Equity Risk Premium – A Myth

by

Magnus Erik Hvass Pedersen
What is the Equity Risk Premium?

There are different ways of calculating ERP. The basic idea is:

- **Historical average of stock-market return minus gov.bond yield:**

  \[
  \text{Equity Risk Premium} = \text{Average}(\text{Stock Market Return} - \text{Gov. Bond Yield})
  \]

- Adding the Equity Risk Premium to the current yield on government bonds is believed to forecast the future stock-market return.

- Does it work?
S&P 500 annual returns minus yield on 10-year USA gov.bonds. Dividends on S&P 500 and changes in bond-prices are ignored.
Equity Risk Premium (1957-2013, Decade Returns)

S&P 500 annualized 10-year returns minus yield on 10-year USA gov.bonds.
Equity Risk Premium, Scatter Plots (1957-2013)
Conclusion

• Historically there has been no consistent Equity Risk Premium between the S&P 500 stock-market index and USA Gov. Bonds.
• Future stock-market returns cannot be reliably predicted from merely adding the historical average Equity Risk Premium to the current yield on long-term government bonds.
Further Reading

Plots are taken from the paper:

- Monte Carlo Simulation in Financial Valuation

Authored by Magnus Erik Hvass Pedersen.

Available on the internet:

www.Hvass-Labs.Org