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2015 (Oral): Macroeconomics (*with distinction)*, International Trade
2014 (Written): Macroeconomics, Microeconomics

Dissertation Title: *Essays on Macroeconomics and Inequality*

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Professor Giuseppe Moscarini
Professor Tony Smith
Professor Per Krusell

Expected Completion Date: May 2019

Degrees:
Ph.D., Economics, Yale University, 2019 (expected)
M.Phil., Economics, Yale University, 2015
M.A., Economics, Yale University, 2014
M.Sc., Economics, Institute for Advanced Studies Vienna, 2013
B.Sc., Business Administration, Vienna University of Economics and Business, 2011

Fellowships, Honors and Awards:
Carl Arvid Anderson Prize Fellowship, 2015-2016
Yale University Graduate Fellowship, 2013-2018
Cowles Foundation and Economic Growth Center Fellowship, 2013-2017
Institute for Advanced Studies and Austria Lotteries Award, 2012

Institute for Advanced Studies Fellowship, 2011-2013
Vienna University of Economics and Business Merit Award, 2008, 2009

Teaching Experience:

Yale University, Teaching Assistant:
Intermediate Macroeconomics (undergraduate, Prof. W. D. Nordhaus), Fall 2017
Financial Theory (undergraduate, Prof. J. Geanakoplos), Spring 2017
Macroeconomics (graduate, Prof. G. Moscarini), Spring 2016
Intermediate Macroeconomics (undergraduate, Prof. M. Peters), Fall 2015

Institute for Advanced Studies Vienna, Teaching Assistant:
Statistics (graduate, Prof. D. Uysal), Fall 2012

Research and Work Experience:

Research Assistant to Prof. Ilse Lindenlaub, Fall 2016
Research Assistant to Prof. Tony Smith, Fall 2015
Research Assistant to Prof. Michael Peters, Fall 2015

Publications:

"The Job Ladder and Its Implications for Earnings Risk" (2018), *Review of Economic Dynamics,* 29, 172-194.

*"*A Note on Consequentialism in a Dynamic Savage Framework: A Comment on Ghirardato (2002)" with Franz Ostrizek (2015), *Economic Theory Bulletin*, 3:2, 265-269.

*"*On the Strategic Equivalence of Linear Dynamic and Repeated Games" (2015), *International Game Theory Review*, 17:3.

Working Papers:

"The Race Between Preferences and Technology" (November 2018), *Job Market Paper*

*"*A Comprehensive Quantitative Theory of the U.S. Wealth Distribution" with Per Krusell and Tony Smith (2018)

Seminar and Conference Presentations:

Minneapolis Fed Junior Scholar Conference (2018), NBER Summer Institute (2017), SED Meeting (2016, Toulouse; 2015, Warsaw)

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American Economic Journal: Macroeconomics, Journal of International Economics

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Dissertation Abstract

Chapter 1: The Race Between Preferences and Technology *(Job Market Paper)*

As new technologies such as digitalization and artificial intelligence diffuse in the economy, fears about the future of labor opportunities abound. Indeed, labor shares have declined over the past few decades. In this paper, I demonstrate that a unified analysis of production and consumption is required to understand the behavior of the U.S. labor share since the 1950s. Over this time period, consumer demand has been shifting towards labor-intensive goods (and services). Until the early 1980s, this channel offset the negative effects of investment-specific technical change, which then subsequently dominated.

I first examine the question theoretically in a neoclassical general equilibrium framework, where I characterize the response of the aggregate labor share to different forms of economic growth. A substitution effect depends on the bias of growth towards capital, and on elasticities of substitution in production as well as in consumer demand. An income effect is proportional to the overall rate of economic growth multiplied by the cross-sectional covariance between sectoral labor shares and income elasticities. If this covariance is positive and the relevant aggregate substitution elasticity above one, then the aggregate labor share is stable if growth exhibits a moderate capital bias, while it declines if the capital bias is strong.

Motivated by the theoretical analysis, I estimate the key elasticities. First, using disaggregated Input-Output tables, I construct a panel dataset of labor shares at the final good level, reflecting all upstream value added. Linking this panel to the Consumer Expenditure Survey, I document that richer households spend more on labor-intensive goods as a fraction of total expenditure. Interpreted in a framework with stable preferences, this non-homotheticity implies that any form of economic growth benefits the aggregate labor share. To estimate the capital-labor elasticity of substitution in production, I augment the panel of final good labor shares with data on equipment (and software) intensities of capital. The identifying assumption is that the observed secular decline in the relative price of equipment goods was due to exogenous technological progress. Since the labor shares of equipment-intensive goods fell more rapidly, I estimate the capital-labor elasticity to be larger than one. Consequently, investment-specific technical change, manifesting itself in falling relative prices of investment goods, depresses the labor share. My evidence does not support a major independent role for markup growth or increased openness to international trade.

Armed with these estimates, I show that an otherwise parsimonious model with multiple sectors and non-homothetic demand quantitatively matches the observed low-frequency

movement in the aggregate labor share. Until about 1980, technical change was moderately investment-specific; thus, the aggregate labor share remained stable. While overall economic growth did not change much over the entire period, the investment-specificity of technical change increased subsequently, and ultimately led to a falling labor share.

Chapter 2: The Job Ladder and Its Implications for Earnings Risk (*Review of Economic Dynamics*, 2018, 29, 172-194.)

This article analyzes the ability of a job ladder framework to explain recent evidence on life-cycle earnings dynamics. Using administrative data, Guvenen et al. (2015) document several new facts about the distribution of earnings growth, most notably large negative skewness and high excess kurtosis, rejecting the frequently used log-normal framework. I show that these new facts can be well explained by a standard structural representation of a frictional labor market – a life-cycle version of the job ladder model – in combination with a simple human capital process. Furthermore, I identify endogenous search effort, risk aversion and wealth accumulation, and skill loss in unemployment as key model features that interact with the labor market friction to jointly reconcile the evidence.

Chapter 3: A Comprehensive Quantitative Theory of the U.S. Wealth Distribution *(with Per Krusell and Tony Smith)*

This paper employs a benchmark heterogeneous-agent macroeconomic model to examine a number of plausible drivers of the rise in wealth inequality in the U.S. over the last forty years. We find that the significant drop in tax progressivity starting in the late 1970s is the most important driver of the increase in wealth inequality since then. The sharp observed increases in earnings inequality and the falling labor share over the recent decades fall far short of accounting for the data. The model can also account for the dynamics of wealth inequality over the period—in particular the observed U-shape—and here the observed variations in asset returns are key. Returns on assets matter because portfolios of households differ systematically both across and within wealth groups, a feature in our model that also helps us to match, quantitatively, a key long-run feature of wealth and earnings distributions: the former is much more highly concentrated than the latter.