# ARBITRAGE PRICING THEORY AND INFLUENCES OF MACROECONOMIC FACTORS IN MALAYSIAN CAPITAL MARKET



#### BIRO PENYELIDIKAN DAN PERUNDINGAN UNIVERSITI TEKNOLOGI MARA 40450 SHAH ALAM, SELANGOR MALAYSIA

### **PREPARED BY :**

KARUNAGARAN A/L MADHAVAN DEVIGA A/P VENGEDASALAM

OCTOBER 2002

Tarikh : 7 Oktober 2002 No. Fail Projek:

Ketua Biro Penyelidikan dan Perundingan (BRC) Universiti Teknologi Mara 40450 Shah Alam.

Puan,

#### LAPORAN AKHIR PENYELIDIKAN "ARBITRAGE PRICING THEORY AND INFLUENCES OF MACROECONOMIC FACTORS IN MALAYSIAN CAPITAL MARKET"

Merujuk kepada perkara di atas, bersama-sama ini disertakan 3 (tiga) naskah Laporan Akhir Penyelidikan bertajuk "Arbitrage Pricing Theory and Influences of Macroeconomic Factors in Malaysian Capital Market " oleh kumpulan Penyelidik UiTM Johor untuk makluman pihak puan.

Sekian, terima kasih.

Yang benar,

Ketua Projek Penyelidikan

#### ABSTRACT

This study was done to examine the influences of macroeconomics factors in determining the stock market return. Monthly closing price of 100 common stocks (stocks which are listed under the Kuala Lumpur Composite Index) were taken for the period of January 1997 to December 2001. Six macroeconomics variables were selected for this study based on some prior research. Variables are Money Supply, Trade volume, Interest Rate, Inflation Rate, Industrial Production Index and Composite Index. Data analysis was done by using Microsoft Excel and Statistical Package for Social Science (SPSS).

Three hypotheses were tested in this study. First issue discussed was on the Multiple Regression in determining the relationship between stock market return and macroeconomics variables. Industrial Production Index and Composite Index gives the most significant relationship compared to other variables. Whereas, we also hypothesize the correlation coefficient between variables and findings indicate exists some relationship between variables.

Test on the stock pricing movement using two-stage regression model does not provide any significant results since the p-value of risk premium associated with the macroeconomics variables is less than 0.05. Overall findings shows exist some relationship between macroeconomics variables and stock market returns but these variables could not explain on the stock pricing movements.

v

# ACKNOWLEDGEMENT

Our sincere appreciation and special thanks goes to those who are directly as well as indirectly involved with the completion of this project. Your contribution, encouragement and supports are greatly appreciated.

They are, among others :

Prof. Dr. Mohd Sahar Bin Sawiran (Director, UiTM Johor)

Dr. Ruhaya Haji Atan (Asst. Director, UiTM Johor)

Assoc. Prof Arun Mohamad (UPP Coordinator, UiTM Johor)

Assoc. Prof. Dr Faridah Binti Hasan (Dean, Faculty of Business Management, UiTM)

> Assoc. Prof. Yusri Bin Ismail (Senior Lecturer, UiTM Johor)

Mr. Veera Pandiyan a/l Kaliani Sundram Mr. VGR Chandran a/l Govindaraju Encik Khairul Anuar Kamarudin (Lecturer, UiTM Johor)

KLSE and UiTM Johor Library Staffs

and

All UiTM Staffs

# LIST OF TABLES

## Page

Table 1 :	Total number of listed companies	17
Table 2 :	Coefficient for Multiple Regression on Portfolio 1	47
Table 3 :	ANOVA for Multiple Regression on Portfolio 1	47
Table 4 :	Coefficient for Multiple Regression on Portfolio 10	48
Table 5 :	ANOVA for Multiple Regression on Portfolio 10	49
Table 6 :	Coefficient for Multiple Regression on All Portfolios	50
Table 7 :	ANOVA for Multiple Regression on All Portfolios	50
Table 8 :	Summary results for all portfolios	51
Table 9 :	Correlation coefficient between variables	53
Table 10 :	Correlation coefficient between Portfolio Returns and	
	Other variables	55
Table 11 :	Two Stage Regression results	56