PAUL HALPERN*: Carleton, Chambers and Lakonishok have motivated this paper by beginning with an idealized regulatory process in which shortfalls of expected returns on equity from the current cost of equity capital are made up by subsequent rate relief; these shortfalls can be generated by unanticipated inflation. The correction of the shortfall is viewed as a "social contract" whose risk will be reflected in the cost of equity capital. The evidence in Table 1 in the paper is inconsistent with all of the implications of "ideal" regulation and the deviations appear to increase over the sample period.

The authors hypothesize that the non-observance of the "social contract" has increased investor risk and there should be an increase in the cost of equity capital. However, some bench mark must be identified so that increases in the cost of equity over and above those induced by increased expected rates of inflation can be identified. The bench mark used is the yield on zero-coupon Government bonds. The hypothesized positive relationship between the risk premium on equity and the level of interest rates will hold if there is no risk premium on debt or if it exists, it is independent of the level of interest rates. If Gordon and Halpern [1] are correct in that the bond risk premium depends upon the uncertainty in inflation rates which is related to the level of interest rates, then it is possible to observe an increase in the cost of equity at the same time as there is a decrease in the measured risk premium on equity.

There are two models which are used to investigate the impact of rising interest rates on the equity risk premium and by implication, the cost of equity capital over the sample time period. The first model is the more interesting of the two and displays an imaginative application of a certainty equivalent model. Using a dummy variable to identify high risk firms, it is observed that there has been a decrease in the size of the equity risk premium over the sample period.

One possible shortcoming in the cross-section relationships is that there are a number of potentially important differences among firms in the sample that may not have been identified. These differences reflect some of the regulatory innovations introduced to reduce the risk of inflation; examples are forecast test years, fuel adjustment clauses, and inflation adjusted rate bases. These differences (or perhaps a summary measure to identify their existence) could be introduced into the cross-sectional relationships and firms with these attributes should display much lower equity premia. It is possible that these differences are already captured in the risk (dummy) variable or in the outliers observed in the sample.

In the second model the relationship between the aggregate price to book ratios and expected rates of return on book equity is used to measure the cost of equity capital and ultimately the equity risk premium. Based on the crucial assumption that "investors expect current book equity to earn the allowed ROE in the future", the cost of equity capital is estimated. Under this assumption, price to book ratios will deviate from unity as allowed rates of return deviate from the true cost of equity. This certainly is one element in the analysis.

A casual glance at Table 1 identifies a pattern where earned rates of return are consistently below allowed rates of return. If investors are rational, this consistent

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discrepancy (which becomes more pronounced in the late 1970s) will be factored into investors' expectations of ROE. For example, from 1975–1980 the earned rates of return fluctuated narrowly about a value of 11.6% while the allowed return was approximately 13% and rising to 14.3% in 1980.

Substituting actual ROE for the year as an estimate of the expected ROE in equation 6 in the paper produces estimates of the cost of equity that are lower than those found in Table 5 but have the same pattern (i.e., moving directly with the rate of change in the C.P.I.).

In summary, the authors have carefully measured the equity risk premia over the sample period. However, by observing only the equity risk premia they cannot answer unambiguously the question that was posed in the paper—is the degree of risk of the social contract related to the level of interest rates?

[1] Gordon, M. J. and Halpern, P. J., "Bond Share Yield Spreads Under Uncertain Inflation," *American Economic Review*, 66, September 1976, 559–65.