Here, I challenge you not only on Python concepts from class but also on your ability to frame useful research designs.

I set time aside on Monday class to discuss your solution strategy and findings and to help you maximize your learning.

Feel free to post questions on Ilias. I check it from time to time and post answers.

Hint: Work with BIC implied optimal lag lengths

Hint: When working with vol, use a Gaussian GARCH(1,1)

Hint: rely only on the attached data set

Hint: Assume options-implied vol shares a 100% correlation with the volatility of the respective underlying

A data scientist at a hedge fund wants to understand whether there are actionable cross-asset movements in euro-area government bond and equity Blue Chips market that the fund could exploit in the future. The following questions are of particular interest

1. How do surprise moves in ECB interest rate decisions affect prices of bonds and equity over the next 5 trading days? Which trading strategies, if any, do you recommend? Check for robustness using a VAR(1). What do you recommend given the data evidence so far?
2. How does a surprise move in ECB interest rate decisions affect the price of options? Which long-short euro-neutral strategy do you recommend?
3. Does the ECB respond to equity market uncertainty? Recommend one promising trading strategy.
4. The US central bank is said to move markets. Check how surprise moves in Fed interest rate policies affect ECB decision making, euro-area bond, equity and option markets. Suggest promising trading strategies