DYNAMIC INTERACTIONS AMONG STOCK PRICES, INTEREST RATES, REAL ACTIVITY AND MONEY IN MALAYSIA

BY

CHONG CHIN SIENG

(EGAX 01009)

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ABSTRACT

This study investigates the causal relations and dynamic interactions among stock prices, real interest rate, real money balances and real activity in Malaysia using monthly data from January 1987 to December 2001. This full sample period is also divided into two sub-periods for analysis. The first sub-period covers January 1987 to August 1998 while the second sub-period covers September 1998 to December 2001.

The conventional unit root tests suggest that all variables are integrated of order one. This finding is further supported by the results of the unit root test which allows for a structural break in the series. All the variables are cointegrated for the entire sample period and the two sub-periods. The existence of cointegration among stock prices with macroeconomic variables suggests evidence against the efficient market hypothesis for the Malaysian stock market.

For the full sample period, when money supply is defined as M1, real interest rate and real money balances adjust to disequilibrium. The results of Granger causality test suggest that industrial production and stock prices Granger-cause real money balances. Bi-directional causality between real interest rate and real money balances is found. On the other hand, if the M2 measure of money is used, all variables adjust to disequilibrium except stock prices. All variables tend to lead industrial production. The finding shows evidence that stock prices acted as a leading indicator of future economic activity. In addition, stock prices tend to lead real interest rate.

When M2 is used, the results of the first sub-period show that all the variables respond to disequilibrium and acted as leading indicators of industrial production. Industrial production and real money balances tend to lead stock prices. Nevertheless, the results for the second sub-period indicate that only stock prices and real interest rate respond to disequilibrium. This implies that since September 1998, real money balances are no longer an active monetary tool. Interest rate, however, remains an important monetary tool. In fact, a significant causal relation is found from industrial production to real interest rate during the second sub-period. This offers evidence of interest rate targetting. Real money balances only Granger-cause industrial production before the imposition of selective capital controls regime. Besides that, stock prices no longer act as a leading indicator of economic activity.

The main finding of the impulse response function is that more variables response to one-time shocks in the second sub-period compared with the first sub-period and the response period also takes longer time to settle down. This suggests that the economy is more sensitive towards changes in macroeconomic variables.

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TABLE OF CONTENTS

	Page
ABSTRACT	i
ACKNOWLEDGEMENTS	iii
LIST OF TABLES	vii
LIST OF FIGURES	ix
CHAPTER 1: INTRODUCTION	1
1.1 An Overview	1
1.2 Objectives of the Study	2
1.3 Organization of the Study	3
CHAPTER 2: LITERATURE REVIEW	5
2.1 Introduction	5
2.2 Studies on Other Countries	5
2.3 Studies on Malaysia	13
CHAPTER 3: DATA	16
3.1 Period of Analysis	16
3.2 Data and Sources	16
3.3 Details on Data Computation	25
3.3.1 Index of Industrial Production and Seasonally Adjusted Index of Industrial Production	25
3.3.2 Kuala Lumpur Composite Index	27

3.3.3 Real Interest Rate 28
3.3.4 Real Money Balances 29

CHAPTER 4: METHODOLOGY 30

4.1 Introduction 30

4.2 Unit Root Tests 30
4.2.1 Augmented Dickey-Fuller Unit Root Test 31
4.2.2 Phillips-Perron Unit Root Test 33
4.2.3 Unit Root Test with a Structural Break 34

4.3 Cointegration and Vector Error Correction Model 35

4.4 Adjustments to Disequilibrium and Granger Causality Test 40

4.5 Impulse Response Function 43

CHAPTER 5: FULL SAMPLE ANALYSIS 45

5.1 Introduction 45

5.2 Unit Root Tests 45
5.2.1 Augmented Dickey-Fuller and Phillips-Perron Unit Root Tests 46
5.2.2 Unit Root Test with a Structural Break 49

5.3 Cointegration 51

5.4 Vector Error Correction Model 53
5.4.1 Adjustments to Disequilibrium 56
5.4.2 Granger Causality 58

CHAPTER 6: SUB-PERIOD ANALYSIS 61

6.1 Introduction 61

6.2 Cointegration 62

6.3 Vector Error Correction Model 65
6.3.1 Adjustments to Disequilibrium 69
6.3.2 Granger Causality 71

6.4 Impulse Response Function 73

CHAPTER 7: DISCUSSIONS OF FINDINGS AND CONCLUSION 80

7.1 Introduction 80

7.2 Summary for the Full Sample Period 81

7.3 Summary for the Two Sub-Periods 82

7.4 Discussions of Findings 84

7.5 Limitations of the Study and Suggestions for Further Research 89

BIBLIOGRAPHY 91

LIST OF TABLES

Page

Table 3.1: KLSE Composite Index Components (As At 31/10/2001) 19

Table 5.1: Tests for Unit Root (In Levels) 47

Table 5.2: Tests for Unit Root (In First Differences) 48

Table 5.3: Unit Root Test with a Structural Break (In Levels and First Differences) 50

Table 5.4: Johansen Cointegration Test for the First System (M1) 52

Table 5.5: Johansen Cointegration Test for the Second System (M2) 52

Table 5.6: The Vector Error Correction Model for the First System (M1) 54

Table 5.7: The Vector Error Correction Model for the Second System (M2) 55

Table 5.8: F-Test for Adjustments to Disequilibrium 57

Table 5.9: Granger Causality Test for the First System (M1) 59

Table 5.10: Granger Causality Test for the Second System (M2) 60

Table 6.1: Johansen Cointegation Test for the First Sub-Period with Monetary Aggregate M1 63

Table 6.2: Johansen Cointegation Test for the First Sub-Period with Monetary Aggregate M2 63

Table 6.3: Johansen Cointegation Test for the Second Sub-Period with Monetary Aggregate M1 64

Table 6.4: Johansen Cointegation Test for the Second Sub-Period with Monetary Aggregate M2 64

Table 6.5: The Vector Error Correction Model for the First Sub-Period with Monetary Aggregate M1 66

Table 6.6: The Vector Error Correction Model for the First Sub-Period with Monetary Aggregate M2 67

Table 6.7: The Vector Error Correction Model for the Second Sub-Period with Monetary Aggregate M1 68

Table 6.8: The Vector Error Correction Model for the Second Sub-Period with Monetary Aggregate M2 69

Table 6.9: F-Test for Adjustments to Disequilibrium (First Sub-Period) 70

Table 6.10: F-Test for Adjustments to Disequilibrium (Second Sub-Period) 70

Table 6.11: Granger Causality Test for the First Sub-Period 72

Table 6.12: Granger Causality Test for the Second Sub-Period 73

LIST OF FIGURES

Page

Figure 3.1: KLSE Composite Index 20

Figure 3.2: Seasonally Adjusted Industrial Production Index (1985 = 100) 21

Figure 3.3: Nominal and Real Interest Rates 23

Figure 3.4: Real Money Balances 25

Figure 6.1(a): Response of $\Delta lnIIPS_t$ to Shocks in ΔRIR_t for the First Sub-Period 75

Figure 6.1(b): Response of $\Delta lnIIPS_t$ to Shocks in ΔRIR_t for the Second Sub-Period 75

Figure 6.2(a): Response of ΔRIR_t to Shocks in $\Delta lnIIPS_t$ for the First Sub-Period 75

Figure 6.2(b): Response of ΔRIR_t to Shocks in $\Delta lnIIPS_t$ for the Second Sub-Period 76

Figure 6.3(a): Response of ΔRIR_t to Shocks in $\Delta lnRB2_t$ for the First Sub-Period 76

Figure 6.3(b): Response of ΔRIR_t to Shocks in $\Delta lnRB2_t$ for the Second Sub-Period 76

Figure 6.4(a): Response of ΔRIR_t to Shocks in $\Delta lnSP_t$ for the First Sub-Period 77

Figure 6.4(b): Response of ΔRIR_t to Shocks in $\Delta lnSP_t$ for the Second Sub-Period 77

Figure 6.5(a): Response of $\Delta lnSP_t$ to Shocks in $\Delta lnIIPS_t$ for the First Sub-Period 77

Figure 6.5(b): Response of $\Delta lnSP_t$ to Shocks in $\Delta lnIIPS_t$ for the Second Sub-Period 78

Figure 6.6(a): Response of $\Delta lnSP_t$ to Shocks in $\Delta lnRB2_t$ for the First Sub-Period 78

Figure 6.6(b): Response of $\Delta lnSP_t$ to Shocks in $\Delta lnRB2_t$ for the Second Sub-Period 78

Figure 6.7(a): Response of $\Delta lnSP_t$ to Shocks in ΔRIR_t for the First Sub-Period 79

Figure 6.7(b): Response of $\Delta lnSP_t$ to Shocks in ΔRIR_t for the Second Sub-Period 79

Figure 7.1: Expansionary Monetary Policy under Fixed Exchange Rate 86