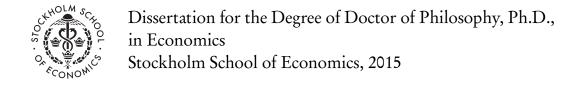
## Credit, Labor and the Great Recession

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Simon Wehrmüller





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#### 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 doctor's 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.

SSE is grateful for the financial support provided by the Jan Wallander and Tom Hedelius Foundation which has made it possible to fulfill the project.

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Stockholm, August 2015 Simon Wehrmüller

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#### Introduction

This dissertation consists of three self-contained chapters that explore the effect of financial markets and regulations on macroeconomic outcomes.

In the first chapter *Bank Lending and personal income in the Great Recession* I investigate the effect of bank lending on local income. The paper suggests a new way to identify an exogenous shock to the credit supply of a United States core based statistical area. I create a measure of credit supply using fluctuations in a bank holding company's total corporate and industrial lending together with the number of branches a bank has in an area. I find economically and statistically significant evidence that credit matters for local income. If I let the exposure of a region be proportional to the number of bank branches, then I find that a one standard deviation drop in the loan shock leads to a 0.2 percentage points drop in annual income growth. The measured effect is likely to be a lower bound on the actual bank lending channel: Strategic withdrawals of funds by banks attenuate the coefficient estimates, and I look at local economies, as opposed to firms, thereby accounting for general equilibrium effects.

The second chapter *Credit channel in a matching model with two technologies* describes a model with search in the labor and credit markets. A one-worker firm has access to a less productive technology with which it produces the single good in the economy. It sells the good inelastically and pays the wage of the worker and the cost of search for a banker. With the help of a banker, the firm gets access to a more productive technology. The tightness of the credit market in this economy is determined by the difference between the two technologies. I show that a contraction in the economy that keeps the relative productivity constant (therefore changing the absolute distance), is amplified through the crowding-out of bankers. In an extension, I show how financial liberalization can lead to an increase in unemployment, if entry into

banking is not free.

The third chapter *Employment protection and work effort* is joint work with Carl Magnus Bjuggren. In this study, we show how employment protection and unemployment are related when output depends on work effort. We develop a competitive search equilibrium where the output and the separation rate may depend on the effort level chosen by a worker. We show that employment protection can affect output while leaving the separation rate constant. This is due to changes in the behavior of both workers and firms. We use our theory to investigate a 2001 labor market reform in Sweden that substantially increased some firm's threat to lay off shirking workers. The reform left the separation rate constant, whereas wages and productivity increased. This suggests that the reform changed the effort level among workers.