

# ESSAYS ON INCOME, INEQUALITY, AND SOCIAL INSURANCE

## IN DEVELOPING COUNTRIES

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### Summary of Dissertation

Informal employment is the main source of employment in many developing countries, where more than 60% of workers work in this informal sector. These workers are mainly self-employed or working for small or family businesses who are not protected by social protection and regulation of the state. Their economic activities are generally not monitored, and the state cannot tax their associated revenues or incomes. This feature largely deviates from developed economies and is typically not considered in economic analyses.

This dissertation investigates three main issues in economic research by focusing on developing countries with a large informal sector: earnings profiles and uncertainties, inequality, and consumption and savings behaviors with policy implications. For our analysis, we select Thailand as a representative country because approximately 55% of workers are in the informal sector. Moreover, the country has developed social insurance, including social welfare programs, social security pension, and universal health insurance

We first investigate the age-earnings profiles and uncertainties over the life cycle between the formal and informal sectors. We examine the sources of earnings growth by considering different sectors of employment. Our results show that sector effect is statistically significant. We further investigate the difference of earnings shocks between the two sectors. We model the earnings shock process allowing for fixed effect, persistent shocks, and transitory shocks. Our findings show that earnings shocks in the informal sector are greater than in the formal sector; however, the shocks are more persistent in the formal

sector. We also allow earnings shocks to vary between age groups in each sector. We find that earnings shocks increase with age in both sectors. Our results also show that persistence declines with age in the formal sector while slightly increases with age in the informal sector.

Then, we examine the impact of earnings uncertainties from different sectors on earnings and consumption inequality over the life cycle. We develop a life cycle model with uninsurable earnings shocks from different sectors of employment. The model is calibrated to match Thai data. We find that key factors accounting for earnings and consumption inequality are the idiosyncratic earnings shocks in different sectors, working during old age, and social security. We also conduct policy experiments to investigate the impact of social insurance policy on inequality and individuals' consumption and saving behaviors by proposing two policy reforms: the extension of social welfare and extension of the social security system. Our results indicate that a high level of social welfare cannot reduce consumption inequality except very young workers and very old persons. However, the extension of social security to cover informal workers can reduce consumption inequality for middle-aged workers and retired persons.

Finally, we study the relationship between employment-based / private health insurance (EPHI) coverage and private saving in Thailand. Without controlling for endogeneity and using the standard Tobit model, our results show that the EPHI insured households tend to have positive savings, which is in line with the literature. After controlling for endogeneity by using the Instrumental Variables (IV) and the Full Model Maximum Likelihood (FMML) approaches, we find that households with EPHI coverage have significantly lower savings than those without coverage. Our finding provides evidence for the crowding-out effect of health insurance coverage on saving and supports precautionary saving theory.