Essays on Job Market Screening, In-Group Bias and School Competition

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To the many people who have supported me

Foreword

This volume is the result of a research project carried out at the Department of Economics at the Stockholm School of Economics (SSE).

This volume is submitted as a doctoral thesis at SSE. In keeping with the policies of SSE, the author has been entirely free to conduct and present his research in the manner of his choosing as an expression of his own ideas.

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Chapter 1

Introduction

This dissertation consists of four essays spanning several different topics. As such they are not easily summarized. Some are primarily theoretical, others mostly empirical. There are some themes running through them all, however. They all touch upon issues that are prevalent in contemporary political debate. How to provide high-quality education, deal with unemployment in recession and understand discrimination are all important questions that I care passionately about. The reader is thus recommended to read the papers primarily as independent endeavours. In this introduction I will briefly summarize each of these essays in a way that is hopefully accessible to people outside the immediate research field.

The first chapter deals with unemployment. Me and my coauthor Saman Darougheh extend on the model of multiple applications developed by Blanchard and Diamond (1994). The aim is to create a model that can be used to explore effects of screening and discrimination in the labor market. In order to do this, the model must allow employers to receive multiple applications they can choose between. This turns out to be a problem that is not entirely trivial, especially when simultaneously trying to replicate the US economy in steady state. We include optimizing behaviour from firms, multiple applications per job-seeker and heterogeneity in match values. These changes allow the model to generate multiple applications while still matching equilibrium job-finding rates observed in US data. We solve this model fully and find that it generates wage dispersion. While the matching function follows the standard model in

having constant returns to scale it differs in having a non-constant elasticity with regards to unemployment. We provide evidence for this being the case in the Swedish labor market, suggesting that the model is closer to data than the standard matching function.

The second chapter builds on the first. Specifically, it draws on the lessons on how to build a model of multiple applications and uses that to explore the issue of screening. The question we ask is whether variations in screening of job applicants can explain sluggish recoveries. Screening is the process where employers find out how good applicants are. This can include how good they are at teamwork, how industrious they are and so on. Generally, these are qualities that cannot be gleaned from a CV and thus requires some more costly investigation, such as extensive interviewing or a traineeship. The idea is that there is some fixed cost to screening this way. Since firms can choose between hiring at random without screening, this implies that screening happens more if firms are receiving more applicants. We then model costly screening in an environment with heterogenous job seekers and multiple applications. An increase in applications per vacancy intensifies screening and an increase in screening intensity reduces pool quality. A less tight job market therefore increases screening and leads to a deterioration of the applicant pool quality, leading to a further "loosening" of the vacancy market. Due to a general equilibrium mechanism, as in Blanchard and Diamond (1994), most vacancies receive zero or one application whenever unemployment is of a reasonable magnitude. In order to show that our mechanism is not driven by the zero and one corner cases, we extend the model to feature multiple applications per vacancy. For multiple applications to happen there must be some returns to scale in the number of applicants, something we achieve with a fixed cost of screening. We extend the model to (i) allow for multiple applications per applicant, and (ii) introduce match-specific heterogeneity in productivity. Together, these two extensions allow us to match both the unemployment rate and a larger number of applications per vacancy. In the baseline simulation, the screening externality does not amplify the unemployment response to TFP shocks significantly. In contrast, the duration until recovery after a negative TFP shock doubles. This result suggests that modelling screening can help explain why the economy takes so long to recover to normal levels of unemployment after a recession.

The third chapter deals with education. The introduction of school vouchers in Sweden led to a significant increase of privately run primary schools. To-

gether with my coauthor Erik Lakomaa, I test how the subsequent increase in local competition affected educational outcomes. Competition is measured in several different ways, including the share of pupils attending private schools and the market concentration. We use a comprehensive dataset of all Swedish 9th grade students from 1998 to 2013, which increases the robustness of the results significantly. This also allows us to control for the year, municipality, socioeconomic background of the parents, number of pupils and the share of immigrant pupils. We find that competition significantly increases grades during this period. Establishing private schools and especially those run by professional school companies, affect grade averages positively. Since there is an animated political discussion about grade inflation, we also test whether competition improves scores on national exams and find that it does. While there is some evidence suggesting grade inflation, a real effect of competition cannot be ruled out. This unique dataset allows for a rich set of controls which enables more secure conclusions to be drawn about the effects of competition on academic outcomes. It also suggest that the type of school matters for the competitive pressure and that market concentration accurately captures competition effects in the Swedish education markets, both of which are new contributions.

The final chapter relates to one of my foremost hobbies, competitive debating. In British Parliamentary debating, teams of students are randomly assigned to argue for or against topics in politics and philosophy. It is one of few competitive activities in which men and women compete on an equal footing and where evaluation is also subjective. This paper uses data from several large international debate tournaments to look at bias based on gender and nationality from judges toward participants. While internalized bias cannot be observed in this data, there is no overall evidence of gender bias. There is, however, a significant national bias in that judges give higher scores to debaters representing institutions in the same country as that of the judge. There is also some indications that participants may favor their own gender unless the topic is one associated with the opposite gender, in which case the opposite occurs. Further research would be needed to draw firm conclusions about this.