

## My interest in economics and econometrics

My interest in numbers started with a favorite game of playing cards since my childhood: Calculating 24. I played the game quite well on account of my strong desire to study and quick response speed which also helped me enter the primary school when I was 6-year-old and finish its 6-year program in five years.

I chose to do research in econometrics because of its beauty: it explores structural economic relationship from actual data. It's the perfect combination of economics and statistics. After four years of undergraduate study in School of Economics and double major in statistics at Peking University, I was admitted to Guanghua School of management for my master's study in econometrics. Due to my intense curiosity and solid background, I received with pride scholarship accessible only to the best few each year and graduated with the honor "Excellent Graduate of Peking University".

To further pursue my academic interest in econometrics, in 2008 I accepted the offer of PhD study at the Ohio State University. Facing a new environment and competing with brilliant classmates selected from all over the world, pressure and confusion is inevitable. However, as Albert Einstein once said, the interest is the best teacher; I received professional training and gained outstanding academic records at the Ohio State University.

## My research background

During my first year at the Ohio State University, I acquired systematical knowledge in both Micro and Macro economics and passed the qualifier exam with flying scores. In the second year, I choose Econometrics and Labor economics as my two fields, further studying how to apply econometric methods to a specific economic phenomenon. In the Time Series class, my distinguished performance got Professor Robert de Jong's attention. We worked together on the paper "Sums of exponentials of random walks with drift" and it was published in the Journal "Econometric Theory" in August 2012.

Beginning from the third year, I am working on my research under Professor Lung-fei Lee as my advisor and focus my research on Spatial Econometrics. This is a new branch and receives considerable quantities of applications in various economics, such as regional science, urban economics, labor economics, and industrial organization, and also some other social science, such as agriculture and geography. As a top econometrician in this field, Professor Lee taught us his research experience without reservation. Our joint paper "LM tests for spatial correlation in spatial models with limited dependent variables" was published in "Regional Science and Urban Economics" in May 2012 and the following research "Locally most powerful tests for spatial interactions in the simultaneous SAR Tobit model" is forthcoming in the same journal. Now I am writing a new paper about estimating a spatial autoregressive model (SAR) with an endogenous spatial weight matrix. Strict exogeneity of the

## **Research Statement**

Name: Xi Qu Apply for academic job in Economics



spatial weight matrix plays a key role in conventional estimation methods of the SAR model. But it is likely to be violated in empirical studies. Making spatial weights endogenous is important but also a great challenge. I have full confidence to make some progress in this topic.

Besides my solid background in econometrics, I have been working as Professor John Kagel's Research Associate in Experimental Economics for more than a year. I gained valuable experience of independently running an economic experiment, analyzing experimental data, and using the software like z-tree, STATA, and Matlab. Such an experience will help me in the future to collect data for studies in interaction issues in economics and econometrics.

## My job plan

My objectives are academic jobs in economics, especially in China. I believe that helping others is the most enriching reward. When I pursue my degree and do my own research, I benefit a lot from my professors. This experience is the most precious asset in my life.

The past century witnessed the rapid development of both theoretical and applied econometrics that draws me with magic power. The fast economy growth in China provides me this great opportunity to achieve my vocational goal. When I finish my PhD study in May 2013, I hope I can return to China where I shall devote myself to a lifetime of teaching and researching in academics just as my teachers.