Appendix 9A   The Historical Market Risk Premium: The Very Long Run

The data in Chapter 9 indicate that the returns on common stock have historically been much higher than the returns on short-term government securities. This phenomenon has bothered economists: It is difficult to justify why large numbers of rational investors purchase the lower-yielding bills and bonds.

In 1985, Mehra and Prescott published a very influential paper that showed that the historical returns for common stocks are far too high when compared to the rates of return on short-term government securities.[1] They pointed out that the difference in returns (frequently called the *equity premium*) implies a very high degree of risk aversion on the part of investors. Since the publication of the Mehra and Prescott research, financial economists have tried to explain the so-called equity risk premium puzzle. The high historical equity risk premium is especially intriguing compared to the very low historical rate of return on Treasury securities. This seems to imply behavior that has not actually happened. For example, if people have been very risk-averse and historical borrowing rates have been low, it suggests that people should have been willing to borrow in periods of economic uncertainty and downturn to avoid the possibility of a reduced standard of living. However, we do not observe increased borrowing during recessions.

The equity risk premium puzzle of Mehra and Prescott has been generally viewed as an unexplained paradox. However, recently, Jeremy Seigel has shown that the historical risk premium may be substantially lower than previously realized (see Table 9A.1). He shows that although the risk premium averaged 8.4 percent from 1926 to 2002, it averaged only 2.9 percent from 1802 to 1870, and 4.6 percent from 1871 to 1925.[2] It is puzzling that the trend has been rising over the last 200 years. It has been especially high since 1926. However, the key point is that historically the risk premium has been lower than in more recent times, and we should be somewhat cautious about assumptions we make concerning the current risk premium.

Table 9A.1

	1802–1870	1871–1925	1926–2002	Overall 1802–2002
Common stock	8.1	8.4	12.2	9.7
Treasury bills	5.2	3.8	3.8	4.3
Risk premium	2.9	4.6	8.4	5.4

[1]Rajnish Mehra and Edward C. Prescott, "The Equity Premium: A Puzzle," *Journal of Monetary Economics* 15 (1985), pp. 145–61.

[2]Jeremy J. Seigel, *Stocks for the Long Run,* 3rd ed. (New York: McGraw-Hill, 2002).