

Labor Market Effects of Demographic Transition: a CGE analysis for the Brazilian Economy

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Population ageing is accelerating in Brazil as consequence of the rapid decline in fertility and mortality population rates over the last decades. According to projections by IBGE, the working age population will start to decline from 2034 and the share of elderly people into population will increase from 6.8% in 2010 to 26.8% in 2060. This paper aims to investigate the extent to which the Brazilian economic structure and growth could be affected by demographic transition considering the transmission effects through labor market. We develop a CGE model where labor is disaggregated by skill and age to simulate the impact of demographic transition on Brazilian economy. The database was calibrated for 2010 and the economic flows are fully disaggregated for 65 sectors. The demographic projections produced by IBGE for the period 2010-2060 are used to estimate structural changes in the composition of labor force in each economic sector and the CGE model is used to evaluate the economic impact of these demographic shocks. The simulations allow to identify which sectors would be more sensitive to demographic transition as well to explore the role of substitution effects on the results.