

Impacts of R&D Expenditure on Economic Growth and Structure Based on Beijing Dynamic CGE Model

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R & D (Research and development) Expenditure is not only a reflection of regional scientific and technological strength, but also important to technical progress and technology innovation. Therefore, R&D will affect the entire economy through technology innovation. Beijing as the scientific and technological centre in China, The scientific advance and technological innovation from R&D will decide the future development. Beijing R&D expenditure in 2012 is 103.11 billion Yuan. The ration of R&D expenditure to regional GDP(R&D investment intensity) is about 5.79%. How to evaluate the effect of Beijing R&D expenditure on economic growth and structure is an important issue? In the literature, It is usually assumed that R&D investment would increase TFP(total factor productivity) and then promote the economic growth. However, in this paper, we will divide the capital into tangible capital and R&D capital, which is accumulated through R&D spending. Moreover, the labor will divide into R&D labor and Non-R&D labor. Then we construct the related SAM(Social account Matrix). Lastly, this paper will use dynamic CGE(Computable General Equilibrium) model to evaluate the impact of R&D expenditure on Beijing's economic growth and structure, and can provide a reference for Science and Technology Policy.