Empirical Asset Pricing

You have 2 hours to complete the exam. The exam is open-book. Good luck!

1. Barrot, Loualiche, and Sauvagnat have a forthcoming article in the Journal of Finance by the title "The Globalization Risk Premium". Here's the abstract:
   In this paper, we investigate how globalization is reflected in asset prices. We use shipping costs to measure firms' exposure to globalization. Firms in low shipping cost industries carry a 7% risk premium, suggesting that their cash flows covary negatively with investors' marginal utility. We find that the premium emanates from the risk of displacement of least efficient firms triggered by import competition. These findings suggest that foreign productivity shocks are associated with times when consumption is dear for investors. We discuss conditions under which a standard model of trade with asset prices can rationalize this puzzle.

   (a) Suggest how you would structure a test of the claim that "...Firms in low shipping cost industries carry a 7% risk premium..." How can we be sure that this premium does not originate from known risk factors?

   (b) Provide your interpretation for the claim that "...suggesting that their cash flows covary negatively with investors' marginal utility..."

   (c) An alternative interpretation of this finding has to do with investors' mistaken interpretation of the effects of export competition on firm profitability (i.e. Ex-Post Realized Returns as opposed to Expected Returns.). Try to sketch an explanation in which investors are surprised by firm performance in a way that generates the observed premium. Suggest what tests you would run to rule out this alternative story.

   (d) The authors entertain the question of whether the price of foreign competition risk is positive or negative. They argue that, in case of positive price, you would expect the premium to be located among the most productive firms that can take advantage of exports. In case of negative price of risk, the premium would be located among weaker firms that suffer from foreign competition.

      i. Explain how each of these two cases could be rationalized. In your answer, refer to covariance of the risk factor with the state of the aggregate economy (i.e. consumption risk)

      ii. Suggest how you would discriminate empirically between these two possibilities

   (e) Now, consider a model in which domestic consumers can invest in foreign companies, i.e. they are internationally diversified. In this model, domestic consumers will benefit when foreign companies can expand their export markets. How would you modify this model to obtain the negative price of risk that is observed empirically?

2. In the April 2019 issue of the Journal of Finance, Bouchaud, Krueger, Landier, and Thesmar have a paper by the title "Sticky Expectations and the Profitability Anomaly".

The abstract states:

We propose a theory of the "profitability" anomaly. In our model, investors forecast future profits using a signal and sticky belief dynamics. In this model, past profits forecast future returns (the profitability anomaly). Using analyst forecast data, we measure expectation stickiness at the firm level and find strong support for three additional model predictions: (1) analysts are on average too pessimistic regarding the future profits of high-profit firms, (2) the profitability anomaly is stronger for stocks that are followed by stickier analysts, and (3) the profitability anomaly is stronger for stocks with more persistent profits.

(a) Describe in detail the profitability anomaly

(b) Discuss papers that provide rational explanations for the profitability anomaly. What are these explanations?

(c) Let us come back to the paper in JF by Bouchaud et al. mentioned above. Expand on the paper's abstract. How would an explanation based on sticky expectations account for the profitability anomaly?

(d) How would you test this behavioral explanation using analysts' forecasts as a proxy for investors' expectations?

(e) Can you use the same explanation to say something about return momentum? In what sense?