



**UNIVERSITI PUTRA MALAYSIA**

***THE DYNAMICS OF THE CURRENT ACCOUNT BEHAVIOR IN THE  
ASEAN-5 COUNTRIES***

**EVAN LAU POH HOCK**

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UNIVERSITI PUTRA MALAYSIA**

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**By**

**EVAN LAU POH HOCK**

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

**November 2004**



**Especially Dedicated to:**

*The Veritas 'Hardcore' Rockers in the economics research for  
knowledge. Keep on the devotion to research!!!*



**Abstract of thesis presented to the Senate of Universiti Putra Malaysia in the fulfillment of the requirement for the degree of Doctor of Philosophy**

**THE DYNAMICS OF THE CURRENT ACCOUNT BEHAVIOR IN THE ASEAN-5 COUNTRIES**

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**November 2004**

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The current account is an endogenous variable that contains information about the behaviors of the economics agents. Thus, it is important for economic policymaking as it gives a broad reflection of the stance of macroeconomics policies. This dissertation empirically analyzed the anatomy of the dynamic current account behavior for the ASEAN-5 countries using three closely related elements. These includes evaluating the dynamic current account behavior using the present value model, the sustainability of current account imbalances and the interconnection between twin deficits phenomenon in the ASEAN-5 economies.

Several important results are summarized from this study. First, the statistical estimation from the present value model suggests that the agents behave as the forward-looking rational agents in the face of the shocks in the three out of five economies. This implies that the current account acts as a buffer to smooth the



consumption in the presence of shock and optimally smoothing its consumption path for these countries.

Second, the sustainability analysis clearly indicates that for all countries, (except Malaysia and Singapore), current account deficits were not on the long-run steady state in the pre-crisis (1961-1997) era. An important lesson from this result is that the large and persistent external imbalances can trigger a financial crisis. The policy action to correct the widening of current account deficits should have taken place prior to 1997 when the external imbalances were on the unsustainable path. In other words, the external imbalances may be used as an indicator (or early warning signal) for a forthcoming crisis.

Third, we found two channel of causal relationship between budget and current account deficits which (i) directly transmitted between budget and current account deficit and (ii) budget deficit is the driving force for interest rate, exchange rate and current account.

Solving and managing the current account problem had been the center of international economic policymaking in many countries around the globe. As such, the issues presented in this study would serve as important guidelines for the understanding of the co-movements of the current account behavior and provide a platform for debate on the experiences of developing countries in promoting macroeconomic stability and sustainability in their countries.



**Abstrak tesis yang di kemukakan kepada Senat Universiti Putra Malaysia  
sebagai memenuhi keperluan untuk ijazah Doktor Falsafah**

**KELAKUAN DINAMIK AKAUN SEMASA DARIPADA LIMA ASEAN  
EKONOMI**

**Oleh**

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**November 2004**

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Akaun semasa merupakan satu pembolehubah endogen yang mengandungi maklumat berkaitan pergerakan agen-agen ekonomi. Justeru, ia petunjuk penting dalam merangka polisi ekonomi negara memandangkan akaun semasa mencerminkan keadaan keseluruhan polisi makroekonomi. Kajian ini bertujuan untuk menganalisis secara empirikal struktur pergerakan dinamik akaun semasa bagi negara-negara ASEAN-5 dengan melihat kepada tiga perkara asas yang saling berkaitan iaitu model nilai kini, berkelanjutan ketidakseimbangan akaun semasa dan hubungkait fenomena defisit kembar antara ekonomi-ekonomi di ASEAN-5.

Beberapa penemuan penting daripada kajian ini boleh disimpulkan seperti berikut. Pertama, anggaran statistik dari model nilai kini mendapati bahawa wujud agen-agen ekonomi yang bersifat rasional terhadap apabila berhadapan dengan siri kejutan dalam tiga daripada lima ekonomi yang dikaji. Ini mencadangkan bahawa



akaun semasa bertindak sebagai pemampasan dalam menyerap kesan kejutan dan melicinkan arah penggunaan secara optima.

Kedua, analisis berkelanjutan atau kebolehtahanan jelas menunjukkan semua negara (kecuali Malaysia dan Singapura) mempunyai akaun semasa yang tidak berada pada tahap jangka panjang stabil semasa era pra-krisis kewangan (1961-1997). Satu pengajaran dari kesimpulan ini adalah iaitu ketidakseimbangan dalaman yang besar dan berterusan mampu mengakibatkan satu krisis kewangan. Langkah polisi yang bertujuan membetulkan jurang defisit akaun semasa sepatutnya dilaksanakan sebelum tahun 1997 apabila ketidakseimbangan dalaman berada dalam arah yang tidak berkelanjutan. Dalam kata lain, ketidakseimbangan dalaman ini boleh digunakan sebagai petunjuk atau penanda amaran awal bagi kejadian krisis.

Ketiga, kami mendapati wujud dua saluran hubungan penyebab diantara bujet dan defisit akaun semasa yang (i) berpindah terus antara bujet dan akaun semasa dan (ii) di mana bujet yang defisit menjadi kuasa pendorong kepada kadar faedah, kadar pertukaran dan akaun semasa.

Penyelesaian dan pengurusan masalah akaun semasa kini menjadi perhatian tunggal dalam perangkaan polisi ekonomi antarabangsa untuk kebanyakan negara di seluruh dunia. Justeru, isu-isu yang dibentangkan dalam kajian ini mampu memberi panduan penting bagi mendalamkan kefahaman tentang pergerakan akaun semasa dan menyediakan pentas perbahasan mengenai pengalaman negara-negara sedang membangun dalam memperkenalkan kestabilan dan berkelanjutan makroekonomi dalam negara masing-masing.

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## TABLE OF CONTENTS

|                                                                 | <b>Page</b>   |
|-----------------------------------------------------------------|---------------|
| DEDICATION                                                      | 2             |
| ABSTRACT                                                        | 3             |
| ABSTRAK                                                         | 5             |
| ACKNOWLEDGEMENTS                                                | 7             |
| APPROVAL                                                        | 8             |
| DECLARATION                                                     | 10            |
| TABLE OF CONTENTS                                               | 11            |
| LIST OF TABLES                                                  | 14            |
| LIST OF FIGURES                                                 | 16            |
| <br><b>CHAPTER</b>                                              |               |
| <b>I INTRODUCTION</b>                                           | <b>17</b>     |
| Preface                                                         | 17            |
| Current Account and its Importance                              | 18            |
| Problem Statements                                              | 23            |
| Objectives of the Study                                         | 28            |
| Significance of the Study                                       | 30            |
| Organization of the Dissertation                                | 33            |
| <br><b>II HISTORY AND ECONOMIC PERFORMANCE OF ASEAN-5</b>       | <br><b>34</b> |
| Introduction                                                    | 34            |
| The Birth and Evolution of ASEAN                                | 34            |
| ASEAN: The Road Ahead                                           | 38            |
| History and Economic Background of ASEAN-5                      | 42            |
| Roots of the 1997 Financial Crisis                              | 50            |
| Individual Countries Overviews                                  | 57            |
| Indonesia                                                       | 57            |
| Malaysia                                                        | 65            |
| Philippines                                                     | 72            |
| Singapore                                                       | 80            |
| Thailand                                                        | 88            |
| Conclusion                                                      | 94            |
| <br><b>III LITERATURE REVIEW</b>                                | <br><b>97</b> |
| Preface                                                         | 97            |
| Intertemporal Optimization Approach to the Current Account      | 97            |
| Introduction                                                    | 97            |
| The Birth and the Theoretical Impetus of Intertemporal Approach | 98            |
| Present Value Model of Current Account                          | 102           |
| Saving and Investment Approach                                  | 114           |
| Temporary and Permanent Components of Current Account           | 119           |
| Conclusion                                                      | 127           |
| Current Account Sustainability                                  | 130           |
| Introduction                                                    | 130           |
| The Concept                                                     | 130           |

|                                                                             |     |
|-----------------------------------------------------------------------------|-----|
| Empirical Evidence of Sustainability in Developed Countries                 | 133 |
| Empirical Evidence of Sustainability in Developing Countries                | 139 |
| Conclusion                                                                  | 148 |
| Twin Deficits Hypothesis                                                    | 149 |
| Introduction                                                                | 149 |
| Evolution of Twin Deficits                                                  | 150 |
| Relationship between Current Account Deficit and Budget Deficit             | 152 |
| Empirical Evidence on Conventional Views                                    | 154 |
| Empirical Evidence of Ricardian Equivalence Hypothesis (REH)                | 162 |
| Mixture Evidence of the Twin Deficits Debates                               | 167 |
| Conclusion                                                                  | 174 |
| Closing Remarks to the Chapter                                              | 177 |
| <br>                                                                        |     |
| IV MODELING STRATEGY, METHODOLOGY AND DATA                                  | 178 |
| Introduction                                                                | 178 |
| Intertemporal Approach                                                      | 178 |
| The Present Value Model of Current Account (PVMCA)                          | 178 |
| Methods of Estimation                                                       | 189 |
| Data and Parameter Values                                                   | 191 |
| Current Account Sustainability Theoretic Model                              | 193 |
| Estimation Procedure                                                        | 196 |
| Unit Root Tests                                                             | 197 |
| Cointegration (Johansen Multivariate Version)                               | 201 |
| Cointegration (Gregory and Hansen Method)                                   | 202 |
| Estimation of Long run Equilibria                                           | 205 |
| Data                                                                        | 206 |
| Twin Deficits Model                                                         | 207 |
| Estimation Methodology                                                      | 209 |
| Integrational Tests                                                         | 209 |
| Johansen-Juselius Procedure                                                 | 209 |
| Gregory and Hansen Procedure                                                | 210 |
| Granger Causality Tests                                                     | 211 |
| Dynamic Analysis: GIRFs and IRFs                                            | 215 |
| Data and Sources                                                            | 216 |
| Conclusion                                                                  | 217 |
| <br>                                                                        |     |
| V EMPIRICAL ESTIMATION RESULTS AND DISCUSSIONS                              | 219 |
| Introduction                                                                | 219 |
| Intertemporal Approach Empirical Findings                                   | 219 |
| Univariate Unit Root and Stationarity Tests                                 | 219 |
| Johansen-Juselius Multivariate Cointegration Results                        | 225 |
| Gregory-Hansen Cointegration Results                                        | 228 |
| Estimation of consumption tilting component of current account ( $\theta$ ) | 230 |
| Formal and the orthogonality tests of the model                             | 232 |
| Informal test of the model                                                  | 237 |
| Current Account Sustainability Empirical Findings                           | 243 |
| Unit Root and Stationarity Tests Findings                                   | 243 |
| Cointegration (Johansen Multivariate Version)                               | 251 |
| Cointegration (Gregory and Hansen Method)                                   | 255 |
| Estimation of Long Run Equilibria (DOLS)                                    | 258 |

|                                                        |     |
|--------------------------------------------------------|-----|
| Twin Deficits Phenomenon in ASEAN-5                    | 268 |
| Integrational Tests Results                            | 268 |
| Johansen-Juselius Results                              | 276 |
| Gregory and Hansen Results                             | 281 |
| Granger Causality Results (VECM and MWALD)             | 284 |
| Generalized Variance Decomposition (GVDCs) Results     | 292 |
| Indonesia GVDCs Position                               | 293 |
| Malaysia GVDCs Position                                | 295 |
| The Philippines GVDCs Position                         | 296 |
| Singapore GVDCs Position                               | 297 |
| Thailand GVDCs Position                                | 298 |
| Generalized Impulse Response Functions (GIRFs) Results | 300 |
| Indonesia GIRFs Visual                                 | 301 |
| Malaysia GIRFs Visual                                  | 302 |
| The Philippines GIRFs Visual                           | 302 |
| Singapore GIRFs Visual                                 | 303 |
| Thailand GIRFs Visual                                  | 304 |
| Persistent Profile of System-Shock                     | 311 |
| Conclusion                                             | 313 |
| <br>                                                   |     |
| VI CONCLUSION AND POLICY IMPLICATON                    | 314 |
| Introduction                                           | 314 |
| Conclusion                                             | 314 |
| Intertemporal Optimization Approach to Current Account | 314 |
| Current Account Sustainability                         | 318 |
| Twin Deficits Hypothesis                               | 320 |
| Policy Implications                                    | 324 |
| Limitation and the Avenues for Future Research         | 332 |
| Final Observation                                      | 333 |
| <br>                                                   |     |
| REFERENCES                                             | 335 |
| BIODATA OF THE AUTHOR                                  | 357 |

## LIST OF TABLES

| Table |                                                                                                                    | Page |
|-------|--------------------------------------------------------------------------------------------------------------------|------|
| 1     | Real Gross Domestic Product (GDP) Growth of East Asian for 1960s-1990s (percentage average annual for each decade) | 45   |
| 2     | Openness [(Exports + Imports) / 2 as percentage of GDP]                                                            | 47   |
| 3     | Major Economic Indicators for Indonesia (percent)                                                                  | 63   |
| 4     | Major Economic Indicators for Malaysia (percent)                                                                   | 70   |
| 5     | Major Economic Indicators for the Philippines (percent)                                                            | 78   |
| 6     | Major Economic Indicators for Singapore (percent)                                                                  | 87   |
| 7     | Major Economic Indicators for Thailand (percent)                                                                   | 92   |
| 8     | Unit Root and Stationarity Tests (ADF, PP and KPSS)                                                                | 221  |
| 9     | DFGLS and ZA Unit Root Tests                                                                                       | 224  |
| 10    | Lag Selection for Empirical Analysis                                                                               | 226  |
| 11    | Johansen Cointegration Test Results                                                                                | 228  |
| 12    | Gregory and Hansen (1996) Cointegration Test                                                                       | 229  |
| 13    | Cointegrating Regressions and Estimates of Consumption Tilting                                                     | 232  |
| 14    | Results for Present Value Model                                                                                    | 234  |
| 15    | Orthogonality Test of Present Value Model (Test on R)                                                              | 237  |
| 16    | Unit Root Tests for Full Sample (ADF, PP and KPSS)                                                                 | 245  |
| 17    | Unit Root Tests for Sub-Sample (ADF, PP and KPSS)                                                                  | 246  |
| 18    | DFGLS and Structural Break Unit Root Tests (Full Sample)                                                           | 248  |
| 19    | DFGLS and Structural Break Unit Root Tests (Sub-Sample)                                                            | 249  |
| 20    | Cointegration Test Results (Full Sample)                                                                           | 254  |
| 21    | Cointegration Test Results (Sub-Sample)                                                                            | 255  |
| 22    | Gregory-Hansen Cointegration Tests                                                                                 | 257  |
| 23    | Dynamic OLS Estimation (DOLS)                                                                                      | 260  |

|    |                                                            |     |
|----|------------------------------------------------------------|-----|
| 24 | Unit Root Tests (ADF, PP and KPSS)                         | 270 |
| 25 | DFGLS and Structural Break Unit Root Tests                 | 275 |
| 26 | Lag Selection based on Multivariate AIC                    | 277 |
| 27 | Johansen-Juselius Multivariate Cointegration Test          | 279 |
| 28 | Test of Exclusion Restrictions based on Johansen Procedure | 280 |
| 29 | Gregory-Hansen Cointegration Test                          | 282 |
| 30 | Short Run Temporal Causality in VECM Environment           | 285 |
| 31 | Long Run Granger non-causality using MWALD                 | 290 |
| 32 | Generalized Variance decomposition for Indonesia           | 294 |
| 33 | Generalized Variance decomposition for Malaysia            | 296 |
| 34 | Generalized Variance decomposition for the Philippines     | 297 |
| 35 | Generalized Variance decomposition for Singapore           | 298 |
| 36 | Generalized Variance decomposition for Thailand            | 299 |

## LIST OF FIGURES

| <b>Figure</b> |                                                                  | <b>Page</b> |
|---------------|------------------------------------------------------------------|-------------|
| 1             | Indonesia Current Account Position (percentage of GDP).          | 65          |
| 2             | Malaysia Current Account Position (percentage of GDP).           | 72          |
| 3             | Philippines Current Account Position (percentage of GDP).        | 79          |
| 4             | Singapore Current Account Position (percentage of GDP).          | 88          |
| 5             | Thailand Current Account Position (percentage of GDP).           | 94          |
| 6(a)          | Actual versus Optimal Current Account in Indonesia               | 238         |
| 6(b)          | Actual versus Optimal Current Account in Malaysia                | 239         |
| 6(c)          | Actual versus Optimal Current Account in the Philippines         | 241         |
| 6(d)          | Actual versus Optimal Current Account in Singapore               | 241         |
| 6(e)          | Actual versus Optimal Current Account in Thailand                | 242         |
| 7             | Indonesia CUSUM Graph                                            | 263         |
| 8             | Malaysia CUSUM Graph                                             | 263         |
| 9             | The Philippines CUSUM Graph                                      | 265         |
| 10            | Singapore CUSUM Graph                                            | 266         |
| 11            | Thailand CUSUM Graph                                             | 267         |
| 12            | Flow Diagram of Causality Linkages Summarized from VECM          | 288         |
| 13            | Flow Diagram of Causality Linkages Summarized from MWALD         | 292         |
| 14            | Generalized Impulse Response Function (IRFs) for Indonesia       | 306         |
| 15            | Generalized Impulse Response Function (IRFs) for Malaysia        | 307         |
| 16            | Generalized Impulse Response Function (IRFs) for the Philippines | 308         |
| 17            | Generalized Impulse Response Function (IRFs) for Singapore       | 309         |
| 18            | Generalized Impulse Response Function (IRFs) for Thailand        | 310         |
| 19            | Persistence Profile Shock for Cointegrating Vector               | 312         |



# CHAPTER ONE

## INTRODUCTION

### Preface

The golden eras for the world economy started after the end of World War II in 1945. At almost the same time, the standard monetary system that used a par value (fixed value) in terms of gold was also introduced. The system was introduced after the negotiations in Bretton Woods, New Hampshire where a number of forty-four countries agreed and signed a memorandum to follow the fixed exchange rate system. Unfortunately, from the birth of the system (fixed exchange rate) until its disappearance in early 1970s, it did not work well.

The aftermath of the World War II had left the European and the Japanese economies with shortage of international reserve to finance their large external imbalances while reconstructing the war-ravaged economies ([Rivera-Batiz and Rivera-Batiz, 1994](#)). While the problem is chaotic in these countries, the same impact perceived in those countries that experienced the gruesome attacks in the World War II such as those in this region and the Eastern Europe. They need plenty of reserve to rebuild and facilitate the basic infrastructure that is banished in the war, like rebuilding up a nation. In other words, the whole world felt the agony of the World War II and had taken some necessary and structural reformation in rebuilding up their economy. This process of adjustment and building up the economy led to the large and persistent current account deficits (or the balance of payment crisis). Since



then, most countries experienced macroeconomic instability that includes the decline in growth rate, high unemployment and inflation rate complement with external imbalances (Hooke, 1994). The development in external imbalances for most part of the world leads economists to research their behavior and tried to spell out the better understanding of the current account imbalances. This raise up a number of basic questions about what is current account and its' importance in policy making?

### **Current Account and its Importance**

What is current account? What does it show? What is their relevance in policy making? In a standard international economics textbook, current account is defined as the measurement of an economy trade in goods and services with the rest of the world, taking into account of the unilateral transfers. For a clearer visualization, an analogy between the case of a household and an economy will be presented. The household holds the receipts from its sales of goods and services in the form of salaries, as well as from transfers received from other households such as gifts from friends and relatives. On the other spectrum, it also makes payments for purchases in goods and services and for transfers to other people such as charitable donations. The balances on these purchases and sales of goods and services, plus the net unilateral transfers made, is the household current account balance. The households will faces the equivalent of a current account surplus when its receipts exceed the payments while deficits perceived when the payments exceed the receipts.

In the same manner, all these transactions are analogous to the international transactions of a country in which for current account balance; the economy will lend



abroad or buy some foreign stocks and bonds or the country's central bank will increase its holding in foreign currencies. On the other hand, when a country facing current account deficit, they had to finance it by borrowing from other countries, selling some of its stock, bonds and other financial assets or reducing its holding of foreign currencies (its official international reserve assets). In summary, the current account balance measures the overall net acquisition of foreign assets by the country.

Since the 1970s or even earlier, policy makers have endeavored to incorporate new theoretical advances of open economy macroeconomics into their analyses to attain a deeper understanding of the determinants and behavior of the current account movements. Moreover, the close relationship between the current account and other macroeconomic variables such as the fiscal and monetary policies, level of economic activity, real exchange rate, interest rate and the shift in the intertemporal behavior is presented in the literature to explain the evolution of the dynamic behavior in the external imbalances ([Knight and Scacciavillani, 1998](#)). In particular, the shift from a fixed par values to floating exchange rates in the early 1970s, oil price shocks<sup>1</sup>, the economic and structural transformation of the transition economies such as countries in Eastern Europe, the Baltics<sup>2</sup>, Russia and other countries of the former Soviet Union, the financial distress in Latin America and East Asian and the recent trends towards globalization have reshaped the internal and external economics environment. These changes have made the signals convey by

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<sup>1</sup> Large swings in the current account balances are recorded for most countries in the world partially as the result of oil price shocks during the second part of the 1970s ([Edwards, 2001](#)).

<sup>2</sup> Large current account imbalances have been recorded in the Baltics, Russia and other countries of the former Soviet Union since independence. For example, deficit greater than 15 percent of GDP was recorded for Armenia, Azerbaijan and Turkmenistan in 1997. Similarly, Slovakia recorded external imbalances over 8 percent of GDP in 2002 (see [Megarbane, 2002](#)).



current account imbalances more difficult to interpret and have altered both the objectives and scope of policy actions.

An array of theories has actually been developed to analyze the behavior and the significance of the current account imbalances since centuries ago. As pointed by [Pitchford \(1995 p. 17\)](#), the theories range from Hume's 'specie flow' mechanism, through the 'elasticities', 'absorption', the 'monetary', the 'portfolio balance' to the modern 'intertemporal optimizing' approach to current account, to mention just a few<sup>3</sup>. The evolution of these theories reflects not only the changes in international monetary institutions environment but also the failure of each successive theory to adequately explain the dynamic behavior of the current account in the face of changing economic scenarios. However, two most famous and applied competing theoretical methodologies in the current account evolution are the Mundell-Fleming approach and the intertemporal approach. In the 1960s, the Mundell-Fleming framework (see [Fleming, 1962](#) and [Mundell, 1963](#)) dominated the empirical investigation on current account determination. Despite their limitations, it still plays a prominent role in shaping policy decisions to this day. The intertemporal approach gains its popularity after the seminal work by [Sachs \(1981, 1982\)](#). Unlike its predecessors the intertemporal approach combined both the micro and macro structure of the economy which provides a useful framework for assessing the appropriateness of a country's dynamic current account behavior.

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<sup>3</sup> Interested reader could refer to the paper by [Knight and Scacciavillani \(1998\)](#) on the evolution and historical review on the dynamic movements of current account imbalances. Among others, they include theoretical discussion on the Mundell-Fleming model, saving and investment gap approach and the intertemporal model.



The importance of current account has been tract since the onset of generalized floating in 1973 where the current account has largely replaced the balance of payments as the barometer of the need for adjustment in a country's macroeconomic policies and stability (Salop and Spittaller, 1980). As noted earlier, current account indicate the change in a country's net stock of foreign assets or liabilities and the question therefore is whether or not they are the stabilizing forces that prevent further increases in these net foreign claim positions and ensure a smooth adjustment to a equilibrium. If such a mechanism do not exists, then the adjustment maybe forced through financial crisis (Fry, 1991). When such financial crisis does occur, excessive current account imbalances would imply a need for larger and more painful macroeconomic adjustments.

At the same time, since current account balance determines the evolution over time of a nation's stock of net claims on (or liabilities to) the rest of the world, it reflects the intertemporal decisions of domestic and foreign residents. As such, movements in the current account are therefore, deeply intertwined and they convey information about the actions and expectations of all the markets participants in an open economy. Thus, it is natural for the policy makers to treat the current account as an important macroeconomic variable in policy decision and the measurement of the economic performance of an open economy. This is to be done by endeavoring and explaining its movement, assessing its sustainable level while examining its close relationships with other macroeconomic variables in seeking and inducing changes in its behavior while reforming appropriate policy actions.



Additionally, under the fixed exchange rate regime, current account critically determines the level of international reserves. Persistent current account deficit draw down international reserves and leading to a possible foreign exchange rate crisis (Krugman, 1979). On the other hand, with floating exchange rate, current account deficit accompanied by excessive capital inflows can result in an overvalued currency not due to changes in economic fundamentals, leading to macroeconomic disequilibrium. The real exchange rate appreciation can lead to a decline in savings as domestic residents substitute present to future consumption. A vicious cycle is then created when the currency misalignment leads to increasing consumption of imported goods and capital creating a further widening of current account deficit. This would suggest the possible losses in foreign exchange reserves and the international competitiveness of a country with large and persistent current account deficit.

Due to the importance in the evolution of current account imbalances in theoretical and empirical analysis, the research matter concerning the current account imbalance behavior is documented and discuss thoroughly in this dissertation for five ASEAN countries, namely Indonesia, Malaysia, the Philippines, Singapore and Thailand (here after referred to ASEAN-5). The purpose is to provide constructive information and suggestion for policy makers to formulate appropriate policy measures in attaining sustainable economic growth and development strategies for the sample countries.



## Problem Statements

With the exception of Singapore, current account imbalances in most of the ASEAN-5 countries have widened considerably, generating concern in some quarters that policy measures maybe required in correcting the imbalances for the last two decades. The imbalances are due to large increase in import sector mainly the capital goods while the export earnings from each country cannot cover its import. Interestingly, this environment occurs during the fast phase of growth process in these countries.

These matters worsen with respect to both Malaysia and Thailand, whose deficits recorded over 8 percent of GDP in 1995. Although Indonesia recorded only 4 percent external deficit of GDP in 1995, concerns a rise relating to the impact of the widening in external deficit on the country's external debt and debt service level, which are significantly higher than other countries in this region. Indonesia's relatively high debt ratio reflects not only the accumulated external debt stock but also the share of exports in GDP, which are lower than other neighboring countries provided here. In other words, the debts write off the income generated from the export sectors. The Philippines has also experienced high external debt ratio.

As some economists may argue, the deficit in current account is not harmful to the economy due to the reason that a country is progressing through the stages of development (see [MAS, 1997](#)). As the country progress and moves into a particular stage of development, the position of external imbalances will also start to improve. These particular temporary shocks (adjustment process) will adjust to its equilibrium

when a country could generate its own income through export sectors and depends less on foreign participation in terms of debts payment mainly from external financing. In addition, if the foreign borrowings are used to finance quality investment which would eventually yield a return higher than or at the margin, equal to the cost of financing, a country can run a current account deficit at a certain stage of development without too much concern. A notable example in this region is Singapore where for the period of 1965-1985, the current account deficit averaging 10 percent of GDP (MAS, 1997). These imbalances were associated with large imports of capital goods during its industrialization process and reflect the investments expenditure in the economy's future earning capacity. After 1985, Singapore current account balances recorded large positive value until the present day. This implies that the 'good deficit' phenomenon in Singapore is an example of the intermediate process (temporary shocks) of the stages in economic development in a country.

However, in the other end of the spectrum, large and persistent current account deficit tends to pose more difficult problems to the economy in the long run. Specifically, they tend to increase domestic interest rates relative to their foreign rates, while simultaneously they impose an excessive burden on future generations as the accumulation of larger debt will imply increasing interest payment and thus lower standard of living (Hakkio, 1995). The matter worsen if the deficit are denominated in foreign currency that could increase the currency risk which lead to difficulties in debt servicing, rollover and eventually default if the income is inadequate in servicing the debt (Pitchford, 1992). The deficits also provide us a signal of macroeconomic imbalances, which call for the devaluation and/or tighter



macroeconomic policies. Large external imbalances are often assumed to play an important role in the propagation of currency crisis. The currency crisis in Chile and Mexico (early 1980s), the UK and Nordic countries (late 1980s), Mexico and Argentina (mid-1990) and more recently in Asian countries (late 1990s) is often associated with large and persistent current account deficits.

Also, the recent Asian financial crisis serves as a reminder that doing nothing to correct the imbalances can be dangerous because eventually they lead to the collapse in exchange rate and the economy as a whole. As we recall back in the history of most developing countries, they close-up their imbalances by borrowing from outside while in the same period the foreign investor invests in the country. This option can be risky because foreign investors will not finance the external imbalances of a particular country forever. To some extent, they will have to adjust back to the payment balance. The drying up of sources for financing the external imbalances push further the imbalances to an unsustainable level and in the end, it creates the vulnerability of the economy to exogenous external shocks. This is relevant for an economy that is increasingly becoming interconnected with world's financial market like the ASEAN-5 economies, where changes in market sentiment can have destabilizing effect on the financial as well as real sectors of the economy.

Three closely related elements regarding the behavior of current account and its importance in reforming the policy are presented in this dissertation. These include evaluating the dynamic current account behavior using the present value model, the sustainability of current account imbalances and the interconnection between twin deficits phenomenon in the ASEAN-5 economies.

