Progress Report

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The first year of the PhD in Finance pathway are mainly about taking courses and preparing for the comprehensive exam. In the first two terms, I undertook 6 modules which include M100 Econometrics Methods, M110 Microeconomics II: Game Theory, MF10 How to do Finance, M320 Cross sectional and Panel Data, M140 Behavioural Economics and M150 Economics of Network. I have achieved a distinction in M320, finished exam for M140 and submitted assessment for M110. Assessments for the remaining modules are in form of coursework and report, which will be submitted by the beginning of Easter term.

During the Michaelmas term, I undertook the MF7 project "Human Behaviour and Finance" under the supervision of Professor Bart Lambrecht. The project was revolved around the literatures in behavioural finance in the past two decades and made an attempt to applied the analytical framework of behavioural finance in explaining phenomena in cooperate finance. A brief review of subset of cognitive biases that are cited frequently in financial research is presented. Moreover, I also provided a review about various modelling methodologies that are used in examining cross-sectional and time series anomalies with behavioural biases in theoretical asset pricing literatures. The third part the project is an analytical study of the model by Daniel, Hirshleifer and Subrahmanyam in 1998 which helps to understand the finance implication of overconfidence. In this section, detailed derivations of the results in the paper are shown. I also found some mistakes in the paper and made corrections. Comparative statics was done by simulation based on the corrected result. The numerical analysis with respect to change level of overconfidence, learning process, informativeness of public signals and overreaction to public signal shows that even though the "hump-shape" result is less significant based on the corrected formula, the model is still quite stable for a wide plausible range of parameters. In the last section, I made an attempt to extend the model to cooperate finance content. The basic idea is that irrational investors are overconfident about the precision of the private signal they received about the earning prospect of an investment opportunity that the firm has. Since the value of the firm is determined by outsider's valuation on the potential investment opportunities, a sophisticated manger can make decisions contingent on the misperception of overconfident investors as well as his managerial time horizon. Consequently, investment takes place whenever the present value of cash flows generated by the investment opportunity is greater the acquiring cost. Therefore, overconfidence of price makers may lead to overinvestment when the private signals they received are positive and underinvestment when the signals are negative. I tried to model this idea based on the DHS model and methodology proposed by Stein (1995). More refinement and justification are needed in order to support this idea. Despite of the limited results so far, understanding corporate decisions from a behavioural prospect seems to be a promising field for future research.