

**Does the market risk premium
change over time?**

Discussion of Prof. Jagannathan's presentation

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My takeaways from Prof. Jagannathan's presentation

- ◆ Methods for estimating the MRP are imprecise
 - new data over time implies estimates will change
 - cannot tell if changes are “real”
- ◆ Estimates based on past returns may move in the “wrong” direction if the MRP changes
- ◆ Forward-looking estimates may under-estimate MRP in “bubble” periods
 - if the tech bubble was “irrational exuberance”, MRP did not fall (as much as) forward-looking models suggested

My takeaways (contd.)

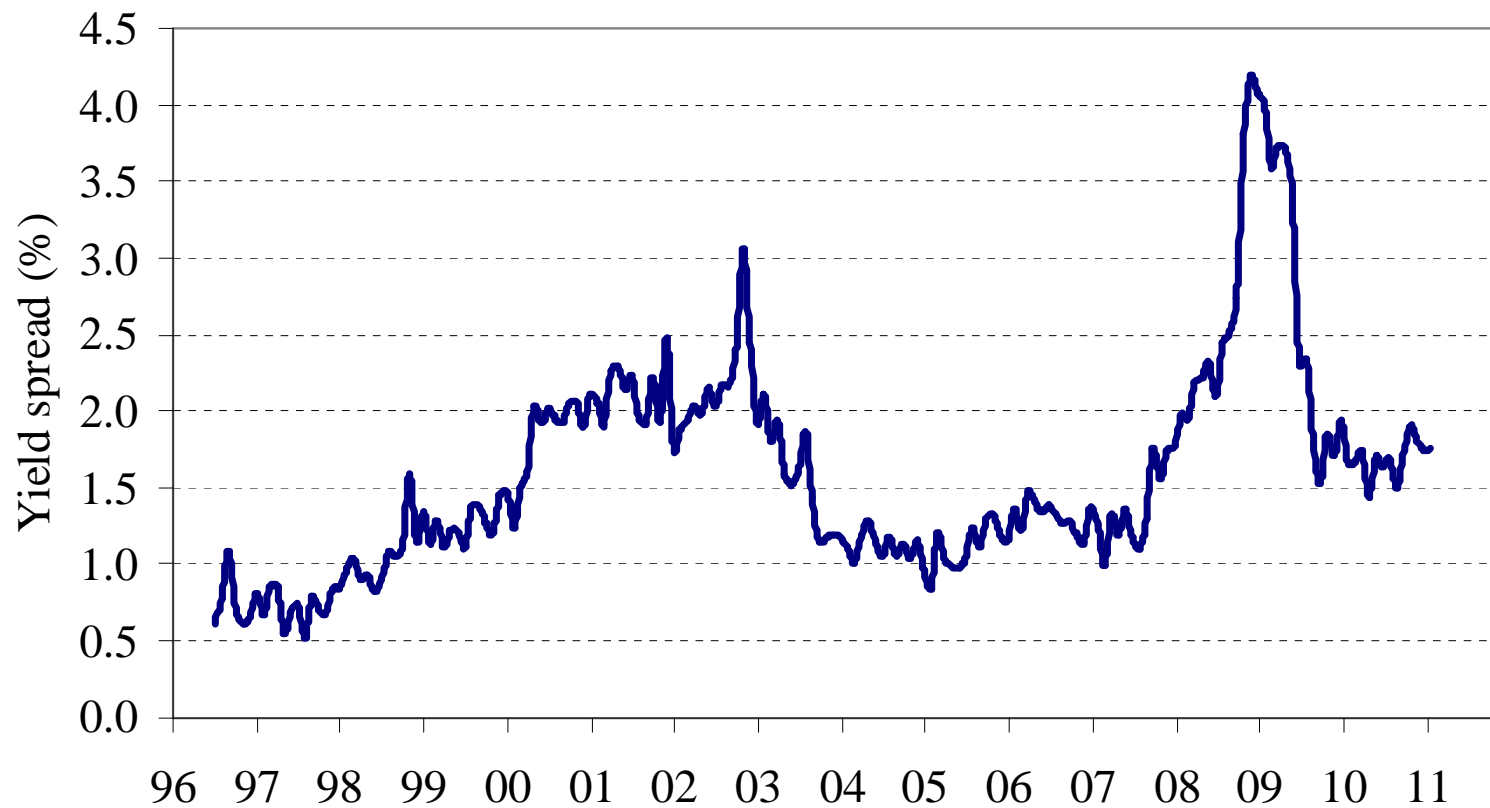
- ◆ Estimating based on past returns is relatively straightforward
- ◆ If MRP is varying, a forward-looking method is conceptually advantageous
 - but practically difficult
- ◆ Surveys to be treated with caution
- ◆ A “rule of thumb” estimate may be OK for long-term investments, although
 - where to get the rule of thumb estimate?
 - is it a point estimate or a range?

Challenges for regulators

- ◆ Even if long-term MRP is stable over time, MRP estimates are not
- ◆ What was (is) the impact of the credit crisis?
- ◆ Different models disagree
 - risk of “model shopping”
- ◆ Cost of capital decisions seem to be particularly contentious

Example: evidence from bond yields

Spread between 20-year BBB utility bonds and Treasury bonds



How to respond

- ◆ Is the MRP a number or a “method for finding a number”
 - or is it a range
 - or is it several methods
- ◆ Need to be internally consistent
 - long-term vs short-term interest rate
 - cost of equity (risk-free rate plus MRP) may not be as volatile as the risk-free rate
- ◆ Nature of the regulatory “task”
 - generic proceeding to set MRP for next N years for all utilities
 - vs specific proceeding to set cost of equity for individual utility

Final thoughts

- ◆ MRP *estimates* change over time
- ◆ Hard to avoid the need for judgement
 - impact of the financial crisis
- ◆ Is there an asymmetry?
 - costs of setting MRP too low vs costs of setting MRP too high

References: “regulatory practice” on MRP

Review of the weighted average cost of capital (WACC) parameters, Australian Energy Regulator (2009)

(AER website)

Review of Regulatory Cost of Capital Methodologies, *Brattle* study for the Canadian Transportation Agency (2010)

(on request from info@otc-cta.gc.ca)

New Zealand Commerce Commission Expert Panel Report on MRP, Franks, Lally and Myers (2010) (Commerce Commission website)

Current Issues in the Application of the CAPM to Rate Regulation, *Brattle* paper for Wisconsin Investor-Owned Electric Utilities (2005)

(http://wpui.wisc.edu/readings/RRRR05/Wisconsin%20MRP%20White%20Paper_10-19-04.pdf)

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