BY LEE SOO KAI (EGA 020048)

### SUBMITTED TO THE FACULTY OF ECONOMICS AND ADMINISTRATION, UNIVERSITY OF MALAYA IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF ECONOMICS

OCTOBER 2004



1

#### ACKNOWLEDGEMENT

I extend my heartfelt gratitude to Associate Professor Dr. Kwek Kian Teng, my supervisor for this research paper, for her support and guidance. She has imparted invaluable suggestions, ideas and understanding of the subject matter of this paper and help horned by skills in writing and presentations. Her intellectual contribution has also been vital and has enlightened my understanding of certain key issues.

I also like to express my appreciation to Associate Professor Dr. Cassey Lee and Associate Professor Dr. Goh Kim Leng, two of my lecturers, for their dedicated effort to impart valuable lessons on research work and econometric knowledge.

Lastly, my sincere thanks to all who have contributed one way or another to the completion of this paper. Notably, my fellow course-mates who have spend valuable time discussing with me and help me in many ways.

#### ABSTRACT

The objective of this paper is to investigate the sustainability of Malaysia's fiscal policy. We conduct the analysis in two major segments. The first segment looks at the longer-term risk of fiscal sustainability and adopted the Present Value Budget Constraint approach in conducting the empirical test. The second segment looks at the medium term risk through a set of fiscal sustainability indicators. The purpose of this study is to assess whether the past fiscal policy in Malaysia is sustainable in the long run and whether there is a medium term risk that investors may take an unfavourable view of the country's fiscal position. We conclude that Malaysia's fiscal policy is not sustainable in the long run but the medium term risk of corrective adjustment is not imminent. It is also determined that the Malaysia's Government must keep its overall fiscal deficit at 1.6% and primary deficit at 0.3% respectively in order to stabilize the debt-to-GDP ratio.

## TABLE OF CONTENT

| CHAPTER   |  |               |
|-----------|--|---------------|
| 1         | OVERVIEW   |               |
|           | 1.1 Introduction   | 6             |
|           | 1.2 Objectives   | 6-8           |
|           | 1.3 Data Sources and Description of Study  | 9-10          |
|           | 1.4 Organization of Study  | 10            |
|           | 2  |               |
| 2         | LITERATURE REVIEW  | 11-13         |
|           | 2.1 Introduction<br>2.2 Long Term Risk of Fiscal Sustainability: Testing Inter-                      | 13-26         |
|           | temporal Budget Constraint   | 15-20         |
|           | 2.3 Medium Term Risk of Fiscal Sustainability: Indicators Of   | 26-39         |
|           | Fiscal Sustainability  | 20 57         |
|           | ·  |               |
| 3         | METHODOLOGY  | 40            |
|           | 3.1 Introduction   | 40            |
|           | 3.2 Testing Inter-temporal Budget Constraint   | 40-43         |
|           | 3.3 Indicators Of Fiscal Sustainability  | <b>43-</b> 50 |
| 4         | RESULTS OF STATISTICAL TEST  |               |
|           | 4.1 Introduction   | 51            |
|           | 4.2 Stationary Test  | 51-56         |
|           | 4.3 Co-integration Test  | 57            |
|           | 4.4 Concluding Remarks   | 58            |
| 5         | RESULTS OF INDICATORS OF SUSTAINABILTY TEST  |               |
| 5         | 5.1 Introduction   | 59            |
|           | 5.2 Results of Indicators of Fiscal Sustainability   | 59-83         |
|           | 5.3 Concluding Remarks   | 84-85         |
|           | 5.5 Concluding Remarks   | 01.05         |
| 6         | CONCLUSION   |               |
|           | 6.1 Introduction   | 86            |
|           | 6.2 Summary for Long Term Risk of Fiscal Sustainability:<br>Testing Inter-temporal Budget Constraint | 86-87         |
|           | 6.3 Summary for Medium Term. Risk of Fiscal Sustainability:  | 87-92         |
|           | Indicators Of Fiscal Sustainability  | 07 72         |
|           | 6.4 Policy Implications  | 92-94         |
|           | 6.5 Limitation of Study  | 94            |
|           | -  |               |
| SUPPLEMEN |  | 00.04         |
|           | REFERENCES   | 95-96         |
|           | APPENDICES   | 97-99         |

4

# LIST OF TABLES

| Table | Description  | Page |
|-------|--|------|
| 4.1   | Results of Stationary Test On Nominal Series                           | 53   |
| 4.2   | Results of Stationary Test On Real Series                              | 56   |
| 4.3   | Results of Cointegration Test  | 57   |
| 5.1   | Simulation Results of External Debt (Excluding External Debts of NFPE) | 69   |
| 5.2   | Simulation Results of External Debt (Including External Debts of NFPE) | 70   |
| 5.3   | Assumption and Analysis For The Stabilization of Debt-to-GDP           | 73   |
| 5.4   | Trend of Seigniorage and Domestic Debt Growth Rate                     | 77   |
| 5.5   | Computations and Trend of Required Primary Surplus/Deficit             | 79   |
| 5.6   | Comparison of Past Trend of Budgeted and Actual Deficit Level          | 80   |
| 5.7   | Summary of Key Financial Sector Indicators                             | 83   |
| 6.1   | Deviation of Development Spending Under Malaysia Plans                 | 92   |

### LIST OF FIGURES

| Figure | Description  | Page |
|--------|--|------|
| 4.1    | Trend of Federal Covernment Finance in Nominal Term            | 52   |
| 4.2    | Trend of Federal Government Debt in Nominal Term               | 53   |
| 4.3    | Trend of Federal Government Finance in Real Term               | 55   |
| 5.1    | Trend of Debt-to-GDP ratio                                     | 60   |
| 5.2    | Trend of External Debt   | 61   |
| 5.3    | Excess Liquidity in the Banking System and Interest Rate level | 63   |
| 5.4    | Monetary and Fiscal Policy coordination                        | 65   |
| 5.5    | Trend of External Debt of Non-Financial Public Enterprises     | 67   |
| 5.6    | Summary of Growth Deviation and the Trend of Debt-to-GDP       | 75   |
| 5.7    | The Trend of the Deviation of Required and Actual Primary      | 81   |
|        | Surplus/Deficit  | 01   |