

My Research Statement

I completed my Ph. D degree in economics from Indiana University in 2009 with a specialization in macroeconomics. During my graduate studies at Indiana University, I was fortunate enough to take a wide variety of macroeconomic courses taught by leading macroeconomists, including my advisor, Eric M. Leeper (editor of *B. E. Journal of Macroeconomics*, *European Economic Review*). These courses included rigorous training in monetary economics, development macroeconomics, open economy macroeconomics and a two semester long course on growth theory and macroeconomic aspects of public economics. I was also fortunate enough to receive rigorous quantitative support by taking courses in micro econometrics, macro econometrics, time series and Bayesian econometrics.

My research motivation is divided into two broad areas of economic research; macroeconomics and applied econometrics. My research in macroeconomics deals with two core issues in modern macroeconomics; the role of heterogeneity and the role of institutions. I am interested in looking at the role of heterogeneity in the design of effective core fiscal, monetary or general public policies. My current research focuses on three areas of macroeconomic policy research; fiscal policy, monetary policy and macroeconomic aspects of public economics. My dissertation consisted of three chapters, each looking at hotly debated macroeconomic questions. My first chapter analyzes the role of preference heterogeneity and access to credit market in explaining the effect of government spending on aggregate consumption, output, labor supply and investment. My second chapter examines the role of income heterogeneity in designing effective tax policy, focusing on the macroeconomic and budgetary effect of alternative tax policies and their financing mechanisms. My third chapter investigates the effect of demographic uncertainty on the macro economy under alternative social security systems. In all of these projects, I have made a conscious effort to include both theoretical and quantitative methods to carry out my research.

My current research includes a mixture of core macro, monetary and public economics issues. I have just finished working on two grant-funded projects. First, I am writing on a paper to analyze the distribution of debt burden in a simple heterogeneous agent based model to understand the distributional aspects of debt. Second, I am trying to understand the factors that determine specific schooling decisions. This paper will combine existing theory about schooling decisions and relate it to empirical observations. I am also working on three applied macroeconomic research projects. The first two looks at the relationship between government spending, private consumption and investment for the GCC countries while the third project attempts to find empirical evidence of *inflation expectations* for the emerging economies.

Furthermore, I am working with a group of economists from my department and trying to build a research portfolio on energy economics. As part of a collaborative process, I am working on two research proposals that will try to estimate and forecast demand for natural gas and understand the macroeconomic effect of oil revenue on the GDP of Saudi Arabia. Finally, and clearly my most ambitious research endeavor to date, I am working as part of a research group jointly with ARAMCO to understand, estimate and forecast the demand for certain type of petroleum products (gasoline type 91, 95, diesel and air fuel) in Saudi Arabia by using sophisticated empirical techniques.

In summary, I believe that I have undertaken research projects that so far seem quite interesting because of their economic and policy implications. I have presented all the chapters of my dissertation and my other research projects in several seminars and conferences and have received valuable and enthusiastic feedback from the participants. Given some institutional support, I intend on continuing my research agenda in future.



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