UNIVERSITI PUTRA MALAYSIA

EFFECTS OF GOVERNMENT EXPENDITURE, FISCAL POLICY AND INSTITUTIONS ON THE ECONOMIC GROWTH OF ASIAN ECONOMIES

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EFFECTS OF GOVERNMENT EXPENDITURE, FISCAL POLICY AND INSTITUTIONS ON THE ECONOMIC GROWTH OF ASIAN ECONOMIES

By

HUSSIN ABDULLAH

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

April 2008

DEDICATION

This work is dedicated,

To the memories of my late mother Hajah Sanah Mohd Yusof for her love, wisdom and sacrifices,

To my beloved wife Normala Mehat and loving daughter Nur Syasya Alya and sons; Muhammad Hilmi, Muhammad Haikal, Nasrun Akmal and Nasrun Haziq. **"Thanks for your loving care and endless encouragement"**

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Chairman: **Professor Muzafar Shah Habibullah, PhD**

Faculty: **Economics and Management**

This study determines the long run relationship between government expenditure, fiscal policy and economic growth, the role of institutions on economic growth, and whether institutions require complimentary factors to influence economic growth through an interaction term effects between government expenditure and institutions, and fiscal policy and institutions on economic growth of thirteen Asian economies. It is particularly important because economic growth has declined and become stagnant significantly and government expenditure does not inhibit the full exploitation of the growth potential of Asian economies. There is also a broad consensus that the developments in fiscal policies contribute to the relatively weak growth performance. Weak fiscal positions have left little room for further fiscal expansion in most Asian economies when faced by economic slowdown. Generally efficiency of the role of institutions is sadly lacking, and there are numerous deficiencies in the functioning of

role of institutions in Asian countries. We formulated a simple growth model which is based on the augmented version of the Solow model in a sample of thirteen Asian countries as case studies using recently developed panel cointegration methods; FMOLS introduced by Pedroni (1996, 2000 and 2001) and GMM estimators developed for dynamic models of panel data, introduced by Arellano and Bond (1991) and Blundell and Bond (1998). The findings indicate that there is a positive and negative coefficient and significant long run relationship between government expenditure, fiscal policy and economic growth. The results of institutions and interaction term indicate that there is a role of institutions and the institutions require complimentary factors to influence economic growth through an interaction term effects. The findings also indicate that initial real per capita GDP, saving in physical capital (investment) and population growth rate are in line with Solow model which is the negative coefficient on initial GDP as in most published growth regressions is interpreted as conditional convergence while investment and population growth are positive and negative, respectively. Several important conclusions can be drawn from the study. Government policies and institutions seem to play an important role and attract investment are correlated with higher growth. It is also possible to account for plausible interactions drawing upon research from various disciplines in social sciences. It can be hoped that models built using an interdisciplinary approach can better account for observed variation in the data.

LIST OF ABBREVIATIONS

ADB	Asian Development Bank
ADF	Augmented Dickey-fuller
AIC	Akaike Information Criterion
BERI	Business Environment Risk Intelligence
FDI	Foreign Direct Investment
FMOLS	Fully Modified Ordinary Least Square
GCC	Cooperation Council Countries
GDP	Gross Domestic Production
GNP	Gross National Production
GMM	Generalized Method of Moment
ICRG	International Country Risk Guide
IMF	International Monetary Funds
IPS	Im, Pesaran and Shin
LDCs	Less Developed Countries
LLC	Levin, Lin and Chu
MW	Maddala and Wu
OECD	Organization for Economic Co-operation and Development
OLS	Ordinary Least Square
PVBC	Present-Value Borrowing Constraint
SAARC	South Asian regional Cooperation Council
SOEs	State Owned Enterprises
System GMM	System Generalized Method of Moments
VAR	Vector Autoregression
WDI	World Development Indicator
PKC	China
HKG	Hong Kong
KOR	Korea
JPN	Japan
INDO	Indonesia
MAL	Malaysia
PHIL	Philippines
R&D	Research and Development
SIN	Singapore
THAI	Thailand
BAN	Bangladesh
IND	India
PAK	Pakistan
SRI	Sri Lanka

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

KESAN PERBELANJAAN KERAJAAN, DASAR FISKAL DAN INSTITUSI KE ATAS PERTUMBUHAN EKONOMI BAGI EKONOMI ASIAN

Oleh

HUSSIN ABDULLAH

April 2008

Pengerusi: Professor Muzafar Shah Habibullah, PhD

Fakulti : Ekonomi dan Pengurusan

Kajian ini menentukan hubungan jangka panjang di antara perbelanjaan kerajaan dan dasar fiskal dengan pertumbuhan ekonomi, menentukan peranan institusi ke atas pertumbuhan ekonomi, dan menentukan sama ada institusi memerlukan faktor sampingan untuk mempengaruhi pertumbuhan ekonomi melalui kesan terma kerjasama di antara institusi dan perbelanjaan kerajaan, serta institusi dan dasar fiskal ke atas pertumbuhan ekonomi di tiga belas negara-negara Asia. Kajian ini penting terumatanya kerana didapati pertumbuhan ekonomi telah menurun dan menjadi signifikan lembab dan perbelanjaan kerajaan tidak berada di dalam penerokaan yang sepenuhnya dalam potensi pertumbuhan di dalam ekonomi Asia. Terdapat juga pendapat yang menyatakan pembangunan dalam dasar-dasar fiskal menyumbang kepada kelemahan prestasi pertumbuhan ekonomi. Umumnya terdapat kekurangan kecekapan peranan institusi dan

juga kekurangan dalam fungsi peranan institusi di negara-negara Asia. Kami membentuk satu model pertumbuhan yang mudah berdasarkan kepada versi pertambahan model Solow menggunakan kaedah kointegrasi panel yang telah dibangunkan; FMOLS oleh Pedroni (1999 dan 2001) dan penganggaran GMM yang dibangunkan untuk model panel dinamik oleh Arellano dan Bond (1991) dan Blundell dan Bond (1998). Hasil rumusan menunjukkan koefisyen yang bercampur iaitu positif dan negatif dan terdapat hubungan jangka panjang di antara perbelanjaan kerajaan, dasar fiskal dan pertumbuhan ekonomi. Hasil rumusan institusi dan terma kerjasama pula menunjukkan adanya peranan institusi dan institusi juga memerlukan faktor sampingan untuk mempengaruhi pertumbuhan ekonomi melalui kesan terma kerjasama. Rumusan juga menunjukkan permulaan KDNK per kapita benar, simpanan dalam modal fizikal (pelaburan) dan kadar pertumbuhan populasi selaras dengan model Solow di mana koefisien negatif permulaan KDNK per kapita benar yang lebih dikenali dalam regresi pertumbuhan yang ditafsir sebagai penyatuan bersyarat sementara pelaburan adalah positif dan pertumbuhan populasi adalah negative. Beberapa penemuan penting daripada kajian in dapat disimpulkan seperti institusi dan dasar-dasar kerajaan kelihatan memainkan peranan penting, meminimumkan keutamaan keuntungan dan penarik pelaburan yang berkait rapat dengan pertumbuhan yang tinggi. Ini juga mungkin diambil kira untuk kerjasama yang munasabah melalui kajian daripada pelbagai disiplin dalam sains sosial. Pembentukan model menggunakan kaedah antara disiplin amat sesuai diambil kira bagi pelbagai maklumat yang terkumpul dalam data boleh diharapkan.

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Fist and foremost, I would like to take this opportunity to convey my highest appreciation to my supervisor Prof. Dr. Muzafar Shah Habibullah for his time, patience, valuable suggestions and tremendous support throughout the period of the study. His consistent guidance and advice had allowed me to successfully complete this thesis. I would also like to thank Professor Dr. Ahmad Zubaidi Baharumshah and Associate Professor Dr. Tan Hui Boon as members of my supervisory committee for their suggestions, views and comments at various stages of the study.

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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of requirements for the degree of Doctor of Philosophy. The members of the Supervisory Committee are as follows:

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DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.

_____

HUSSIN ABDULLAH

Date: 13th May 2008

I certify that an Examination Committee has met on **14th April 2008** to conduct the final Examination of Hussin Abdullah on his Doctar of Philosophy thesis entitled "Fiscal Policy, Institutions and Economic Growth in Asian Economies" in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

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CHAPTER 1

OVERVIEW OF THE STUDY

1.1 Introduction

Economic growth serves as the prominent standard for measuring the performance of an economy. It is the most important factor in the success of nations, and should be the central objective of every developed or developing country's governmental policy. Countries succeeding in the race to prosperity serve as models for other developed or developing nations seeking to emulate them and increase their affluence.

Economic growth implies increases in per-capita real gross domestic product (GDP), namely widening of the production scale in a country as a whole, or more efficient use of its economic resources to produce goods and services. Although development per se encompasses a wide range of phenomena ranging from indicators of "quality of life" to "human development," the increase in per-capita GDP is a major component of economic and social development. Since the scale of production or productivity can only be increased in the long run, secular economic growth is considered a long run phenomenon (Kibritcioglu and Dibooglu, 2001).

Classical economists such as Smith, Ricardo, Marx, and Malthus were concerned with the growth of the economy. These classical economists focused on the savings-

investment nexus, as the main factors influencing the growth process. Effects on savings and capital formation in particular had to be considered, if fiscal operations deter growth. To avoid distorting effects on the overall level of capital formation, public investment is to be loan-financed, diverting savings from private into public capital outlays. The burden of public consumption in turn is to be borne in the current period and to be paid for by taxation. The Solow growth model is a model of growth that shows how savings, depreciation and population growth determine steady-state economic growth.

When Keynesian economics took over in the 1930s, the macro model shifted from a presumption of market clearance to the one of market jamming. Unemployment became the dominant policy concern, and the Keynesian view of market failure – the system's inability to balance savings and investment at full employment, along with the importance of monetary policy to overcome an infinitely elastic liquidity preference – assigned fiscal policy a unique position in overcoming these ills (Mario *et al*., 1997).

Before World War I, economists worked in a tradition that was mainly for peace, free trade, and self-adjusting mechanisms of a market economy and for limited government. The Great Depression of the 1930s generated dissatisfaction among certain economists over the classic laissez-faire model in explaining the high and persistent unemployment. The Great Depression brought considerable harm to the world economy, as beggar-thy-neighbor policies and protectionism spread, and resulted in negative growth in many countries during early to mid-1930s. As mentioned earlier, much of the skepticism toward laissez-faire gained momentum during the Great Depression, when

unemployment and poverty reached levels that had not been thought possible before (Tanzi and Schuknecht, 2000).

With the experience of the industrialized warfare machinery and the expansion of the welfare state, economists found their new expanding field of activity in government, and consequently the dominant philosophy of the discipline changed from laissez faire to interventionism. Keynes' 1936 General Theory stated that government intervention smooth out fluctuations in the business cycle and this has been reflected by the successful government control of economies in World War II. The Keynesian school of thought suggests that government expenditure accelerates economic growth. Thus, government expenditure is regarded as an exogenous force that changes aggregate output. Economic growth accelerated again after World War II when governments and newly created international institutions provided a more stable and market-friendly economic climate during the postwar reconstruction.

Some economists assign a critical role to the government in the process of economic development. A larger government size is likely to promote economic growth since the government has an important role in reconciling conflicts between private and social interests, and it can secure an increase in productive investment and provide a socially optimal path for economic growth (Ghali, 1998). Once the relationship between the size of government and economic growth is tested and understood, it can be used in an appropriate manner to increase the growth rate of an economy.

Governments in recent decades have been relying more and more on the forces of the marketplace and reducing their intervention in market outcomes. The government's role should be more of a protector of the disadvantaged and a regulator of private sector activity – not as a direct producer of goods and services other than defense and domestic law and order. Currently, many governments still play an excessive role in their economies. But a lesser role would improve economic efficiency and living standards, and would also improve society by eliminating the government's assistance to particular groups that do not create employment for the lower skilled.

1.2 The Issues

This section will focus on the issues of government expenditure, fiscal policy, institutions and interaction term with economic growth.

1.2.1 Growth and Government Expenditure

In traditional Keynesian macroeconomics, many kinds of government expenditure can contribute positively to economic growth. High levels of government consumption are likely to increase employment, profitability, and investment via multiplier effects on aggregate demand. Thus, government expenditure raises aggregate demand, leading to increase output depending on the size and effectiveness of expenditure multipliers. Günalp and Gür (2002) stated that the size of government is one of the most frequently employed variables, since it can be directly influenced by government policies. If the size of government can affect the growth rate of output, then, it can be an important factor in explaining the observed differences in long run growth rates among countries.

Table 1.1 applies to 16 developed countries, the major countries in Europe plus the United States, Canada, and Australia. These data show an average per capita growth rate of GDP of 2.2 percent per year and an average government expenditure of 32.5 percent of GDP over roughly a century, with a breakdown by a 10-year period as shown in the table. The reduction in the growth rate of GDP from 2.8 percent per year in 1970-1979 to 1.7 percent per year in 1990-1999 corresponds to the often-discussed productivity slowdown. On the expenditure side, government expenditure increases from 28.1 percent of GDP in 1970-1979 to 35.7 percent of GDP in 1990-1999. Generally, the developed countries tend to have larger governments.

Table 1.1: Growth Rates of Real GDP and Government Expenditure (% of GDP) for Developed Countries

Period	Growth Rate of GDP (percent per year)	Government Expenditure (as a percentage of GDP)	Number of Countries
1970-1979	2.8	28.1	16
1980-1989	2.1	33.7	16
1990-1999	1.7	35.7	16

Source: World Development Indicator (World Bank, 2004)

Table 1.2 contains figures for 16 developing countries in Asia and Latin America. The average growth rate from 1970-1999 is 5.1 percent per year, and for government expenditure is about 16.9 percent of GDP. The breakdown into three sub-periods is as shown in the Table. The size of governments in developing economies is significantly smaller in terms of general government[1] activities.

[1] General government is the consolidated account of the central government, provincial and local governments, plus other government entities including social security fund (Kohsaka, 2004).

Table 1.2: Growth Rates of Real GDP and Government Expenditure (% of GDP) for Developing Countries

Period	Growth Rate of GDP (percent per year)	Government Expenditure (as a percent of GDP)	Number of Countries
1970-1979	5.9	14.9	16
1980-1989	4.7	18.3	16
1990-1999	4.8	17.3	16

Source: World Development Indicator (World Bank, 2004)

If we look at Table 1.1 and Table 1.2, we see a very different picture of growth and government expenditure. Growth in developing countries was, on average, more than 2.9 percent a year in 1970–1999 as compared to developed countries. On the government expenditure side, developed countries have more than 15.6 percent of GDP compared to developing countries. Another interesting point is that any increases in government expenditure would result in slower economic growth in the economy as a whole. Recently, in reviewing the experience of developing economies, the government expenditure is smaller in terms of volume of percentage but the growth rate of GDP tends to have larger shares of percentage. By contrast, developed countries have larger government expenditure and smaller growth rate of GDP. Generally, we can conclude that the effect of government expenditure on economic growth is negative for developing economies. Between 1970 and 1999, the government expenditure in developed economies grew much faster than that of the developing economies. That means developed economies, on average, spend 32.5 percent of GDP higher than developing economies which is about 16.83 percent of GDP. On the other hand, from 1970 to 1999, the average growth rate of GDP has been declining for both economies