1 Research interests and expertise

My journey in the economics profession began with an interest in wealth inequality. In the first half of my time as a graduate student, I took as many theory courses as the Economics department offered; in fact, the writing sample attached is from my second-year paper on a theoretical approach to proposing alternative measures of wealth inequality.

In the fall of my third year in the program, I took an interest to heterogeneous agent (HA) macroeconomics for two main reasons. The first is that this area of research is a blend of mathematics (describing the solution to households' dynamic consumption-saving decisions) and computational methods. I share the perspective of the many researchers working on HA models: any model that hopes to be persuasive will require heterogeneity among the households; such models *must* be solved numerically.

This pivot to computational macroeconomics has led me to hone my coding skills, specifically in Python (some of the many attractive features of Python for numerical computation are discussed at this link). In fact, I am currently a research assistant for the Econ-ARK Project headed by Prof. Christopher Carroll.[1] The main set of tools provided by the project are in the Heterogeneous Agents Resources and toolKit (HARK). Its primary goal is to provide *reproducible* code to solve and extend these sorts of HA models.

2 Ongoing and completed research

I've mentioned the HARK project also because I am using those tools in my dissertation research. My job market paper, which is a work in progress, constructs a standard HA model of consumption-saving for households who are ex-post heterogeneous due to idiosyncratic labor income risk. Additionally, I allow for households to be heterogeneous ex-ante, as in the models by Kaplan and Violante 2022 and Carroll et al. 2017. Most such models assume that the rate of return is identical across households, which very recent work by Fagereng et al. 2020 has discovered evidence against. Using insights and elements from this paper, my paper examines how much wealth inequality would be produced if the only heterogeneity were in the rate of return. Preliminary results find that such rate of return heterogeneity is sufficient to match measurements of inequality from the Survey of Consumer Finances.

3 Project proposals for internship period

Since rate of return heterogeneity is at the core of my research program, visiting the bank of Norway and learning more about how these data are constructed would allow for a major imporivement in the persuasiveness and credibility of my paper. I would hope also to gain a deeper understanding of the registry data and to explore whether

[1] Chris is my principal advisor, and is one of my references.

there are other kinds of ex-ante heterogeneity which could or should be incorporated in a HA structural model.

3.1 Empirical estimates of a relationship between trust and the rate of return

The authors go on to mention "financial sophistication, the ability to process and use financial information, the ability to overcome inertia, and... the talent to manage and organize their businessess" as potential explanations for these persistent differences in returns across individuals. In the next phase of my research, I intend to explore another channel: the role of trust.

Butler, Giuliano, and Guiso 2016 uses data from the European Social Survey to establish an empirical relationship between trust levels measured in the survey and income data for the households. In particular, the paper finds that there is a "right amount of trust"; that is, the relationship between trust and income is humped shaped. An intermediate level of trust is associated with the maximal level of income.

Since the ESS data from the Butler, Giuliano, and Guiso 2016 work includes Norway as one of the countries for which the intensity of trust levels is measured for individuals, my hope would be that it is possible to use either direct measures of trust, if any such are linked to the registry dataset, or proxies for trust estimated from other datasets. The next step would be to describe the empirical relationship between individual trust levels and registry-measured returns to wealth. In particular, it would be interesting to see if the hump-shaped relationship between trust and economic performance found in Butler, Giuliano, and Guiso 2016 holds also for returns to wealth.

With these results, I could go back and examine whether heterogeneity in trust (which is pervasive in the United States) could potentialy explain a substantial portion of wealth inequality.