



State of Rhode Island and Providence Plantations

DEPARTMENT OF ATTORNEY GENERAL

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*Peter F. Kilmartin, Attorney General*

February 21, 2014

Luly E. Massaro, Commission Clerk  
Public Utilities Commission  
89 Jefferson Boulevard  
Warwick, RI 02888

**RE: United Water Rhode Island  
Docket No. 4434**

Dear Luly:

Enclosed for filing, please find one complete, original copy of the Division of Public Utilities and Carriers' Response to United Water's Data Request of February 11, 2014, in the above-referenced docket. Due to the large volume of this document, please note that the remaining hard copies provided to the Commission will be accompanied by a CD containing the attachment in response to United's Question #4.

Please note that an electronic copy of this filing has been sent to the service list. No hard copies will be mailed to the service list members unless otherwise requested.

If you have any questions, please do not hesitate to call. Thank you.

Very truly yours,

Christy Hetherington  
Special Assistant Attorney General  
Extension 2425

Enclosures

**UNITED WATER RHODE ISLAND  
RIPUC DOCKET NO. 4434**

**Response of the Division to United Water Rhode Island Data Request of February 11, 2014**

**RESPONSES TO DATA REQUESTS**

1. Please provide all electronic workpapers for Schedules MIK-1 through MIK-5 in Excel format, if applicable, with all formulas intact.

Response

Attached to this response is an Excel file for Schedules MIK-3 and 4. There is no electronic file for Schedules MIK-1, 2 and 5.

**UNITED WATER RHODE ISLAND, INC.**

List of the Water Utility Proxy Companies

<u>Company</u>	<u>Safety Rating</u>	<u>Financial Strength</u>	<u>Beta</u>	2012 Common Equity <u>Ratio*</u>
1. American Water Works Company	3	B+	0.65	45.5%
2. American States Water Company	2	A	0.70	57.0%
3. Aqua America, Inc.	2	B++	0.60	50.0%
4. California Water Service Group	3	B++	0.65	50.0%
5. Connecticut Water Service	3	B+	0.75	51.5%
6. Middlesex Water Company	2	B++	0.70	57.0%
7. SJW Corporation	3	B+	0.85	49.0%
8. York Water Company	2	B+	0.70	57.0%
<b>Average</b>	<b>2.5</b>	<b>--</b>	<b>0.70</b>	<b>52.1%</b>

\* The common equity ratio excludes short-term debt (and current maturities of long-term debt). Actual 2012 equity ratio including short-term debt and current maturities averages 49.6 percent.

Source: *Value Line Investment Survey*, October 18, 2013.

**UNITED WATER RHODE ISLAND, INC.**

DCF Summary for the  
Water Utility Proxy Group

1. Dividend Yield (July - December 2013) <sup>(1)</sup>	2.85%
2. Adjusted Yield ((1) x 1.0275)	3.0%
3. Long-Term Growth Rate <sup>(2)</sup>	6.0 - 6.5
4. Total Return ((2) + (3))	9.0 - 9.5
5. Flotation Expense	0.0%
6. Cost of Equity ((4) + (5))	9.0 - 9.5
7. Midpoint	9.3%
<b>Recommendation</b>	<b>9.3%</b>

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<sup>(1)</sup> Schedule MIK-4, page 2 of 5.

<sup>(2)</sup> Schedule MIK-4, pages 3 of 5, 4 of 5 and 5 of 5.

**UNITED WATER RHODE ISLAND, INC.**

Dividend Yields for the Water Utility Proxy Group  
 (July – December 2013)

<u>Company</u>	<u>July</u>	<u>August</u>	<u>September</u>	<u>October</u>	<u>November</u>	<u>December</u>	<u>Average</u>
1. American Water Works Company	2.6%	2.7%	2.7%	2.6%	2.7%	2.8%	2.68%
2. American States Water Company	2.5%	3.1%	2.9%	2.8%	2.8%	2.7%	2.80%
3. Aqua America, Inc.	2.2%	2.5%	2.5%	2.4%	2.5%	2.5%	2.43%
4. California Water Service Group	2.9%	3.2%	3.1%	2.9%	2.8%	2.8%	2.95%
5. Connecticut Water Service	3.2%	3.3%	3.1%	3.1%	2.9%	2.8%	3.07%
6. Middlesex Water Company	3.5%	3.7%	3.5%	3.7%	3.5%	3.6%	3.58%
7. SJW Corporation	2.6%	2.8%	2.6%	2.6%	2.7%	2.4%	2.62%
8. York Water Company	<u>2.6%</u>	<u>2.8%</u>	<u>2.8%</u>	<u>2.7%</u>	<u>2.5%</u>	<u>2.7%</u>	<u>2.68%</u>
<b>Average</b>	<b>2.76%</b>	<b>3.01%</b>	<b>2.90%</b>	<b>2.85%</b>	<b>2.80%</b>	<b>2.79%</b>	<b>2.85%</b>

Source: Standard & Poors *Stock Guide*, August 2013 – January 2014.

**UNITED WATER RHODE ISLAND, INC.**

Projection of Earnings Per Share  
 Five-Year Growth Rates for the  
 Water Utility Proxy Group

<u>Company</u>	<u>Value Line</u>	<u>Yahoo</u>	<u>MSN</u>	<u>Reuters</u>	<u>CNN</u>	<u>Average</u>
1. American Water Works Company	10.0%	6.9%	7.2%	8.93%	7.10%	8.03%
2. American States Water Company	6.0%	2.0%	2.0%	N/A	1.00%	2.75%
3. Aqua America, Inc.	8.0%	5.8%	5.3%	7.40%	5.80%	6.46%
4. California Water Service Group	6.5%	6.0%	6.0%	N/A	6.0%	6.13%
5. Connecticut Water Service	5.5%	5.0%	5.0%	5.00%	5.0%	5.10%
6. Middlesex Water Company	4.0%	2.7%	N/A	N/A	2.7%	3.13%
7. SJW Corporation	7.5%	14.0%	N/A	N/A	10.0%	10.50%
8. York Water Company	4.0%	4.9%	N/A	N/A	6.0%	4.97%
<b>Average</b>	<b>6.44%</b>	<b>5.91%</b>	<b>5.10%</b>	<b>7.11%</b>	<b>5.45%</b>	<b>5.88%</b>

Source: *Value Line Investment Survey*, October 18, 2013. YahooFinance.com, MSNMoney.com, Reuters.com, CNNFN.com, public websites, November 21, 2013.

**UNITED WATER RHODE ISLAND, INC.**

Other *Value Line* Growth Measures  
For the Water Utility Proxy Group

<u>Company</u>	<u>Dividend per Share</u>	<u>Book Value per Share</u>	<u>Earnings Retention</u>
1. American Water Works Company	9.0%	4.5%	4.5%
2. American States Water Company	9.0%	2.0%	5.0%
3. Aqua America, Inc.	8.0%	6.5%	5.0%
4. California Water Service Group	6.5%	5.5%	3.0%
5. Connecticut Water Service	3.5%	6.0%	3.0%
6. Middlesex Water Company	1.5%	2.0%	3.0%
7. SJW Corporation	4.5%	5.0%	3.5%
8. York Water Company	<u>3.5%</u>	<u>2.5%</u>	<u>3.0%</u>
<b>Average</b>	<b>5.69%</b>	<b>4.25%</b>	<b>3.75%</b>

Source: *Value Line Investment Survey*, October 18, 2013. The earnings retention figures are for the time period 2016-2018.

**UNITED WATER RHODE ISLAND, INC.**

Fundamental Growth Rate Analysis for the  
 Water Utility Proxy Group

	Company	Shares		% Premium <sup>(2)</sup>	sv <sup>(3)</sup>	br <sup>(4)</sup>	sv + br
		2012-2017 <sup>(1)</sup>	%				
1.	American Water Works Company	0.89%	59.7%	0.5%	4.5%	5.0%	
2.	American States Water Company	2.69%	124.4%	3.3%	5.0%	8.3%	
3.	Aqua America, Inc.	0.96%	203.4%	1.9%	5.0%	6.9%	
4.	California Water Service Group	3.56%	74.9%	2.7%	3.0%	5.7%	
5.	Connecticut Water Service	1.81%	85.6%	1.6%	3.0%	4.6%	
6.	Middlesex Water Company	1.45%	76.9%	1.1%	3.0%	4.1%	
7.	SJW Corporation	4.26%	88.4%	3.8%	3.5%	7.3%	
8.	York Water Company	1.62%	157.4%	2.5%	3.0%	5.5%	
<b>Average</b>				<b>2.2%</b>	<b>3.8%</b>	<b>5.9%</b>	

<sup>(1)</sup> Projected growth rate in shares outstanding, 2012-2017.

<sup>(2)</sup> % Premium of share price ("Recent Price") over 2012 book value per share.

<sup>(3)</sup> sv is growth rate in shares x % premium.

<sup>(4)</sup> br is Value Line projection as of 2016-2018.

Source: *Value Line Investment Survey*, October 18, 2013.

Input Data for MIK-4 (page 5 of 5)

Company	Shares		CAGR <sup>(1)</sup>	Premium		
	2017	2012		Recent Price	2012 BVPS	% Premium <sup>(2)</sup>
1. American Water Works Company	185	176.99	0.89%	40.09	25.10	59.7%
2. American States Water Company	44	38.53	2.69%	26.48	11.80	124.4%
3. Aqua America, Inc.	184	175.43	0.96%	23.97	7.90	203.4%
4. California Water Service Group	50	41.98	3.56%	19.73	11.28	74.9%
5. Connecticut Water Service	12	10.97	1.81%	31.35	16.89	85.6%
6. Middlesex Water Company	17	15.82	1.45%	20.31	11.48	76.9%
7. SJW Corporation	23	18.67	4.26%	27.72	14.71	88.4%
8. York Water Company	14	12.92	1.62%	19.90	7.73	157.4%

Notes:

(1) Compound Annual Growth Rate (CAGR) is calculated as  $(2017 \text{ Value}/2012 \text{ Value})^{(1/5)} - 1$

(2) Percent Premium is calculated as  $(\text{Price} - \text{BVPS})/\text{BVPS}$

$$\text{CAGR} = \left( \frac{\text{Ending Value}}{\text{Beginning Value}} \right)^{\left( \frac{1}{\# \text{ of years}} \right)} - 1$$

Source: Value Line Investment Survey, October 18, 2013.

### Capital Structure

Company	(1) Total Debt	(2) # Shares in 2012	(3) 2012 BVPS	(4) Total Equity	(5) Total Capital	(6) Equity Ratio
1. American Water Works Company	5,761	177.0	25.10	\$4,442.4	\$10,203.4	43.5%
2. American States Water Company	335.8	38.5	11.80	\$454.7	\$790.5	57.5%
3. Aqua America, Inc.	1,648.4	175.4	7.90	\$1,385.9	\$3,034.3	45.7%
4. California Water Service Group	507.6	42.0	11.28	\$473.5	\$981.1	48.3%
5. Connecticut Water Service	180.2	11.0	16.89	\$185.3	\$365.5	50.7%
6. Middlesex Water Company	166.7	15.8	11.48	\$181.6	\$348.3	52.1%
7. SJW Corporation	335.8	18.7	14.71	\$274.6	\$610.4	45.0%
8. York Water Company	84.9	12.9	7.73	\$99.9	\$184.8	54.1%
<b>Average</b>						<b>49.6%</b>

Notes:

(1,2,3) Inputs

(4) Total Equity is calculated as (# Shares \* BVPS) = (Column 2 \* Column 3)

(5) Total Capital is calculated as (Total Debt + Total Equity) = (Column 1 + Column 4)

(6) Equity Ratio is calculated as (Total Equity / Total Capital) = (Column 4 / Column 5))

Source: *Value Line Investment Survey*, October 18, 2013.

**UNITED WATER RHODE ISLAND  
RIPUC DOCKET NO. 4434**

**Response of the Division to United Water Rhode Island Data Request of February 11, 2014**

**RESPONSES TO DATA REQUESTS**

2. Please provide the entire chapters or articles cited or relied upon by Mr. Kahal in support of his direct testimony and recommendations.

Response

Documents specifically relied upon by Mr. Kahal (including Company's filing and data responses) are cited in his testimony and supporting schedules. Mr. Kahal's testimony also cites to a portion of the Brealey, et al. corporate finance textbook discussion concerning the equity risk premium literature. Attached to this response is the Brealey, et al. relevant portion of the text that Mr. Kahal relied upon.

# PRINCIPLES OF CORPORATE FINANCE

EIGHTH EDITION

RICHARD A. BREALEY

Professor of Finance  
London Business School

STEWART C. MYERS

Gordon Y Billard Professor of Finance  
Sloan School of Management  
Massachusetts Institute of Technology

FRANKLIN ALLEN

Nippon Life Professor of Finance  
The Wharton School  
University of Pennsylvania



**McGraw-Hill**  
**Irwin**

Boston Burr Ridge, IL Dubuque, IA Madison, WI New York San Francisco St. Louis  
Bangkok Bogotá Caracas Kuala Lumpur Lisbon London Madrid Mexico City  
Milan Montreal New Delhi Santiago Seoul Singapore Sydney Taipei Toronto

expected return of 10 percent in the capital markets. The net present value of such project would be

$$NPV = -100 + \frac{108.8}{1.1} = -1.1$$

*Moral:* If the cost of capital is estimated from historical returns or risk premiums, use arithmetic averages, not compound annual rates of return.<sup>8</sup>

### Using Historical Evidence to Evaluate Today's Cost of Capital

Suppose there is an investment project which you *know*—don't ask how—has the same risk as Standard and Poor's Composite Index. We will say that it has the same degree of risk as the *market portfolio*, although this is speaking somewhat loosely, because the index does not include all risky securities. What rate should you use to discount this project's forecasted cash flows?

Clearly you should use the currently expected rate of return on the market portfolio, that is the return investors would forgo by investing in the proposed project. Let us call this market return  $r_m$ . One way to estimate  $r_m$  is to assume that the future will be like the past and that today's investors expect to receive the same "normal" rates of return revealed by the averages shown in Table 7.1. In this case, you would set  $r_m$  at 11.7 percent, the average of past market returns.

Unfortunately, this is *not* the way to do it;  $r_m$  is not likely to be stable over time. Remember that it is the sum of the risk-free interest rate  $r_f$  and a premium for risk. We know that  $r_f$  varies. For example, in 1981 the interest rate on Treasury bills was about 15 percent. It is difficult to believe that investors in that year were content to hold common stocks offering an expected return of only 11.7 percent.

If you need to estimate the return that investors expect to receive, a more sensible procedure is to take the interest rate on Treasury bills and add 7.6 percent, the average risk premium shown in Table 7.1. For example, as we write this in early 2004 the interest rate on Treasury bills is about 1 percent. Adding on the average risk premium, therefore, gives

$$\begin{aligned} r_m(2004) &= r_f(2004) + \text{normal risk premium} \\ &= .01 + .076 = .086, \text{ or about } 8.5\% \end{aligned}$$

The crucial assumption here is that there is a normal, stable risk premium on the market portfolio, so that the expected *future* risk premium can be measured by the average past risk premium.

Even with over 100 years of data, we can't estimate the market risk premium exactly; nor can we be sure that investors today are demanding the same reward for risk that they were 50 or 100 years ago. All this leaves plenty of room for argument about what the risk premium *really* is.<sup>9</sup>

<sup>8</sup>Our discussion above assumed that we *knew* that the returns of -10, +10, and +30 percent were equally likely. For an analysis of the effect of uncertainty about the expected return see I. A. Cooper, "Arithmetic Versus Geometric Mean Estimators: Setting Discount Rates for Capital Budgeting," *European Financial Management* 2 (July 1996), pp. 157-167.

<sup>9</sup>Some of the disagreements simply reflect the fact that the risk premium is sometimes defined in different ways. Some measure the average difference between stock returns and the returns (or yields) on long-term bonds. Others measure the difference between the compound rate of growth on stocks and the interest rate. As we explained above, this is not an appropriate measure of the cost of capital.

Many financial managers and economists believe that long-run historical returns are the best measure available. Others have a gut instinct that investors don't need such a large risk premium to persuade them to hold common stocks.<sup>10</sup> For example, two recent surveys of financial economists revealed that they expected a risk premium of between 5.5 percent and 7 percent,<sup>11</sup> while surveys of chief financial officers have suggested an average risk premium of 5.6 percent.<sup>12</sup>

If you believe that the expected market risk premium is less than the historical average, you probably also believe that history has been unexpectedly kind to investors in the United States and that their good luck is unlikely to be repeated. Here are two reasons that history *may* overstate the risk premium that investors demand today.

**Reason 1** Since 1900 the United States has been among the world's most prosperous countries. Other economies have languished or been wracked by war or civil unrest. By focusing on equity returns in the United States, we may obtain a biased view of what investors expected. Perhaps the historical averages miss the possibility that the United States could have turned out to be one of these less-fortunate countries.<sup>13</sup>

Figure 7.3 sheds some light on this issue. It is taken from a comprehensive study by Dimson, Marsh, and Staunton of market returns in 16 countries and shows the average risk premium in each country between 1900 and 2003.<sup>14</sup> Although U.S. investors are far from top of the form in terms of risk premium that they have earned, they do appear to have been slightly luckier than the average investor in the 16 countries.

In Figure 7.3 Danish stocks come bottom of the league; the average risk premium in Denmark was only 4.3 percent. The clear winner was Italy with a premium of 10.7 percent. Some of these differences between countries may reflect differences in risk. For example, Italian stocks have been particularly variable and investors may have required a higher return to compensate. But remember how difficult it is to make precise estimates of what investors expected. You probably would not be too far out if you concluded that the *expected* risk premium was the same in each country.

<sup>10</sup>There is some theory behind this instinct. The high risk premium earned in the market seems to imply that investors are extremely risk-averse. If that is true, investors ought to cut back their consumption when stock prices fall and wealth decreases. But the evidence suggests that when stock prices fall, investors spend at nearly the same rate. This is difficult to reconcile with high risk aversion and a high market risk premium. See R. Mehra and E. Prescott, "The Equity Premium: A Puzzle," *Journal of Monetary Economics* 15 (1985), pp. 145-161.

<sup>11</sup>The 7 percent figure comes from a survey conducted in 1998 and is reported in Ivo Welch, "Views of Financial Economists on the Equity Premium and on Professional Controversies," *Journal of Business* 73 (2000), pp. 501-537. The 5.5 percent figure comes from a follow-up survey in 2001, reported in Ivo Welch, "The Equity Premium Consensus Forecast Revisited," Cowles Foundation Discussion Paper No. 1325, Yale School of Management, September 2001.

<sup>12</sup>These surveys were conducted between 2000 and 2003 and are reported in J. R. Graham and C. R. Harvey, "Expectations of Equity Risk Premia, Volatility and Asymmetry from a Corporate Finance Perspective" working paper, Duke University, Fuqua School of Business, July 2003. The CFOs forecasted a risk premium of 3.8 percent over 10-year Treasury bond yields, which is equivalent to 5.6 percent over the yield on 3-month Treasury bills.

<sup>13</sup>This possibility was suggested in P. Jorion and W. N. Goetzmann, "Global Stock Markets in the Twentieth Century," *Journal of Finance* 54 (June 1999), pp. 953-980.

<sup>14</sup>See E. Dimson, P. R. Marsh, and M. Staunton, *Triumph of the Optimists: 101 Years of Investment Returns* (Princeton, NJ: Princeton University Press, 2002).

Fin. Econ.  
Yale 5.5%

2003  
3.8%  
relative  
10-year  
Treasury

Thus a fall from 10 percent to 9 percent in the required return leads to a 50 percent rise in the stock price. If we include this price rise in our measures of past returns, we will be doubly wrong in our estimate of the risk premium. First, we will overestimate the return that investors required in the past. Second, we will fail to recognize that the return investors require in the future is lower than they needed in the past.

### An Alternative Measure of the Risk Premium

We can check our measure of the risk premium by going back to the constant-growth model that we introduced in Chapter 4. One might expect that in the long run stock prices should keep pace with the growth in dividends. In this case an alternative measure of the expected market return is the average dividend yield plus the average long-term growth in dividends. Since 1900 dividend yields in the United States have averaged 4.7 percent and the annual growth in dividends has likewise been 4.7 percent. It seems that the *expected* market return over this period was 9.4 percent, or about 5.3 percent above the risk-free interest rate. This is 2.3 percent lower than the *realized* risk premium reported in Table 7.1.<sup>15</sup>

Fama and French have pointed out that much of this difference is due to the second half of the twentieth century, when dividend yields fell sharply.<sup>16</sup> Since 1950 dividend yields have averaged under 3.9 percent and the annual growth in dividends has been 5.4 percent.

This suggests that the expected market return during this period was  $3.9 + 5.4 = 9.3$  percent, or 4 percent above the average risk-free interest rate since 1950.

Out of this debate only one firm conclusion emerges: Do not trust anyone who claims to *know* what returns investors expect. History contains some clues, but ultimately we have to judge whether investors on average have received what they expected. Many financial economists rely on the evidence of history and therefore work with a risk premium of about 7.5 percent. The remainder generally use a somewhat lower figure. Brealey, Myers, and Allen have no official position on the issue, but we believe that a range of 5 to 8 percent is reasonable for the risk premium in the United States.

Fama  
French



## 7.2 MEASURING PORTFOLIO RISK

You now have a couple of benchmarks. You know the discount rate for safe projects, and you have an estimate of the rate for average-risk projects. But you *don't* know yet how to estimate discount rates for assets that do not fit these simple

<sup>15</sup>Note, however, that depending on your forecasts of dividend growth, the constant-growth model can come up with estimates of the expected risk premium that are either higher or lower than the realized premium. In Chapter 4 we described a study by Marston and Harris, which used the constant-growth model to estimate the market risk premium. The study, which employed analysts' forecasts of long-term earnings growth, estimated that the expected risk-premium was 9.3 percent. However, we also noted in Chapter 4 that analysts tend to be unduly optimistic in their earnings forecasts.

<sup>16</sup>See E. F. Fama and K. R. French, "The Equity Premium," *Journal of Finance* 57 (April 2002), pp. 637-659. Fama and French quote even lower estimates of the risk premium. The difference largely reflects the fact that they define the risk premium as the difference between market returns and the commercial paper rate. Except for the years 1900-1918, the interest rates used in Table 7.1 are the rates on U.S. Treasury bills.

Marston  
Harris

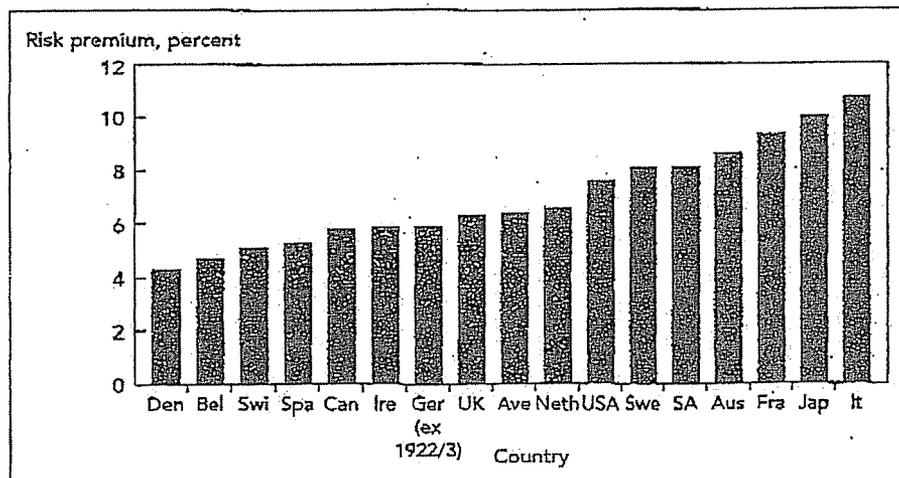


FIGURE 7.3

Average market risk premia (nominal return on stocks minus nominal return on bills), 1900–2003.

Source: E. Dimson, F. R. Marsh, and M. Staunton, *Triumph of the Optimists: 103 Years of Investment Returns* (Princeton, NJ: Princeton University Press, 2002), with updates provided by the authors.

**Reason 2** Stock prices in the United States have for some years outpaced the growth in company dividends or earnings. For example, between 1950 and 2000 dividend yields in the United States fell from 7.2 percent to 1.2 percent. It seems unlikely that investors *expected* such a sharp decline in yields, in which case some part of the actual return during this period was *unexpected*.

Some believe that the low dividend yields at the end of the twentieth century reflected optimism that the new economy would lead to a golden age of prosperity and surging profits, but others attribute the low yields to a reduction in the market risk premium. Perhaps the growth in mutual funds has made it easier for individuals to diversify away part of their risk, or perhaps pension funds and other financial institutions have found that they also could reduce their risk by investing part of their funds overseas. If these investors can eliminate more of their risk than in the past, they may become content with a lower return.

To see how a rise in stock prices can stem from a fall in the risk premium, suppose that a stock is expected to pay a dividend next year of \$12 ( $DIV_1 = 12$ ). The stock yields 3 percent and the dividend is expected to grow indefinitely by 7 percent a year ( $g = .07$ ). Therefore the total return that investors expect is  $r = 3 + 7 = 10$  percent. We can find the stock's value by plugging these numbers into the constant-growth formula that we introduced in Chapter 3:

$$PV = DIV_1 / (r - g) = 12 / (.10 - .07) = \$400$$

Suppose that investors now revise downward their required return to  $r = 9$  percent. If the dividend yield falls to 2 percent and the value of the stock rises to

$$PV = DIV_1 / (r - g) = 12 / (.09 - .07) = \$600$$

**UNITED WATER RHODE ISLAND  
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**RESPONSES TO DATA REQUESTS**

3. Please provide Mr. Kahal's last 10 return on common equity recommendations including docket number, jurisdiction, the date of filing, company, recommended capital structure ratios, models relied upon, the Commission's authorized return on common equity and authorized capital structure ratios.

Response

This response provides a listing of the ten most recent cost of capital testimony recommendations. The "case number" is that listed in Attachment A to Mr. Kahal's testimony which also lists the docket number, date, utility, and jurisdiction. Mr. Kahal does not normally retain commission orders for past cases. However, in each of the listed cases, the commission ruling (if any) on rate of return is available to United Water Rhode Island on each commission's website under the indicated docket number.

Attachment A Case No.	ROE	Capital Structure
403	9.0%	51.2% equity, 48.8% debt
399	9.9-10.0	55.6% equity, 1.5% preferred, 42.8% debt
398	9.25	50% equity, 50% debt
394*	9.75 (or less)	None
393*	9.75 (or less)	None
392	8.75	None
389	9.50	51.6% equity, 48.4% debt
388	9.30	51.2% equity, 48.8% debt
397	9.30	51.2% equity, 48.8% debt
385	9.50	46.7% equity, 53.1% debt, 0.2% preferred

\*Surrebuttal only. No independent cost of equity study performed.

In all cases, the DCF model was relied upon, with the CAPM used as a check. In Case 399, comparables earnings was also employed per the statutory mandate in that state. However, this is not a "model," nor does it measure the market cost of equity.

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**RESPONSES TO DATA REQUESTS**

4. Please provide copies of Mr. Kahal's last five testimonies and exhibits related to rate of return.

Response

The testimonies in Cases 403, 399, 398, 394 and 393 are attached.

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**Response of the Division to United Water Rhode Island Data Request of February 11, 2014**

**RESPONSES TO DATA REQUESTS**

5. Please provide the most recent five Orders from the Rhode Island Public Utilities Commission (RI PUC) explicitly approving exclusive reliance upon DCF analyses and rejecting Risk Premium/Capital Asset Pricing Model methodologies.

Response

The Division objects to this request on the grounds that United Water Rhode Island has access to all RIPUC orders in recent years through the Commission's website. Moreover, Mr. Kahal has not conducted a survey review of past Commission orders. Mr. Kahal further notes that the cost of equity methodology typically is *not* discussed in Commission orders that adopt a comprehensive rate case settlement.

Notwithstanding this objection, the Commission made its preference for reliance on the DCF (and rejection of the Risk Premium ("RP") and CAPM methods) clear in its Decision and Order in Docket No. 4065 (Narragansett Electric Company). At page 90, the Order states:

"Even though [Company witness] Mr. Moul acknowledged that the Commission has historically expressed a preference for the DCF method for setting an authorized rate of return, he chose to propose a rate based on an average of the DCF, the RP, and the CAPM. This is in contravention of the Commission's long-standing policy. See e.g., *In re Valley Co. & Bristol & Warren Gas Co.*, Docket No. 2276, Order No. 14834 (where the Commission stated its preference for the DCF methodology)."

This Order goes on to cite to several other cases where it relied upon the DCF method in the context of discussing the Division's recommendation.

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6. Please provide RI PUC Orders where the authorized capital structure for United Water Rhode Island has included short-term debt.

Response

The Division objects to this request on the grounds that Commission orders are available to United Water Rhode Island on the Commission's website.

Notwithstanding this objection, the Division responds as follows: It is Mr. Kahal's understanding that short-term debt is routinely recognized by the Commission assuming that the utility makes use of short-term debt. Examples of recent cases would include the last two Narragansett dockets (Docket Nos. 4065 and 4323) and the settlement in United Water Rhode Island's last rate case (Docket No. 4255). The Commission-approved settlement in that docket included Mr. Kahal's recommended capital structure which included 4.04 percent short-term debt. This is shown on settlement Exhibit 1 (Joint Settlement) Schedule 16.

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7. Please reconcile Mr. Kahal's use of prospective growth in his Discounted Cash Flow analysis and current yields as the risk-free rate in his Capital Asset Pricing Model.

Response

There is no difference that requires reconciliation. Both the DCF and CAPM are intended to be prospective models. For that reason, Mr. Kahal employs "current" (i.e., recent six-month average) market-based values in *both* the DCF and CAPM, i.e., stock prices in the DCF model and 30-year Treasury yields in the CAPM. This use of current market data in both models is required by financial theory. To do otherwise is nothing more than an exercise in departing from actual, observed market data and "making up numbers." Financial theory is also clear that the current yield on 30-year Treasury bonds is the best available estimate, as revealed by capital markets, of the future yield on 30-year Treasury bonds.

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8. On page 14 of Mr. Kahal's testimony, he states that United Water failed to cite Commission precedent to support the omission of short term debt from its requested ratemaking capital structure. Please cite all Commission precedent – including Docket Number and specific citations to the Order from each such Docket – that supports Mr. Kahal's position that United's short term debt should be included in its requested ratemaking capital structure.

Response

Please see the response to question 6.

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9. On page 15 of Mr. Kahal's testimony, he states that United Water failed to cite Commission precedent to support the omission of "Other Comprehensive Income" from its requested ratemaking capital structure. Please cite all Commission precedent – including Docket Number and specific citations to the Order from each such Docket – that supports Mr. Kahal's position that United's "Other Comprehensive Income" should be included in its requested ratemaking capital structure.

Response

It is Mr. Kahal's understanding that it is the Commission's standard practice to employ a utility's *actual* capital structure as long as it is considered to be reasonable. If it is not reasonable, the Commission instead may use the parent Company *actual* capital structure, such as the Company has proposed in this case. In its Decision and Order in Docket No. 4065, the Commission stated, "The Commission will utilize the capital structure of a utility in setting rates unless that capital structure is not reasonable for rate setting purposes." (page 92)

The exclusion of "Other Comprehensive Income" from common equity is clearly a departure from the Commission's normal use of the utility or parent actual capital structure. Given the Commission's practice of utilizing actual capital structure, Mr. Kahal is not aware of any Commission order that explicitly discusses the issue of whether the actual equity balance should be adjusted for Other Comprehensive Income.

Please note that the settlement in the Company's last case (Docket No. 4255) adopted a capital structure that rejected United Water's attempt to remove Other Comprehensive Income. See settlement Exhibit 1 (Joint Settlement) Sch. 16.