6.1 Fama and French Multifactor Anomalies Questions

Please be ready to answer, pointing to statements, numbers, or pictures in the papers. Note: Read the bottom of p. 55 and 56. The “model” is equation (1), not equation (2)! A big point today is to distinguish the meanings of (1) and (2)!

1. In Table 1, which kinds of stocks have higher vs. lower average returns?
2. How do Fama and French define “value” and “small” stocks?
3. Do “value” stocks have high book to market ratios or low book to market ratios?
4. Are small stocks ones with small numbers of employees, small plants, etc.
5. Do FF’s “growth” stocks have fast-growing earnings, assets, or sales?
6. Relate Fama and French’s Table 1 panel A to forecasting regressions like we ran last week? What regression would capture the same ideas?
7. Does the spread in average returns in Table 1A present a puzzle, by itself? (Hint: why might you not just go buy small value stocks based on the evidence of this table?)
8. How are FF’s “SMB” and “HML” factors constructed? (one sentence)
9. How is Fama and French’s Table 1 Panel B regression different from regressions you would run to check the CAPM?
10. Can we summarize Fama and French’s model amount to saying “We can explain the average returns of a company by looking at the company’s size and book/market ratio?”
11. Does variation in market betas across the 25 portfolios explain the variation in average returns across the 25 portfolios?
12. What does explain variation in average returns across the 25 portfolios?
13. In “Discount rates” and overheads, I show CAPM betas explain size portfolios very well. Yet in Table 1, market betas are about 1 across the full range of size. What explains the difference between the results?
14. Do the strong t statistics on hml and smb in Table I, plus the large $R^2$, verify that the Fama French model is a good one?
15. Every model should have a test. What is the test of the FF model, and does it pass?
16. Is it a tautology to explain expected returns in 25 size and B/M portfolios by betas on size and B/M factors?
   A: No. But it’s really subtle. Consider the letter of the alphabet example.
17. How does a pure value sort work – not just the double sort on value and size? Does replacing B/M with similar variables like cashflow/price or earnings/price give similar results, or is B/M really special?
18. Which gets better returns going forward, stocks that had great past growth in sales over the last 5 years, or stocks that had poor past growth in sales?
19. How do Fama and French explain the average returns of stocks sorted on sales growth?

20. Sales growth and B/M are very correlated across firms. In the double-sort portfolios (which are like multiple regressions) of Table IV and V, does sales rank still help to forecast returns controlling for B/M? Does B/M still help to forecast returns controlling for sales growth? Does the independent movement in expected returns with sales growth, holding B/M constant, correspond to the b, s or h betas? (Note FF don’t say much about this.)

21. Which results show the “long-term reversal” effect in average returns best? Which show the “momentum” effect best? I pre 63.

22. Why do the sorts in Table VI stop at month -2 rather than go all the way to the minute the portfolio is formed?

23. Does the FF model explain every anomaly thrown at it in this paper?

24. Are the returns to momentum portfolios correlated with the returns to value?

25. What is FF’s “minimalist” interpretation of their model (p. 5, p. 75)

26. Do FF think their model is a ICAPM or an APT? What do you think?

27. It looks like we should all buy value, but we can’t all buy value, someone has to hold the growth stocks. If we all try to buy value, the value effect will disappear because we drive up the prices. How to Fama and French address this conundrum? Do they think investors are just too behavioral to notice value? Do they think the effect will go away when investors wake up? (hint, p. 76, 77)

28. Momentum seems to be a big problem for the model. What do Fama and French have to say about momentum?

29. (Though about the introduction, these are easier to answer after you’ve read the paper.) On p. 55, why do FF refer to (1) as their “model,” and not (2)?

30. On p. 56, FF say ”the three factor model in (1) seems to capture much of the cross-sectional variation in average stock returns” (my emphasis). What result in what table supports this statement?

31. On p. 56, bottom, FF say “the three factor model in (1) and (2)...is a parsimonious description of returns and average returns.” Why did they add (2) and make the distinction between “returns” and “average returns?” What additional results in what table support the “returns” word?

6.2 Discount rates questions

These questions cover only this week’s reading, p. 1058-1064.

1. Figure 6 says expected returns are higher for value portfolios. Does the paper say this is the value puzzle?

2. What central feature of Figure 6 captures FF’s “explanation” of the value puzzle?
3. On p. 1060 I say “Covariance is in a sense Fama and French’s central result.” What table or set of numbers in Fama and French convey this result?

4. What regression does “discount rates” suggest to provide the same information as FF’s Table 1A, in the same way we forecast returns last week?