Good Econometrics for Better Finance

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Matthias Fengler is professor of financial econometrics and mentor of the Masters Programs MEcon and MiQEF. He serves on the joint program commission. How can good financial econometrics guide reliable strategies in financial decision making for firms, banks and households and lead to better economic outcomes? Why should students care to invest in econometric methods?

You are teaching financial econometrics in various forms. What is financial econometrics and how can it help achieve better outcomes in finance and the real economy?
Econometrics is the application of statistical methods to describe and forecast economic data and to test economic hypotheses. In financial econometrics, we focus on questions particular to capital markets, such as the risk-return relationship, risk in general, and topics specific to corporate and financial governance. Capital markets that are ill-functioning, e.g., due to excessive risk-taking, do not route financial resources to their most efficient usage. Therefore, insights from financial econometrics have vital implications for the real economy.

How is financial econometrics changing in the era of digitization and big data?
Ironically, financial econometrics was the first branch within econometrics to face the big data challenge: since the mid 2000s, we have access to high-frequency trade and quote data of all major global stock exchanges; this data influx even created its own sub-discipline: high-frequency econometrics. More recently, the cross-section of data types has changed even more dramatically: I am thinking of order book data, credit card transaction data, financial text data etc. … We started to no longer look exclusively on financial price data.

How do the newly designed MEcon and MiQEF programs prepare our students for an even more successful career track?
Dealing with the afore-mentioned challenges requires both a solid methodological education and a first-rate command of economic theory. In our MEcon and MiQEF programs, we cultivate this insight in first laying a sound basis in economic theory and methods, which are an excellent starting point into our electives such as financial econometrics, asset pricing, and multivariate data analysis.
You previously worked in private industry. Do we need to be more practice oriented at university?
We should not aim at training students with all potential practicalities they might face in their real work life. Firms are much better at doing this. Rather, we should equip students with a general toolset and – maybe more importantly: an open mindset – that is applicable in a variety of different contexts. Today’s labour markets require talents that can adjust rapidly to different needs because job requirements are changing at an incredibly fast pace. Universities need to train general skills that are valuable for a whole life and that are not washed away with the next wave of innovation.

What is your newest own research? Are you advising financial sector firms on how to improve decision making with clever econometrics?
I am currently studying the extent to which financial text corpora convey information about price formation on capital markets. And guess what: reading text matters! I also advised financial sector firms on specific problems in portfolio optimization and risk modeling. From this, I recently learned how surprisingly little we know about the empirical performance of tests on structural forms of high-dimensional covariance matrices – this could be a nice topic for a master’s thesis.

Are you applying financial econometrics in your private life?
Each day, I optimize the risk-return relationship of my daily coffee consumption….

For more information, please visit Matthias’ website or write to matthias.fengler@unisg.ch.