Q. McShane Evidence - Use of market versus Book values, page 54-56

a. Ms. McShane specifically states (page 55) that the allowed ROE should be converted from a market value to a higher book value such that the stream of earnings is maintained. Please confirm that this means that if the allowed ROE is not reduced due to regulatory lag and the stock price rises to reflect that, then she would not reduce the allowed ROE to a fair and reasonable level. If not why not.

b. Please confirm that Boards have rejected Ms. McShane's assumptions in a) since they amount to "rubberstamping unrealistic expectations" that is if the stock price is bid up due to unrealistic expectations it is not the job of the regulator to support that higher price.

c. Please confirm the following quotes from the Alberta EUB in its TransAlta decision (U99099, page 303)

"In essence, a regulated company's earnings are driven by the portion of the original cost rate base deemed to be financed by common equity. This fact results in a fundamental disconnect to the theory that market capitalization ratios, which have deviated significantly from book capitalization ratios, reflect the appropriate financial risk necessary to determine a fair composite return to be applied to the original cost rate base of a pure play regulated utility. This is because the earnings of a pure play regulated utility are governed by and driven by the regulated return allowed on book equity. In other words, it is the book equity that reflects the appropriate financial risk necessary to determine a fair composite return for a pure play regulated utility."

"The Board would be derelict in its statutory responsibilities to recognize market capitalization ratios that are derived from a market value capitalization that deviates from the intrinsic long-run value of the regulated firm."

Please indicate whether Ms. McShane agrees with the AEUB that market values have no place in regulation and that the Board of Commissioners would be similarly derelict in exercising its responsibilities and following her advice by making the suggested conversion from market to book values.

d. Please provide any references to published academic journals or books that indicate that market to book ratios above 1.0 for a 100% rate of return regulated utility on historic cost regulation does not indicate the allowed ROE is too high.

e. Please confirm that if regulation mimics competition and the utility is allowed to increase its rate base to replacement cost or to a price level adjustment, due to inflationary and other increases, then the correct rate of return to apply to the rate base is not the nominal rate but the real rate.

Otherwise the shareholder is compensated for inflation through both the return and the base it is applied to. If not please explain in detail why not and provide references to the literature that addressed this question in the 1970's when inflation was a serious problem.

A. a. It should be clear from Ms. McShane's testimony and recommended ROEs that is not the case. Ms. McShane's testimony does not state that "the allowed ROE should be converted from a market value to a higher book value such that the stream of earnings is maintained." Ms. McShane's testimony states that "When the allowed return is applied to an original cost book value, a market-derived cost of attracting capital should be converted to a fair and reasonable return on book equity so that the stream of dollar earnings on book value equates to the investors' dollar return requirements on market value." [emphasis added] Further, while the market to book ratios of the utilities used to estimate the cost of equity are, as noted at lines 1379 to 1381), in the range of 1.7 to 2.6 times, Ms. McShane's recommended ROE is consistent with a market to book ratio in the range of 1.15 to 1.20 times.

b. Ms. McShane cannot confirm. She does not know to what assumptions the question refers, nor is she aware of any decision that has referred to "rubberstamping unrealistic investor expectations". She agrees that it is not the job of regulators to support utility stock prices, even if they had the ability to control stock prices, which they do not. However, the question's premise, i.e., unrealistic investor expectations, suggests that investors (including sophisticated institutional investors) either do not understand regulation or are irrational. The latter implies that investors are willing to pay a price for utility shares well above book value in the expectation that they will incur significant capital losses, an implication which defies logic.

c. The cited quotes are found on pages 301 and 303, respectively.

Ms. McShane does not agree with the statements. When the market/book ratios of the proxy utilities used to estimate the cost of equity are above 1.0, the application of the market-derived cost of equity to the book value of equity would necessarily have to be increased to provide a stream of earnings on book value that equates to the investors' dollar return requirements on market value unless the book value equity ratio of the specific utility in question is higher than the market value equity ratios of the otherwise similar risk proxy utilities.

As for being derelict in its statutory duties, the PUB's responsibility is to provide utilities subject to its jurisdiction with the opportunity to earn a fair rate of return. As the Alberta Utilities Commission stated at page 28 of its 2009 Generic Cost of Capital Decision (2009-216):

> ”After review and consideration of the legislation and the evidence, legal argument and case law referred to in this proceeding, the Commission reiterates its agreement that there are three criteria or factors to be employed in determining a fair rate of return. Each criterion or factor must be applied by the Commission when determining a fair return, but what constitutes a fair return (including capital structure) is a matter of judgment for the Commission, exercised after weighing all of the evidence and argument in the context of the facts observed in the marketplace.”

Further, the Alberta Utilities Commission stated at paragraph 107 of the same decision:

> “The Commission notes with approval the following description by the ATCO Utilities of how the three factors or criteria of the fairness standard are assessed:
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> In the ATCO Utilities' view, the assertion that the three-part test is "simply three ways of looking at the same thing" fails to recognize the critical fact that there are differing tests which help to "triangulate" a Fair Return. Each may have greater or lesser relevance depending upon the economic landscape upon which the tests are conducted. The frailty of reliance on only a single leg of the three legged stool for stability and reliability of the result over changing economic conditions should be obvious.”

The approaches that regulators take, or their philosophical approaches, to the cost of capital, are not static. It is of note that, prior to Decision RH-1-2008 for TQM (March 2009), which adopted an ATWACC approach that uses market value capital structure weights to set the cost of capital, the NEB had historically relied on what it referred to as the “traditional approach”. The “traditional approach”, i.e., one which establishes a market-derived cost of equity and applies it (inclusive of a small financing flexibility or flotation cost adjustment) to the book value of equity, effectively presumes that the long-run value of the regulated firm is equal to book value. In Decision RH-1-2008, the NEB took a different approach, which “is more aligned with the way capital budgeting decision making takes place in the business world as compared to an approach by component that would include a stand-alone cost of equity estimate,” which “better utilizes financial market information,” and which “enables better comparisons of return on capital for companies of similar risk.” (pages 18 and 19)

d. This is a topic in which academic interest would be limited, with the debate on the subject focused in regulatory proceedings such as this one, rather than academic journals. Dr. Roger Morin, *New Regulatory Finance*, Public Utility Reports, Inc., 2006, Chapter 12, Market-Book and Q-Ratios (pages 359-378), explains why market-to-book ratios of utilities should be expected to exceed 1.0, including the following:

> "Fourth, in an inflationary period, the replacement cost of a firm's assets will increase more rapidly than its book equity. To avoid the resulting economic confiscation of shareholders' investment in real terms, the allowed rate of return should produce an M/B ratio that exceeds 1.0, as the subsequent section on Q-ratios will demonstrate. It would be difficult for utilities to attract capital in an environment where industrials command M/B ratios well above 1.0 while utilities are contemplating a reduction of their stock price toward book value at the next rate case. That is not a realistic view of regulation."

Dr. Morin cites the following articles in his text which support this proposition:

> Dr. Forrest Harlow, "Efficient Market Perspectives on Utility Rate of Return Adequacy", *Public Utilities Fortnightly*, March 29, 1984, pages 38-40; and "Q-Ratios and the Target Return on Equity for Utilities", *Public Utilities Fortnightly*, April 12, 1984, pages 29-31.
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> Dr. Robert H. Litzenberger, "Determination of a Target Market to Book Value Ratio for a Public Utility in an Inflationary Environment", in *Proceedings: Iowa State University*, Regulatory Conference on Public Utility Value and the Rate-Making Process, 1980.

e. If a replacement cost rate base, rather than a historical cost rate base were to be used, then theoretically, yes, the rate of return applied should be a real rate of return. Ms. McShane is not recommending a replacement cost rate base. Rather, her testimony explains, at lines 1414 to 1427, how economic theory supports an equilibrium market-to-book ratio for utilities above 1.0.