aversion to be 113, which is away from acceptable reality by well over an order of magnitude. This is the equity premium puzzle, and it is apparent why characterizing this result as "disturbing" for the standard neoclassical paradigm may be putting it very mildly. Plugging in some reasonable alternative parameter values can have the effect of chipping away at the puzzle, but the overwhelming impression is that the equity premium is off by at least an order of magnitude. There just does not seem to be enough variability in the recent past historical growth record of advanced capitalist countries to warrant such a high equity premium as is observed.

Of course, the underlying model is extremely crude and can be criticized on any number of valid counts. Economics is not physics, after all, so there is plenty of wiggle room for a paradigm aspiring to be the "standard economic model." Still, a factor of seventy-five seems like an awfully large base-case discrepancy to be explained away *ex post factum*.

Turning to the risk-free rate puzzle, the meaning given in the literature to equation (12) parallels the interpretation given to the equity premium formula. Interpret the left hand side of equation (12) as the actual risk-free interest rate that is observed historically in the real world. Interpret the right hand side of equation (12) as a theoretical formula for calculating this risk-free interest rate, given θ and the true subjective probability distribution of the future growth rate g. Concerning the behavioral risk-aversion parameter θ, a value that would be accepted by the economics profession as a whole is about two, roughly. By contrast, nobody knows what is the true subjective probability distribution of the future growth rate g. As with the equity premium situation, the best that can be done here is to make some statistical *inference* about the likely probability distribution of g from observing past realizations of growth rates.

When the normality specification (15) is made and V is treated as a random variable, then using the formula for the expectation of a lognormal distribution transforms the theoretical risk-free rate formula (12) into

$$r_f \;=\; \rho + \theta \mathrm{E}[g] - \ln \mathrm{E}[\exp(\tfrac{1}{2}\theta^2 V)] \;, \qquad \textbf{(20)}$$

where the expectation of the third term on the right hand side of (20) is taken over V. From the exponential function in (20) being convex in V, a mean-preserving spread of V decreases the