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Fields of Concentration:
Macroeconomics
Public Economics

Desired Teaching:
Macroeconomics
Public Economics
Labor Economics

Comprehensive Examinations Completed:
2011 (Oral): Macroeconomics (*with distinction*), Public Economics (*with distinction*)
2010 (Written): Microeconomics, Macroeconomics

Dissertation Title: *Essays in the Theory of Taxation*

Committee:
Professor Aleh Tsyvinski
Professor Mikhail Golosov
Professor Giuseppe Moscarini

Expected Completion Date: May 2015

Degrees:
Ph.D., Economics, Yale University, 2015 (expected)
M.Phil., Economics, Yale University, 2012
M.A., Economics, Paris School of Economics, 2009
M.ASt., Mathematics, University of Cambridge, 2007
M.S., Engineering, Ecole Centrale Paris, 2007

Fellowships, Honors and Awards:
Carl Arvid Anderson Fellowship, Cowles Foundation, 2012-2013
University Dissertation Fellowship, Yale University, 2013-2014
Cowles Foundation Fellowship, Yale University, 2009-2013
Yale University Doctoral Fellowship, 2009-Present

Teaching Experience:

Graduate Macroeconomics (instructors: E. Engel and A. Tsyvinski), Fall 2011
Intermediate Macroeconomics (instructor: G. Moscarini), Spring 2012
Debates in Macroeconomics (instructors: S. Roach and A. Tsyvinski), Fall 2012, Fall 2014
Intermediate Macroeconomics (instructor: B. Nordhaus), Spring 2014

Research and Work Experience:

Research Assistant to Professor A. Tsyvinski, Yale University, 2009-2014

Working Papers:

"Income Taxation with Frictional Labor Supply", *Job Market Paper*, October 2014
"A Variational Approach to the Analysis of Tax Systems", with M. Golosov and A. Tsyvinski, October 2014
"Dynamic Tax Reforms in Stochastic Environments", with M. Golosov and A. Tsyvinski, October 2014

Seminar and Conference Presentations:

NBER Public Economics Program Meeting, October 2014
Taxation Theory Conference, Cologne, June 2014
NBER Summer Institute, Macro Public Finance Workshop, July 2013
Society for Economic Dynamics annual meeting, June 2013

Referee Service:

Quarterly Journal of Economics

Languages:

French (native), English (fluent)

References:

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Dissertation Abstract

I study the design of income tax policy by analyzing its effects on individual behavior, government revenue, and social welfare.

Chapter 1: "Income Taxation with Frictional Labor Supply", *Job Market Paper*

This paper studies the effects of taxes on labor income and social welfare in an environment where labor supply choices are constrained by adjustment frictions. I analyze a dynamic model in which individuals choose their labor supply on the intensive margin as a function of their stochastic idiosyncratic productivity shocks and the non-linear tax schedule. Agents incur a fixed cost of adjusting their labor supply in response to productivity or tax changes, which can be thought of as the cost of searching for a new job. In the frictionless economy, I derive sufficient statistic formulas for the long-run effects of local tax reforms on social welfare. In the frictional model, the first main result is that, for a given labor income elasticity, the long-run effects of tax changes on social welfare differ significantly from those in the frictionless economy. The frictionless model ignores the heterogeneity in the utility of individuals who earn the same income level, and thus systematically underestimates the welfare costs of raising marginal tax rates. Moreover, this distribution is endogenous to taxes, leading to higher welfare gains from a budget-neutral increase in the progressivity of the tax schedule. The second main result is that the three-year elasticity of labor income to marginal tax rates typically estimated in the data may underestimate the long-run aggregate elasticity when frictions are present, more so when the proportion of exogenously received to endogenously chosen labor supply adjustments increases.

Chapter 2: "A Variational Approach to the Analysis of Tax Systems", joint with M. Golosov and A. Tsyvinski

We develop a general method to study the effects of non-linear taxation in dynamic settings using variational arguments. We first derive general theoretical formulas that characterize the welfare effects of local tax reforms and, in particular, the optimal tax system, potentially restricted within certain classes (e.g., age-independent, linear, separable). These formulas are expressed in terms of intuitive parameters, such as the labor and capital income elasticities and the hazard rates of the income distributions. Second, we apply these formulas to various specific settings. In particular, we decompose the gains arising from each element of tax reform, starting from a simple baseline system, as the available tax instruments become more sophisticated. We show that the design of tax systems obeys a common general principle, namely that more sophisticated tax instruments (e.g., age-dependent, non-linear, non-separable) allow the government to better fine-tune the tax rates by targeting higher distortions to the segments of the population whose size is relatively small or whose behavior responds relatively little to those taxes.

Chapter 3: "Dynamic Tax Reforms in Stochastic Environments", joint with M. Golosov and A. Tsyvinski

We generalize the results of our paper, "A Variational Approach to the Analysis of Tax Systems", to the stochastic model, where individuals face uncertainty about the future path of productivities and interest rates over their lifetime. We show that we can express qualitatively the welfare effects of tax reforms in terms of elasticities and the shape of the income distributions, in a way that mirrors the formulas of the deterministic model. We then describe analytically and numerically the optimal tax system, and propose directions of tax reform of the US tax code. We discuss the additional benefits of using sophisticated tax instruments.