



# **The Hong Kong Polytechnic University**

## **Department of Applied Mathematics**

**Seminar  
On**

**Research on the contribution of human capital  
to economy development in China**

**by**

**Professor Jun-he Su  
Department of Statistics  
Shanghai University of Finance and Economics**

**Abstract** Based on the theory of western human capital and the situation of a country, we create a metrology model to make research on the contribution of human capital to economy development and the region difference in thirty-one provinces in our country. This model is compared with time serials and section model.

With demonstration research, we make the following research fruit and conclusion. Firstly, the economy development in our country is resource-driven in general. The gap between the contribution of resource and human capital to economy development is smaller from 1997 to 2005. Secondly, the difference of resource makes little contribution to the economy development in different region while the difference of human capital will lead to the difference in economy development. In western region, the input of human capital has little impact on economy development. The input of human capital has great impact on economy development in eastern region. Thirdly, we compare the impact of general human capital with high level human capital on economy development and make the conclusion that general level human capital can make more contribution to economy development. Finally, we give some advice based on demonstration research.

**Study of measuring the season change mode of main price indexes in China - Comparing  
between the methods based on X-12ARIMA and TRAMO/SEATS**

**by**

**Professor Ming-fang Zhang  
Department of Statistics  
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**Abstract** Up to now, official statistic organizations of many countries in the world have studied and published seasonally adjusted macro-economic indicators. They also measured the season change mode of these indicators. Among all the techniques and methods of seasonal adjustment, X-12ARIMA, developed by US Bureau of the Census in 1990s, and TRAMO/SEATS, developed by A.MARAVALL and V.GOMEZ, are widely used. However, no seasonally adjusted macro-economic indicators have been published by Chinese government statistics agency. Neither have these indicators been deeply measured. Are there any season changes in China's main price indexes? How to measure it? This paper studies these two questions. The paper uses X-12ARIMA and TRAMO/SEATS to measure the season change mode of China's main price indexes, including Residents Consumer Price Index, Retail Commodity Price Index, Purchasing Price Index of Raw Materials, Fuels and Power, Producer Price Index of Industry Products.

**Date : 31 October, 2008 (Friday)**  
**Time : 3:00 – 4:00 p.m.**  
**Venue : Departmental Conference Room HJ610  
The Hong Kong Polytechnic University**

**\*\*\* ALL ARE WELCOME \*\*\***