Equity Risk Premium – A Myth

by

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What is the Equity Risk Premium?

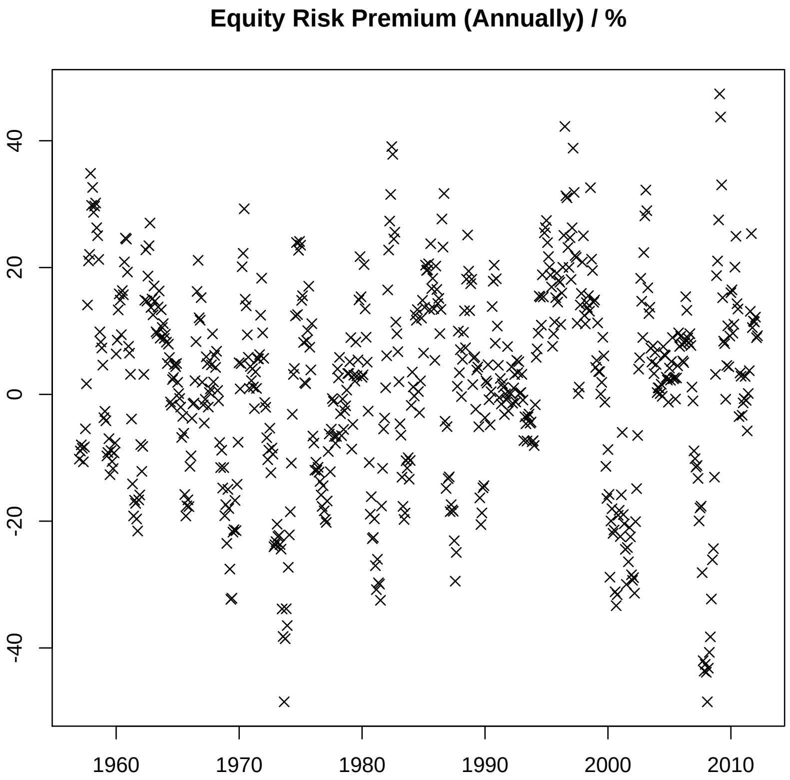
There are different ways of calculating ERP. The basic idea is:

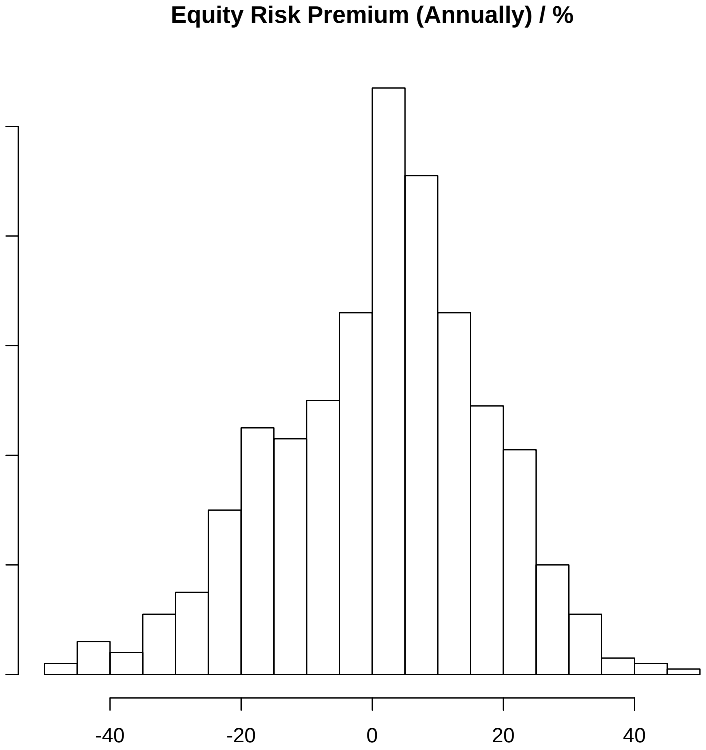
- Historical average of stock-market return minus gov.bond yield:

$$Equity\ Risk\ Premium = Average(Stock\ Market\ Return - Gov.Bond\ Yield)$$

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

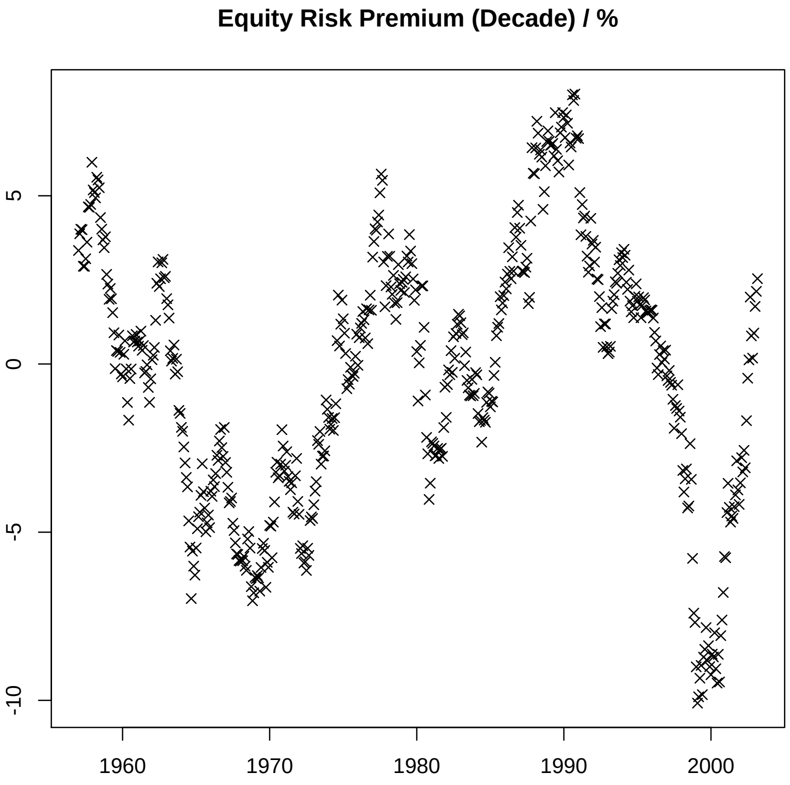
Equity Risk Premium (1957-2013, Annual Returns)

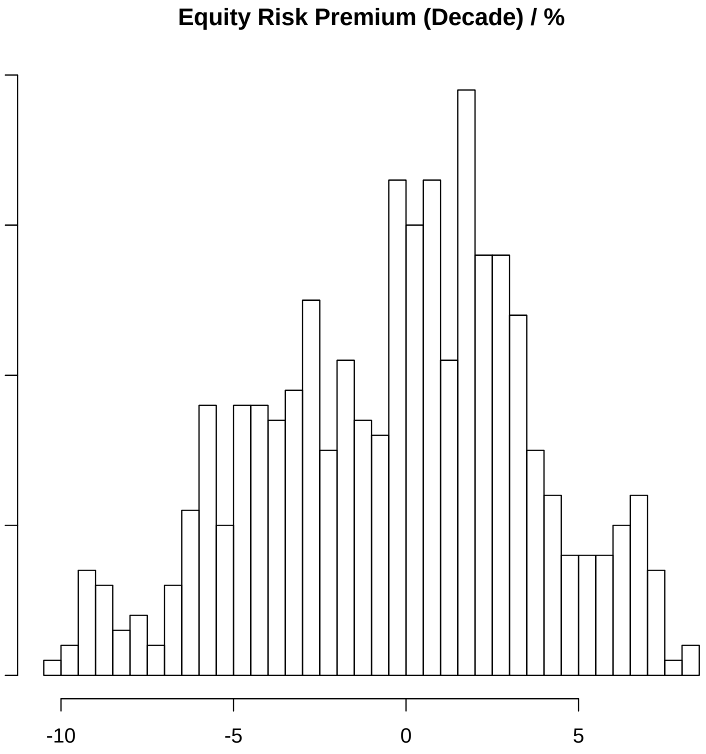




S&P 500 annual returns minus yield on 10-year USA gov.bonds. Dividends on S&P 500 and changes in bond-prices are ignored.

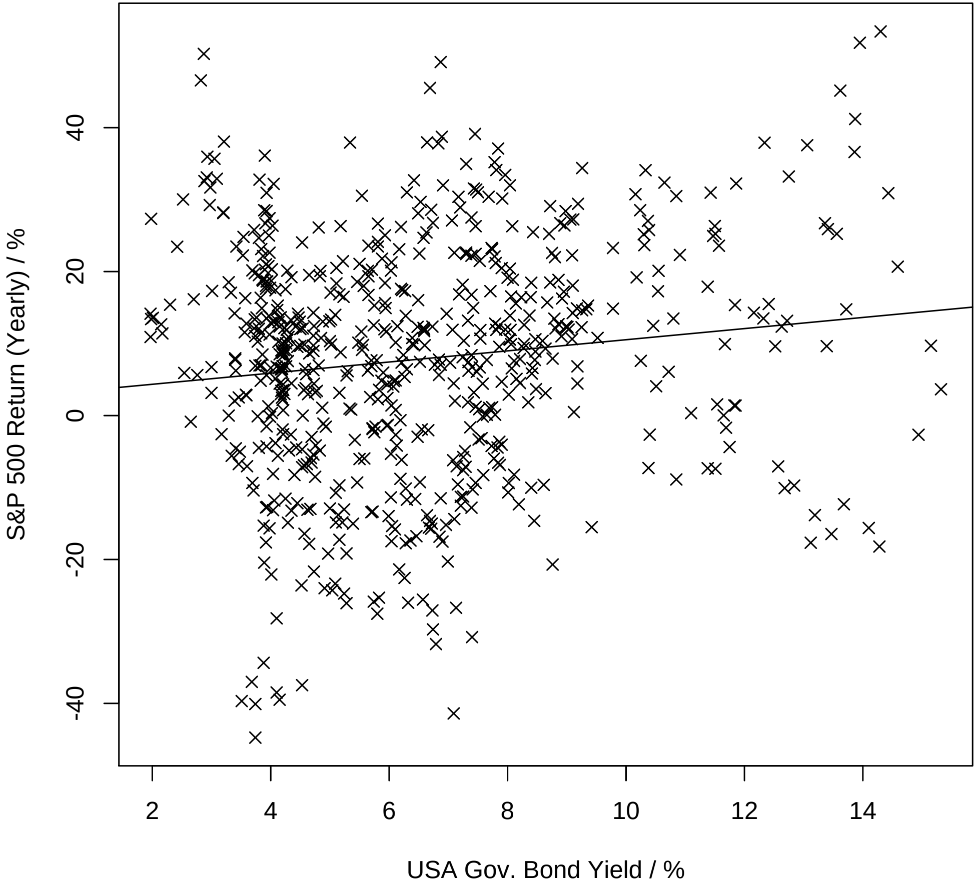
Equity Risk Premium (1957-2013, Decade Returns)

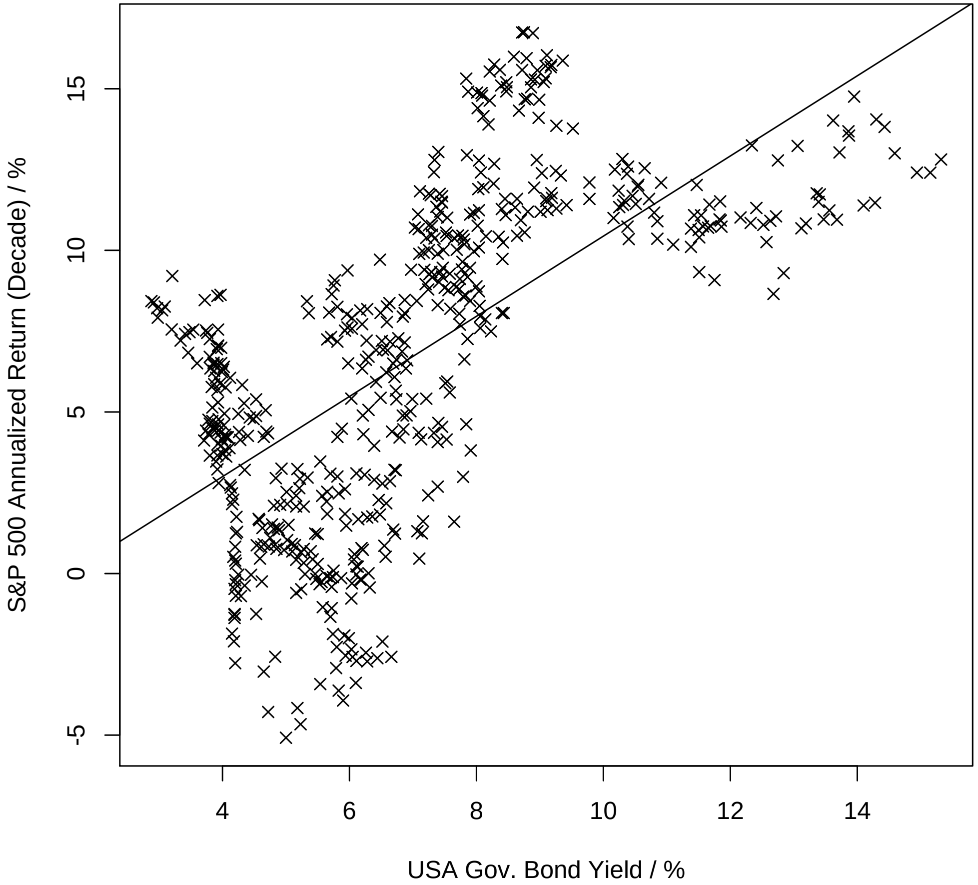




S&P 500 annualized 10-year returns minus yield on 10-year USA gov.bonds.

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