

## DOCTORAL THESIS

### Three essays on general macroeconomics

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# Abstract

The thesis is made up of three chapters that work on three distinct topics in macroeconomics. The first chapter is a theoretical work on monetary policy, in which a coherent and intuitive large-scale Dynamic Stochastic General Equilibrium (DSGE) model matching with particulars of the Chinese economy is established to understand how and why Reserve Requirement Ratio (RRR) works within Chinese monetary policy regime. The second chapter reveals the relationship between phenomenon of inequality and secular stagnation with a three-period Overlapping Generations (OLG) model built within a heterogeneous agent framework. It also points out workable ways of conducting macroprudential policy given the aforesaid two phenomena. The third chapter both theoretically and empirically examines effectiveness of the currency board system in Hong Kong using an advanced macroeconomic modeling toolbox as well as a workhorse model used by a mass of central banks that is further modified to be in line with reality of the Hong Kong economy.

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