# Amin Sokhanvar

Address: Faculty of Business & Economics- Eastern Mediterranean University- Famagusta, Cyprus

Email: amin.sokhanvar@emu.edu.tr

Phone: 00905338472069

2019-10-31

The National Bureau of Economic Research (NBER)

**RE: Digitization Tutorial 2020**

Dear Selection Committee,
I would like to express my interest in attending 'Tutorial on the Economics of Digitization' announced by NBER and the opportunity to be familiar with this area of research and hear presentations and interact with research leaders.
I am a PhD candidate in economics and a research assistant at Eastern Mediterranean University. I am a proven expert in academic research and developing research agenda on the topics of my interest, with a strong background in micro and macro-economics, and econometrics. In addition, I have exceptional data analysis skills and professional knowledge of theoretical, quantitative and qualitative methodologies.
The courses that I have passed during my PhD include Econometrics, Microeconomic Theory and Policy, Macroeconomic Theory and Policy, Advanced Microeconomic Theories, Time Series Econometrics, Investments, Research Seminar in Economics, Advanced Macroeconomic Theory, Mathematical Economics, Investment Appraisal, Economic Development and Environmental Issues.
My first field of specialization is public economics. My dissertation title is "The Political Economy of the Taxation of Individuals in TRNC". During writing my thesis, I have designed a micro-simulation model to diagnose the taxation and pension system and analyze the income inequality in north Cyprus via obtaining the Gini coefficient, Lorenz curve, and age earning profile of different groups of people. The results of this study are online as a working paper:
http://jdintl.econ.queensu.ca/discussion-papers/
https://ideas.repec.org/p/qed/dpaper/4410.html

This study shows how the taxation system of Turkish Republic of Northern Cyprus, and its interaction with the social security and provident fund systems, has created a powerful set of incentives for non-compliance and a massive tax avoidance. It was our incentive to offer a solution to these problems in the 2nd study. In order to move toward a more sustainable structure of government finances, the objective of the 2nd paper is to outline and estimate the revenue and incentive implications of tax reform to deal with current tax design defects. This paper proposes four tax reform scenarios that would result in a simpler, more equitable and revenue

productive while improving the incentives for enhanced compliance. In the tax reform measures developed and analyzed in this paper, it is found that it is possible to create a simpler, more equitable and revenue productive direct tax system while improving the incentives for enhanced taxpayer compliance. This paper has been submitted for publication.

One of my current research projects is concentrated on the impact of innovation on unemployment rate that can clarify who is right in battle between productivity pessimists and techno-optimists. According to Pascual Restrepo of Boston University and Daron Acemoglu of MIT, technological progress is divided into two categories: 1- the sort that creates new, more complex tasks for humans. 2- the sort that replaces labor with machines. I empirically investigate whether or not artificial intelligence and machine learning are likely to put hordes of workers out of work. I have two research papers under review in this field. The 1st paper examines the short-term and long-term effects of changes in R&D intensity on particularly the rate of unemployment in addition to economic growth for a sample of five European countries. Utilizing annual data for the sample period of 1991-2017 two alternative methodologies, namely the 'ARDL bounds testing' and 'PMG estimation' are employed. Our empirical results have shown that there exists a long-run relationship between R&D, unemployment rate and economic growth in four of the five countries investigated. Furthermore, the results of panel data analysis have suggested that even though in the long run a given increase in R&D is likely to lower the rate of unemployment (in the average country of the sample), in the short run it can have adverse effects on unemployment. The paper argues that these empirical results can be taken as an evidence for the idea that even though the dominant form of technological change is in the form of 'new task creation' instead of 'automation', in the short run new technologies may lead to an increase in the rate of unemployment due to the possible mismatch between the skills required by the newly created tasks (jobs) and the skills of the existing pool of workers. In the 2nd paper, we apply nonlinear ARDL based methodologies to examine the nature of the effects of changes in R&D (intensity) on the employment rates of 'high-skill', 'medium-skill' and 'low-skill' labor and also whether or not these effects are symmetric. Our empirical results indicate that while increased R&D has favorable effects on the employment rate of 'high-skill' labor in France it has a negative impact on this type of labor in UK. On the other hand, while the given increase in R&D has been negatively affecting the employment rates of both 'low-skill' and 'medium-skill' labor in France, it has no impact on the employment rates of these two types of labor in UK. These results may suggest that the dominant form of technological change in France is possibly a combination of 'low-skill automation' and 'task-based' whereby new technologies are simultaneously leading to replacement of 'low-skill' and 'medium-skill' labor by machines and creation of new tasks (jobs) in which 'high-skill' labor has a comparative advantage. In UK the dominant form of new technologies resulting from additional R&D efforts seems to be in the form of 'high-skill automation' whereby 'Robotics and Artificial Intelligence' kind of new technologies might be causing replacement of 'high-skill' labor with machines.

I have published five research papers in the journals indexed in SSCI in the last two years; a summary of my research is available in this link:
https://scholar.google.com/citations?user=ZlcFJScAAAAJ&hl=en

Currently, the most important goal of my academic life is to develop my scientific profile through high-quality international publications in my fields of interest; and attending this Digitization Tutorial and experiencing the exciting international research atmosphere at NBER is the best factor to support me to accomplish this goal.

Thank you for your time and consideration.

Sincerely,
Amin Sokhanvar