

## FINM7403 Semester 1 2024

UQ Business School, University of Queensland

---

### Assignment Overview

This is an individual assignment total of 30 marks counting towards 30% of your final grade.

Assignment due: 7<sup>th</sup> May 2024 15:00. Submit electronically on Blackboard and Turnitin.

---

### Capital Asset Pricing Model (CAPM) and Monetary Policy

You are required to test the Capital Asset Pricing Model on 25 *U.S. portfolios formed on Size and Value for the sample period from January 1998 to December 2023*.

You need to download data file “**data.xlsx**” from the Assignment folder.

Complete the following task:

- A. Perform the CAPM test. Does the CAPM work empirically for the sample period from January 1963 to December 2023? Present the evidence to support the conclusion. **(5 marks)**

The US Federal Reserve (FED) controls three tools of monetary policy - open market operations, the discount rate, and reserve requirements. While the Board of Governors of the FED is responsible for the discount rate and reserve requirements, the Federal Open Market Committee (FOMC) is responsible for the open market operations. The FOMC holds eight regularly scheduled meetings per year. At these meetings, the Committee reviews economic and financial conditions and determines the appropriate stance of monetary policy. Based on the assessments, they will make important interest rate announcements. FOMC announcements are perhaps the most-watched events in the financial markets across the globe.

Complete the following tasks:

- B. Perform the CAPM test for ***FOMC periods as well as non-FOMC periods***. Does the CAPM work? Present evidence to support the conclusion. You need to perform the CAPM test *on the same 25 portfolios in Part A from 1998 to 2023*. **(5 marks)**
- C. Why do you think that the CAPM works/does not work in two different subperiods? Your answer should demonstrate your understanding of relevant economic theories. Your arguments/reasonings/discussions should be supported by academic and/or industry research.

(10 marks)

- D. Repeat the analyses in Part B *with 25 developed portfolios excluding U.S. portfolios formed on Size and Value*. Is your conclusion similar or different from those of B? Discuss the economic implications of your results. Your answer should demonstrate your understanding of relevant economic theories. Your arguments/reasonings/discussions should be supported by academic and/or industry research.

(10 marks)

---

**Data Info:**

The portfolio data are downloaded from Professor Kenneth French's website [http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data\\_library.html#International](http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html#International). Read the data descriptions carefully.

The **"Size Value Portfolios"** sheet includes 25 portfolios formed on U.S. Size and Value returns (daily value-weighted including dividend returns).

The **"FF factor"** sheet included Fama/French 3 factors returns (daily value-weighted returns).

The **"International Portfolios"** sheet includes *25 developed portfolios excluding U.S. portfolios formed on Size and Book-to-Market Value* returns (daily value-weighted including dividend returns)

**"FOMC dates"** sheet contains all of the FOMC scheduled meeting dates from 1997 to 2023.

## **Submission Info:**

### **Submission:**

- **Submit one Excel file on Blackboard site.**
  - a. Name the files FINM7403 Lastname Studentnumber.xlsx where X is the problem number, Lastname is your last name, Studentnumber is your student number.
  - b. The Excel file should contain answers for Tasks A, B, and D (calculations only).
  - c. You may submit these Excel files as many as you like, but only your last submission will be graded.
- **Submit one written report on Blackboard and Turnitin.**
  - a. Name the files FINM7403 Lastname Studentnumber.pdf where Lastname is your last name, Studentnumber is your student number.
  - b. The written report should contain answers for Tasks C (1500 words), and D (Discussions, 1000 words).
  - c. You may submit the pdf written report *on Blackboard as many as you like*, but only your last submission will be graded. However, submit the written report *only once on Turnitin*.

### **Notes:**

- Excel: Your Excel files should include all workings and calculations. Formulas for the calculations should have cell references wherever possible. If you have computed a number incorrectly and just typed that number into the spreadsheet (or typed a formula using numbers when cell references could have been used), you will not receive partial credit for any portion of your computation that is correct.
- A written report (maximum 2500 words) in a pdf or word document is required for Turnitin check.