

# UNIVERSITI PUTRA MALAYSIA

GOLD AS A HEDGE FOR INFLATION RISK IN MALAYSIA

MOHAMAD KHAIR AFHAM BIN MUHAMAD SENAN

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# GOLD AS A HEDGE FOR INFLATION RISK IN MALAYSIA



# MOHAMAD KHAIR AFHAM BIN MUHAMAD SENAN



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

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the degree of Master of Science

## GOLD AS A HEDGE FOR INFLATION RISK IN MALAYSIA

By

# MOHAMAD KHAIR AFHAM BIN MUHAMAD SENAN

October 2013

#### Chair: Associate Professor Dr. Law Siong Hook, PhD

#### Faculty: Economics and Management

This study examines the long run and short run inflation hedging effectiveness of gold in Malaysia during the period of 1971 until 2011 by using monthly data. This study employed Engle-Granger cointegration test and Johansen cointegration test for long run analysis and Threshold Vector Autoregression (TVECM) for short run analysis. In the long run analysis, results from Engle Granger cointegration tests show that the cointegration between gold price and CPI is exist and gold is effective in hedging against inflation risk in Malaysia. These results are consistent with the Johansen cointegration test that has been employed. From Tsay's linearity test, this study detected the nonlinearity of the relationship between gold return and inflation rate and thus, allowed to proceed with nonlinear TVECM analysis. In short run, gold is proven to be effective as a hedging tool against inflation but the effectiveness varies on different price momentum (based on threshold) and the time period. It is found that during the high momentum regimes, gold return is able to hedge against inflation in Malaysia better than during low momentum regime. This study also found that from 2000 until 2011, the ability of gold in hedging against inflation is much better than the whole period of study. As for studying the causality relationship between gold return and inflation rate, this study found that only inflation does granger cause gold return and gold return does not granger cause inflation rate. The implication of the results of this study are microeconomic entities can have better and wider option to diversify their assets, helps in decision making process for investors helps government to star giving better awareness to citizens.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

## EMAS SEBAGAI PELINDUNG NILAI DARI RISIKO INFLASI DI MALAYSIA

Oleh

# MOHAMAD KHAIR AFHAM BIN MUHAMAD SENAN

October 2013

#### Pengerusi: Professor Madya Dr. Law Siong Hook, PhD

#### Fakulti: Ekonomi dan Pengurusan

Kajian ini mengkaji keberkesanan emas untuk melindungi nilai dari inflasi di Malaysia sepanjang tempoh tahun 1971 hingga 2011 dengan menggunakan data bulanan. Kajian ini menggunakan ujian kointegrasi Engle - Granger dan Johansen untuk analisis jangka panjang dan TVECM untuk analisis jangka pendek . Dalam analisis jangka panjang, hasil dari ujian kointegrasi Engle Granger, keputusan menunjukkan bahawa kointegrasi antara harga emas dan inflasi wujud dan emas adalah berkesan dalam melindungi dari. Keputusan ini adalah selaras dengan ujian kointegrasi Johansen. Daripada ujian kelinearan Tsay, kajian ini mengesan hubungan antara pulangan emas dan kadar inflasi yang tidak linear dan dengan itu, dibenarkan untuk diteruskan dengan analisis TVECM tidak linear . Dalam jangka pendek , emas terbukti berkesan sebagai pelindung nilai terhadap inflasi tetapi keberkesanan yang berbeza mengikut masa dan momentum. Kajian ini juga mendapati bahawa dari 2000 sehingga 2011, kemampuan emas dalam perlindungan nilai terhadap inflasi adalah lebih baik daripada tempoh keseluruhan pengajian. Bagi mengkaji hubungan sebab dan akibat antara pulangan emas dan kadar inflasi, kajian ini mendapati bahawa hanya inflasi mempengaruhi pulangan emas dan pulangan emas tidak mempengaruhi inflasi. Implikasi hasil kajian ini adalah entiti mikroekonomi mempunyai pilihan yang lebih baik dan lebih luas untuk mempelbagaikan aset mereka, membantu dalam proses membuat keputusan bagi pelabur dan membantu kerajaan untuk membintangi memberi kesedaran yang lebih baik untuk rakyat.



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#### APPROVAL SHEET 1

I certify that an Examination Committee has met on ...... to conduct the final examination of **Mohamad Khair Afham Bin Muhamad Senan** on his Master of Science thesis entitled "**Gold as a Hedge Against Inflation in Malaysia**" in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulation 1981. The committee recommends that the student be awarded the **Master of Science (Economics)**.

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Associate Professor Dr. Faculty of Economics and Management University Putra Malaysia (Chairman)

#### Name:

Title: Faculty of Economic and Management Universiti Putra Malaysia (Internal Examiner 1)

#### Name:

Title: Faculty of Economic and Management Universiti Putra Malaysia (Internal Examiner 2)

#### Name:

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> **Prof. Dr. Seow Heng Fong** Professor and Deputy Dean (Thesis) School of Graduate Studies Universiti Putra Malaysia

Date:

This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfillment of the requirement for the degree of Master of Science. The members of the Supervisory Committee were as follows:

Law Siong Hook, PhD Associate Professor Faculty of Economics and Management Universiti Putra Malaysia (Chairman)

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# TABLE OF CONTENTS

	Page
ABSTRACT	i
ABSTRAK	ii 🔺
ACKNOWLEDGEMENTS	iii
APPROVAL	iv
DECLARATION	vi
LIST OF TABLES	X
LIST OF FIGURES	xi

# CHAPTER

1

# 

# 1.1 Introduction

		-
1.2	Background of study	1
	1.2.1 Inflation Rate	1
	1.2.2 Gold as a Hedging Tool against Inflation	2
	1.2.3 Inflation in Malaysia	3
	1.2.4 Gold Price in Malaysia	4
	1.2.5 Other Financial Assets	6
1.3	Problem statement	8
1.4	Objective of Study	9
1.5	Significance of the study	10
1.6	Scope of the Study	10
1.7	Organization of the Study	11

1

# CHAPTER

# 2 LITERATURE REVIEW

2.1	Introduction	12
2.2	Relationship between Inflation and Gold Price	12
2.3	Ability of Gold to Hedge against Inflation	14
2.4	Methodology in Analyzing Gold's Hedging Ability	15
2.5	Conclusion	16

# CHAPTER

	3

# **RESEARCH METHODOLOGY**

3.1	1 Introduction	
	3.1.1 Justification of Linear Method in Long Run and	
	Nonlinear Method in Short Run	18
3.2	Estimation Procedure	18
	3.2.1 Stationarity Test	19
	3.2.1.1 Augmented Dickey Fuller Test	19

	3.2.1.2Philip-Perron Unit Root Test	19
	3.2.2 Cointegration Test	21
	3.2.2.1 Engle Granger Cointegration Test	21
	3.2.2.2 Johansen Cointegration Test	23
	3.2.3 Tsay's Linearity Test	23
	3.2.4 Threshold Vector Error Correction Model	24
3.3	Asymmetric Causality Test	26
3.4	Expected Sign and Relationship	27
3.5	Model Diagnostic Tests	27
3.6	Data Collection	28
3.7	Conclusion	28

# CHAPTER

#### **RESULTS AND DISCUSSIONS** 4

4.1	Introduction	29
4.2	Results for Unit Root Test	29
4.3	Results for Long Run Hedging Ability and	
	Cointegration Test	30
	4.3.1 Results for Engle Granger Cointegration Test	30
	4.3.2 Results for Johansen Cointegration Test	31
4.4	Results of Tsay's Linearity Tests	31
4.5	Assymmetric Causality Test	34
4.6	Diagnostic Tests	38
4.7	Impulse Response Analysis	39
4.8	Summary	44

# CHAPTER

5 SUMMARY, CONCLUSION AND RECOMMENDATION			
	5.1 5.2 5.3 5.4 5.5 5.6	Introduction Summary of Study Major Findings Implications Limitations Further Studies	45 45 46 48 48
REFFEREN	ICES		53
APPENDIC	ES		54
BIODATA OF THE STUDENT		55	