Report on Bachelor / Master Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University in Prague

Student:	**Bc. Tomáš Troch**
Advisor:	**PhDr. RNDr. Josef Stráský**
Title of the thesis:	**Wealth inequality in dynamic stochastic general equilibrium models**

***OVERALL ASSESSMENT** (provided in English, Czech, or Slovak):*

Presented master thesis investigates the ability of dynamic stochastic general equilibrium (DSGE) models to model economic inequality.

Author first defines inequality, discusses diferrent types of inequality and reviews empirical assessment of inequality (mainly in US) in a compact literature review. Current papers on modelling economic inequality within DSGE framework are reviewed in a detail to explain the basis for the developing own DSGE model. DSGE modelling of economic inequality requires incoroprating heterogeneity in economic agents that can be induced in two ways: first, ex ante homogeneous agents face idiosyncratic shocks (e.g. to employment) that cause inequality and second, agents are divided to diferrent classes (eg. capitalists and workers who differ in ability of capital formation).

Author combines these two approaches in his thesis. To our knowledge, a DSGE model using both types of heterogeneity has not yet been developed. Student designed relatively small DSGE model that can be ascribed as a pure RBC model. Development and solution of the DSGE model with two types of heterogeneity appeared to be substantially technically demanding. Student mastered all the pecularities of advanced DSGE modelling that are well beyond the content of the courses at IES.

It is shown that RBC modelling in the DSGE framework is able to generate substantial economic inequality when two types of agents heterogeneity are included. This can be considered as the key contribution of the thesis. However, achieved inequality in the model is significantly lower than the empirical findings for the most plausible choices of model parameters. This discrepancy is thoroughly discussed and several possible extensions are suggested. The crucial extension would be introducing wage differentials based on the believe that agents are heterogeneous in their capabilites and such heterogeneity is directly mirrored in a diferrent wage.

Some of the possible extensions could have been undertaken in the diploma thesis and the DSGE modelling of economic ineqality could have been contrasted to some other methodologies of theoretical modelling of inequality. Possible model extension by introducing wage differentials might be interesting topic for discussion during the defense.

Student himself brought up this interesting topics and he worked on the diploma thesis responsibly throughout the acadameic year. Final manuscript has been carefully prepared in a timely manner.

I believe that shortened version of the master thesis is eligible for publication as IES Working Paper and I woud like to recommend this thesis for the Dean of the faculty distinction.

***SUMMARY OF POINTS AWARDED** (for details, see below):*

CATEGORY		POINTS
Literature	*(max. 20 points)*	18
Methods	*(max. 30 points)*	30
Contribution	*(max. 30 points)*	28
Manuscript Form	*(max. 20 points)*	20

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TOTAL POINTS	*(max. 100 points)*	**96**
GRADE	**(1 – 2 – 3 – 4)**	**1**

NAME OF THE REFEREE: Josef Stráský

DATE OF EVALUATION: 10.6.2014

Referee Signature