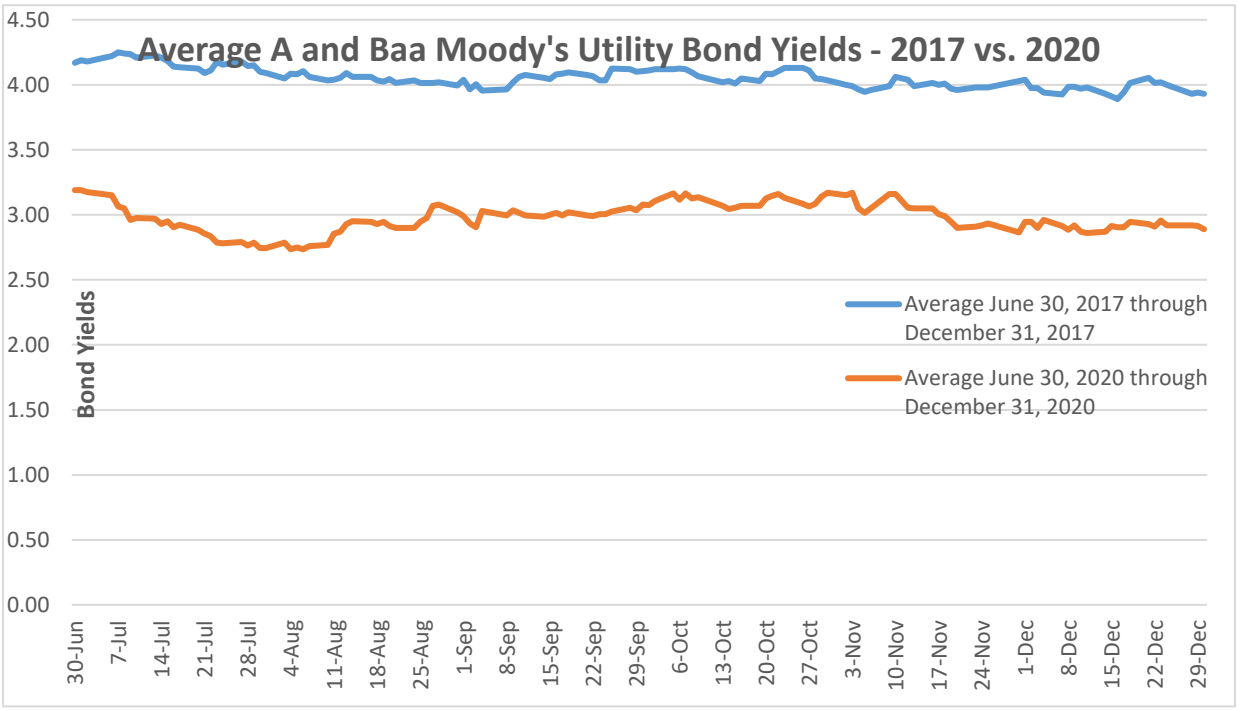
[25] Bulkley Rebuttal, p. 33 lines 1-2.

American Water, my ROE recommendation was not benchmarked off of the ROE range specified in the settlement.

Q. Ms. Bulkley suggests that current market conditions indicate a higher cost of capital compared to 2017 due to increased volatility in security prices. Does increased volatility translate into a higher cost of capital?

A. No. While I agree that increased volatility may cause an issuer to have less certainty in being able to lock in the lowest cost to issue a security during the period of volatility, this does not translate into a higher cost of capital environment when compared to a higher-cost, less volatile period.

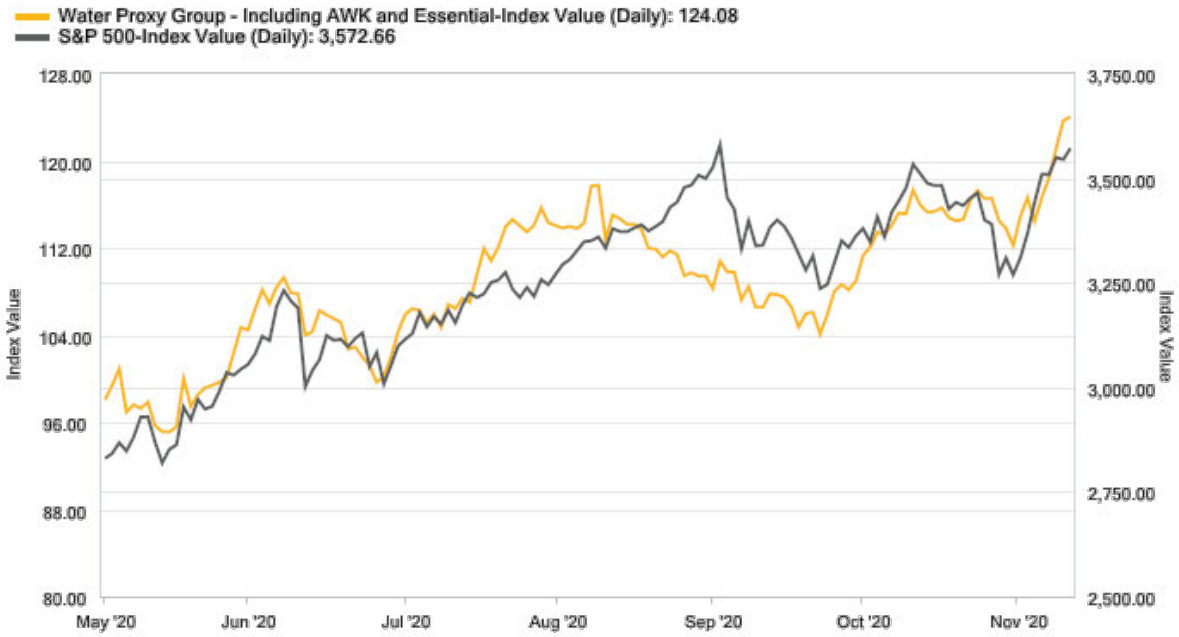
The best way to illustrate this is to compare utility bond yields in 2017 to bond yields in 2020. Because of the extreme fluctuations at the onset of the pandemic, my example compares utility bond yields over the last six months of each year. As the below chart shows, although there has been higher volatility in utility bond yields for the last six months of 2020 compared to 2017, the overall mean indicates that the cost of utility debt was 4.05% for the last six months of 2017 compared to 2.98% in 2020. Because of the additional volatility in 2020, utility bonds had a 95% chance of being issued in the range of 2.75% to 3.21% (46 basis point range) compared to a 95% chance of being issued in a range of 3.9% to 4.21% (31 basis point range) in 2017. Therefore, while the volatility causes uncertainty as to whether a utility company will be able to issue at the mean or close to the mean, this simply indicates the utility company only has risk as to how much savings it can achieve in 2020 compared to 2017, not **whether** it can achieve savings.



Q. Ms. Bulkley suggests that your multi-stage DCF method does not reflect the change in utility stock price volatility relative to the market (S&P 500) as implied by beta. Do you agree?

A. No. I analyzed slightly over six months of stock price data (May 1, 2020 through November 11, 2020) for my proxy group. While I did not specifically compare the volatility of my utility stock prices compared to the S&P 500 over this period, this is not necessary because a discounted cash flow method can allow for variability in stock prices by using a longer averaging period. To the extent one wants to show a range in COE estimates to take stock price variability into consideration, then one can simply determine the standard deviation of stock prices over this period and arrive at a high and a low COE estimate. At one standard deviation in stock prices, I determined this would cause my multi-stage DCF COE estimate to be as low as 6.3% and as high as 6.56%. However, it should also be noted that to the extent utility stock prices increase at a rate higher than their earnings growth (expanding P/E ratios), then more recent stock prices provide a more reliable indicator of the reduced required return embedded in stock prices. Below I show the total return of my

water utility proxy group compared to the S&P 500 for the period I used for my water utility stock price averages:



Although the volatility of the daily changes in water utility stock prices was actually slightly higher than the S&P 500, the raw beta was only 0.6 for this short period. The lower beta is caused by the period between August and September when the S&P 500 index value increased while the stock prices in the water utility proxy group decreased. Beta not only captures volatility in comparing two sets of data, but it captures the covariance (the comparison of the amount of variances during market swings). Regardless, I would not place much weight on short-term variations in beta.

Q. Ms. Bulkley indicates you are determining beta differently than you have in the past. Is this correct?

A. No. I am still using the Value Line approach as I have done for many years. I simply use a custom Excel template that pulls stock market return data from the S&P Market Intelligence database. I agree betas have increased since the pandemic, but many circumstances have changed since the pandemic. Long-term risk-free rates have reached

new all-time lows with 10-year UST rates hovering around 1.1% recently. The broader markets have been soaring to record levels. This has caused the S&P 500 to trade at levels not experienced since the dot-com bubble around 2000. All of these market indicators suggest a much lower required return for the broader markets, which offsets the increase in beta for utility stocks.

Q. Are market participants recognizing that current low interest rates likely justify higher valuation levels?

A. Yes. This was a topic of discussion after the Fed's recent two-day meeting that ended on January 27, 2021. A recent WSJ article indicated the following about current market valuations:

> Stock valuations are looking stretched and for some observers bubble alarm bells are starting to sound. By a variety of measures, including price to expected earnings and price to the past decade's inflation- adjusted earnings, equities have never been so expensive outside of the dot-com bubble years…
>
> …One reason the Fed isn't fazed by stock valuations is that it is among those arguing that, in the current low-interest-rate environment, stock prices aren't dangerously excessive.
>
> In the semiannual report it has been publishing since 2018 as part of its effort to address financial stability concerns, the Fed has been highlighting the spread between the S& P 500's earnings yield (the inverse of the index's forward price-earnings ratio) and 10-year Treasury yields adjusted for economists' inflation expectations. Current data show that spread is around 5.6 percentage points, which if anything suggests stocks are relatively cheap. At the height of the dot-com bubble, that spread was around zero…
>
> …Still, if Fed officials aren't alarmed by what is happening in the stock market, they should at least be worried. Most standard valuation measures show stocks are alarmingly expensive, and the reason the gauge the central bank has highlighted doesn't is that one of its inputs—the 10-year Treasury yield—is so low. Yet the yield is so low in large part because the Fed itself has promised to keep policy easy until the economy is well along the path to recovery. If Treasury yields head higher in the months ahead, stocks could quickly look much more expensive.[26]

[26] Justin Lahart, "Fed Won't Burst This Bubble (Yet)," *Wall Street Journal,* p. B10, February 1, 2021.

Although the above comments do not provide quantification of the impact of current capital market conditions on the cost of equity, just the mere fact that investors recognize that lower interest rates justify higher market valuations indicates that at the very least, investors' required equity risk premiums over the risk-free rate have not expanded to a level that would cancel out the value created by lower risk-free rates. As I indicated in my rebuttal testimony, this explains why companies with higher expected cash flows farther into the future have been trading at higher premiums recently.

Q. Can you provide information about recent market valuation levels for the S&P 500 to provide some context as to why it is reasonable to conclude that the market's aggregate required return is lower now than it was in 2017 as Ms. Bulkley suggests?

A. Yes. The S&P 500 P/E was trading in a range of around 16x to 18x in 2017. As of January 2021, the S&P 500 has been trading at a P/E ratio of around 22x.[27] While Ms. Bulkley attempts to convince the Commission that equity risk premiums are higher now than they were in 2017 by focusing on VIX ratios, as I demonstrated in my example as it relates to utility bond yields in 2020 compared to 2017, just because prices may be less certain on a day-to-day, week-to-week or month-to-month basis, this does not change the fact that the current overall valuation level of stocks is higher, which allows not only utilities, but the broader markets to issue equity at cheaper costs (higher price to investors, lower costs to issuers).

Q. Have companies been taking advantage of the very low costs of capital?

A. Yes. Companies are taking advantage of current high stock valuation levels by issuing significantly more equity in January of 2021 compared to January of 2020. According to Renaissance Capital data, companies raised $13.4 billion in January 2021 through 24 initial public offerings ("IPOs"), an increase of 300% compared to last year. Special Purpose Acquisition Companies (commonly referred to as "blank-check" companies because they have wide latitude to use investors' capital to acquire companies), have raised $25 billion through 91 offerings according to SPACinsider.com. In addition to these new companies,

[27] Yardeni Research, January 29, 2021.

there have been 111 offerings of new shares from existing U.S. companies, which is double the number of offerings from the same period in 2020.[28]

Q. Can you provide valuation data on American Water since 2017?

A. Yes. See the chart below:

As is evident from the chart, although American Water's P/E ratio was in fact much more stable in 2017 at around 25x to 27x, between mid-2019 and mid-2020, it has largely traded at a P/E ratio in the range of 30x to 35x , with it trading between 35x to 40x since November 1, 2020. Considering the S&P 500 contains higher growth companies, such as companies in the technology sector, it makes little sense for a water utility company to be trading at an almost 100% premium to the S&P 500 unless the discount rate (i.e. cost of equity) applied to its anticipated cash flows is extremely low. The fact that the P/E ratio has more volatility, but is still trading in the range of 30x to 35x does not translate into a higher cost

[28] Michael Wursthorn and Akane Otani, "Investors Wary of Highfliers Falling to Earth," *Wall Street Journal,* pp. B1 and B9, February 1, 2021

of equity than in 2017, it simply means that if the company did issue equity to the markets, it may be less certain as to whether it can time the issuance at the peak of its recent high valuation levels.

Another helpful illustration is to review American Water's dividend yields since January 1, 2017. The below chart illustrates that while the volatility of American Water's dividend yields are higher, the level of the yields are lower. This illustration is similar to the bond yield example I provided earlier.

Although I expected American Water's dividend yield to be less volatile for the six-month period June 30, 2017 through December 31, 2017, compared to June 30, 2020 through December 31, 2020, I discovered American Water's dividend yield was actually slightly more volatile in 2017.

Regardless, as I indicated when I compared bond yields, it is the level of the cost that matters when comparing 2017 to 2020. The average dividend yield for American Water was 1.97% for the latter half of 2017 compared to an average of 1.49% for the latter half of 2020. Clearly, MAWC's parent company has a reduced cost of capital now compared to 2017.

Q. What do you conclude after reviewing the additional data you analyzed in response to Ms. Bulkley's rebuttal testimony?

A. I am even more convinced that investors are providing utility companies capital, including equity, at a very low cost. Analyzing market data related specifically to MAWC's parent company, American Water, leaves no doubt that American Water has benefited greatly from past low costs of capital and will benefit to an even larger degree if MAWC's allowed return is not set at a reasonable level to reflect this obvious and straightforward evidence. Although there is sufficient evidence to support a lower allowed ROE than that which was recently authorized Empire, I still maintain that a 9.25% allowed ROE is reasonable if applied to the lower equity ratio consistent with MAWC's lower business risk. .

SEOUNG JOUN WON

Q. Can you summarize Dr. Won's criticisms of your direct testimony?

A. Yes. Dr. Won's main concern relates to how I ultimately arrived at a 9.25% allowed ROE recommendation in this case. Dr. Won indicates that my workpapers imply that the COE for water utilities has declined by 18 basis points since MAWC's 2017 rate case.[29] While my multi-stage DCF using a 3.5% perpetual growth rate in this case was in fact 18 basis points lower than Staff's COE estimate in the 2017 rate case, Staff's 2017 COE estimate was based on a 4% perpetual growth rate. My multi-stage DCF in this case using a 4% perpetual growth rate, implies a very similar COE to that which Staff estimated in 2017. Because a precise COE estimate can be quite elusive, I concluded that the COE for my water utility proxy group was not distinguishably different than the time period evaluated in MAWC's 2017 rate case.

Assuming the MAWC's 2017 rate case had been litigated and the Commission specified a 9.75% ROE as reasonable, I could understand Dr. Won's logic of using this as a benchmark. However, the Commission simply approved a settlement that specified a range without considering the merits of each parties' individual positions. The record in the 2017

[29] Won Direct, p. ll. 18-19.

rate case and in this rate case demonstrates that investors view the water utility industry's business risk as lower than then electric utility industry's business risks. While I believe the capital market conditions in 2017 should be considered for context, it is critical to consider the overall trend in capital market conditions over the last several years. My findings, as well as Ms. Bulkley's findings if she accepted the markets' signals as real, show that the utility industry's cost of capital has been declining consistently since 2010.

While debating the various nuances of cost of equity methods and assumptions are important, considering the fact that my estimated cost of equity is about half that of Ms. Bulkley's estimate, I think it is most useful to present the Commission with practical and illustrative information regarding trends in capital markets, specifically as it relates to the utility industry. If this information shows a continued and consistent decline in the cost of capital based on a time series comparison, then there is little justification for authorizing a ROE higher than it authorized for its higher-risk electric utility companies several years ago, let alone in the recent Empire rate case. Except for the recent disruption in capital markets related to the COVID-19 pandemic, it was clear that the declining interest rate environment was causing a significant increase in utility shareholder wealth through increased share prices. The regulatory compact requires a reduced allowed ROR when shareholders are realizing higher market returns due to a lower cost of capital. My 9.25% recommended allowed ROE balances the goals of maintaining affordability with positioning MAWC in a position to attract capital , especially if it is rightly applied to my recommended common equity ratio of 41.1%.

SUMMARY AND CONCLUSIONS

Q. Can you summarize the main points of your surrebuttal testimony?

A. Yes. The Company seems to think that American Water's diversified holdings allow it to issue a significant higher proportion of leverage than it targets on MAWC's books for ratemaking. The fact that American Water has been increasing the proportion of leverage in its capital structure over the last several years while continuing to target 53% equity for MAWC causes this argument to ring hollow. Because utility commissions have not resisted American Water's financial strategy of targeting equity-rich capital structures at

its subsidiaries to allow for higher cash flows to support even more debt at the holding company, American Water has been increasing the delta between its equity ratio and those used for ratemaking. There is no objective evidence that demonstrates American Water's business risk has declined for any reason other than due to its regulated water and sewer utility assets, which includes MAWC.

Capital markets clearly indicate a lower cost of capital environment, especially as it relates to MAWC's parent company, American Water. Ms. Bulkley's attempt to focus on volatility of the broader markets and to speculate as to the direction of utility capital markets should be dismissed. A decade of declining capital costs is not an anomaly. Capital markets are clearly recognizing the lower costs of capital by bidding up the value of security prices.

Q. Does this conclude your testimony?

A. Yes.