

**Essays on the Australian Economy -
A Neoclassical Perspective**

by

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Abstract

This thesis brings together three research papers or chapters. The key similarity among the chapters is that they are all based on neoclassical economics. Each chapter explains important episodes of the Australian economy. Starting from identifying government expenditure shocks from 1980 onwards, I explain the productivity miracle in Australia in the 1990s and the causes of the Great Depression in Australia in the 1920s and 1930s.

In Chapter 2, I identify government expenditure shocks for the Australian economy from 1980 onwards using VAR. In this identification, the timing of the announcement of government expenditure is taken into account rather than actual stream of government expenditure. The motivation of this is that, rational agents should start to react from the timing of the announcement of the change in government spending. This follows directly from observing the lifetime budget constraint of the agent. This research is closely related to Ramey (2011). My results show that government expenditure shocks based on newspaper sources has a significantly negative impact on GDP, hours worked, investment and the durable consumption variable, i.e. the impact of government expenditure shocks has been contractionary for Australia in recent times (1984-2009). I also run a VAR using the news variable of Ramey (2011) based on newspaper sources on the US and again, obtain a contractionary impact on the economy.

Chapter 3 focuses on the high productivity growth of Australia in the 1990s. From 1993 onwards Australia experienced an above average growth rate of the output per working-age person. During 1993-2004, the average annual growth rate of output per working-age person in the Australian economy was higher than the United States' (2.63 percent versus 1.98 percent). In various studies including the reports/publications of the Productivity Commission of Australia, it is suggested that high productivity growth

underpinned the high growth of output for nearly a decade. The average yearly growth rate of total factor productivity (TFP) was 2.95 percent during 1993-2004 compared to the slowdown period of 1988-92 (0.05 percent). I undertake the analysis with several versions of the neoclassical model. The basic model with only TFP shocks shows the importance of productivity in economic growth. The model predicts a boom in the economy as also reflected in the data. The correlation of the output per working-age person between the model and data is very high (0.99). However, the model predicts a noticeably larger growth of the output per working-age person, compared to the data (average growth 3.09 versus 2.63 percent). I extend the analysis including tax and government expenditure shocks in the model. The inclusion of extra shocks increases the model's ability to track the output per working-age person.

Chapter 4 focuses on the role of productivity during the Great Depression in Australia. In 1925 Australia's output per working-age person started to drop. The peak-to-trough (1925 to 1932) decline of detrended output per working-age person was around 35 percent. My analysis suggests that declining productivity was the major cause of the Depression. The basic model can account for 96 percent of the drop of output per working-age person. The research is carried out also within an open economy environment where the model can account for 88 percent of the drop. This result differs from the recent research by Payne and Uren (2011).

Statement of Originality

I, Mohammad Altaf-Ul-Alam, certify that this work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text.

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Abbreviations

Australian Bureau of Statistics (ABS)

Australian System of National Accounts (ASNA)

Bureau of Economic Analysis (BEA)

Dynamic Stochastic General Equilibrium (DSGE)

First Order Conditions (FOCs)

Gross Domestic Product (GDP)

Gross National Expenditure (GNE)

Hodrick and Prescott (HP)

Information and Communication Technology (ICT)

Organisation of Economic Cooperation and Development (OECD)

Present Discounted Value (PDV)

Reserve Bank of Australia (RBA)

Structural Vector Autoregression (SVAR)

Total Factor Productivity (TFP)

Vector Autoregression (VAR)