UNIVERSITI PUTRA MALAYSIA

Exchange Rate Shocks and The Effectiveness of Macroeconomic Policies in Malaysia

ALIASUDDIN

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Exchange Rate Shocks and the Effectiveness of Macroeconomic Policies in Malaysia

ALIASUDDIN

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia in Fulfilment of the Requirement for the Degree of Doctor of Philosophy

July 2009
Dedication

To my beloved late wife and late son
(They were missing in the tsunami that attacked Aceh on December 26, 2004)

To my lovely wife and daughter

To my beloved mother, late father, bothers and sisters
Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the Degree of Doctor of Philosophy

Exchange Rate Shocks and the Effectiveness of Macroeconomic Policies in Malaysia

By

ALIASUDDIN

July 2009

Chairman : Professor Ahmad Zubaidi Baharumshah, PhD
Faculty : Economics and Management

The 1997–1998 financial crises had significantly affected the East Asian countries including Malaysia. The economic growth during the crises was very low and several quarters experienced negative growth compared to the pre-crisis period. The slower economic growth caused lower income and higher unemployment because producers tried to decrease their productions due to the lower demand during the crises. The government tried to stabilize the economy by implementing some policies such as higher interest rate as a monetary policy instrument. However, the policies were not so effective to stabilize the crises because the economy recovered only after two years.

Using quarterly data for the period 1980.1–2002.4, a structural vector autoregressive (SVAR) model is utilized in the study. There are eleven variables are used in the study, where five of them are exogenous variables, whereas others are endogenous ones. So, the structural equations in the study are saving deposit rate and hereafter denoted as saving interest rate, lending interest rate, government expenditure, foreign income, exchange rate, money demand, consumption, investment, exports, imports, and income. The SVAR is used because it can examine the exchange rate effects on the
macroeconomic variables as well as the role of monetary and fiscal policies on the exchange rate. The SVAR also produces two important tools, forecast error variance decomposition and impulse response function. Impulse response function is used to analyze the effects of exchange rate shocks on the macroeconomic variables and the effectiveness of macroeconomic policies, whereas forecast error variance decomposition is used to analyze the sources of fluctuations of macroeconomic variables.

The fluctuations of exchange rate are mainly influenced by own shocks and foreign income. Foreign income has important role because most of the exported goods are sold in the international market. There are two variables that influence the money demand, exchange rate and saving interest rate. This means that exchange rate has important role on the money demand. People consider the exchange rate in their money demand besides saving interest rate.

The fluctuations of investment are dominantly determined by exchange rate shocks and saving interest rate shocks. Again, the exchange rate is so important in the investment decision, although interest rate is an important factor. There are two shocks that determine the fluctuations of imports, exchange rate and saving interest rate. Saving interest rate has power to influence the imports because most of Malaysians use credit to buy goods and services. So, interest rate is very crucial in the demand for imported goods and services. The fluctuations of income are dominantly influenced by foreign income. This means that any fluctuation in the economic is caused by outside factor. Exchange rate fluctuation can be minimized by implementing monetary and fiscal
policies. However, the monetary and fiscal policies are not effective to stabilize the exchange rate fluctuations because the fluctuations come from outside of the economy.
Abstrak tesis yang dikemukakan kepada Senate Universiti Putra Malaysia untuk memenuhi keperluan Ijazah Doktor Falsafah


Oleh

ALIASUDDIN

July 2009

Pengurusi : Professor Ahmad Zubaidi Baharumshah, Ph.D.
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Turun naik–turun naik pelaburan terutamanya ditentukan oleh kejutan–kejutan tukaran wang asing dan kadar faedah simpanan. Sekali lagi, tukaran wang asing adalah penting dalam keputusan pelaburan, meskipun faktor kadar faedah juga penting. Ada dua kejutan–kejutan yang menentukan turun naik–turun naik import, tukaran wang asing dan
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I certify that a Thesis Examination Committee has met on 16 July 2009 to conduct the final examination of Aliasuddin on his thesis entitled “Exchange Rate Shocks and the Effectiveness of Macroeconomic Policies in Malaysia” in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The committee recommends that the student be awarded the Doctor of Philosophy.

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I hereby declare that this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.

ALIASUDDIN

Date: July 16, 2009
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LIST OF ABBREVIATIONS

AD  Aggregate Demand
ADT  Augmented Dickey Fuller
AIC  Akaike Information Criteria
BNM  Bank Negara Malaysia
C  Consumption
CPI  Consumer Price Index
ER  Exchange Rate
FC  Foreign Currency
FDI  Foreign Direct Investment
FEVD  Forecast Error Variance Decomposition
FFR  Federal Fund Rate
G–7  Group 7
GARCH  Generalized Autoregressive Conditional Heteroscedasticity
GDP  Gross Domestic Product
GE  Government Expenditure
GIR  Generalized Impulse Response
I  Investment
i.i.d.  identically independently distributed
IP  Industrial Production
IPI  Industrial Production Index
IRF  Impulse Response Function
IS  Equilibrium in Goods Market
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<td>MSC</td>
<td>Multimedia Super Corridor</td>
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CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Efforts have been made by the government of Malaysia to implement sustainable and consistent development policies in order to achieve the highest economic performances. The significant policies have been started since the late 1970s. The policies include low interest rate, flexible exchange rate, deregulations of international capital flows, enhancing competition and efficiency in the banking system, and modernizing the open market operation and capital markets. The policy was directed to liberalizing the domestic interest rate with the aim of mobilizing efficiently the domestic sources of funds. Meanwhile, lifting controls on credit allows the banking sector to be more responsive to the market forces. Lifting restrictions on international capital flows allows foreign investor to participate more efficiently in domestic industrial activities.

The policies continued through the 1980s by modernizing the financial system such as transforming the banking system and the credit market, and the capital and money markets. The policies were aimed at increasing the competition in the financial system and at the same time provided a flexible means for managing liquidity through open market operation. The government continues with efforts to strengthen the financial system with a view to creating a more competitive and resilient financial sector.