This study develops a multi-region computable general equilibrium model (CGE model) with considering limited factor movement on the regional economy of Yangtze River Delta (YRD) in China. In broadly, YRD is composed of Shanghai City, Jiangsu province, and Zhejiang province. It has been achieved remarkable economic growth in the recent three decades. It was identified as a national-level regional economic circle in the “People’s Republic of China national economic and social development 11th Five-Year Plan.” This not only reflects the region’s economic strength and its tremendous achievements in economic development in the past, but also highlights that it is integral to China’s future economic development.

However, these regions will not go well with economic growth in the future. One of the big problems is an income inequality between rural and urban. The liquidity of people is thought as this problem solving method. Therefore, this study analyzes this liquidity by using CGE model. Input-output tables in these three regions are used to developing the model and the factor market connects these three regions. Moreover, it paid attention to the mobility of the productive factor like labor and the capital, etc. in the model. Concretely, we will assume four types of labor mobility: it can move between regions, it can move between industrial sectors, it can move between regions and sectors, and it cannot move any place. This study models four types of labor mobility at the same time. Under these assumptions, the economic effect of each region which is Shanghai City, Jiangsu province and Zhejiang province of the model is analyzed.