

## ESSAYS IN MACRO-LABOUR ECONOMICS

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### ABSTRACT

This dissertation consists of three independent chapters. In the first chapter, a life cycle model of human capital accumulation through learning-by-doing is constructed with heterogeneity in productivity and age. The model is used to evaluate the impacts of social security reforms on the welfare of individuals, as well as the distribution of labour supply, consumption, and physical capital accumulation over the life cycle in the long run. In the reference economy, retirement is mandatory with a Pay-As-You-Go (PAYG) social security system. The following policy reforms are considered: (i) terminating the social security system with mandatory retirement, (ii) terminating the social security system with voluntary retirement, and (iii) introducing voluntary retirement with the social security. The results from the policy experiments show that even low earners prefer an economy without a social security system. Furthermore, the impacts of introducing voluntary retirement on individuals' decisions vary by age and productivity. The retirement decision is also affected by the presence of the social security system, and the amount of income redistribution within the system. In particular, low-skilled individuals (non-college graduates) decide to retire earlier while high-skilled individuals (college graduates) remain longer in the workforce. Taxation was shown to exacerbate these effects. However, these results do not hold if human capital is assumed to be exogenous.

In the second chapter, the impacts of investment-specific and neutral technology shocks on individuals' decisions are studied in a life cycle model, populated by heterogeneous individuals with respect to age. The results show that first the aggregate fluctuations are different in a life cycle model with an investment-specific technology shock compared to the standard infinitely lived agent models and in a model with only neutral technology shocks. Specifically, the role of investment-specific technology shocks as a driving source of fluctuations is weak. The results also show that the impacts of technology shocks on labour supply,

consumption, and physical capital depend on an individual's age and the nature of shocks. Individuals' optimal decision is to increase their current consumption due to a positive neutral technology shock. Therefore, old individuals work more while young individuals borrow more physical capital. However, more accumulation of physical capital is optimal for all except the young individuals when a positive investment-specific technology shock is introduced in to the economy. This leads to a reduction in consumption of all individuals, and a sharp increase in the labour supply of old workers.

The third chapter studies the labour market outcomes of second generation immigrants compared to other natives (third generation) in Canada, with an emphasis on cognitive skills and education. By using survey data from the 2003 International Adult Literacy and Skills Survey, this paper shows that children of immigrants are more likely to obtain a university degree. Moreover, they obtain higher test scores in cognitive skills and thus higher earnings compared to children of non-immigrants in Canada. Educational attainment and literacy skills are found to be important sources of success in the labour market for second generation immigrants. The positive association between parental education and human capital of children illustrates how the Canadian society benefits from the immigration point system in which immigrants with higher level of human capital are selected through an intergenerational effect.