MONETARY POLICY TRANSMISSION MECHANISM IN GULF COOPERATION COUNCIL COUNTRIES

By

SAYYED MAHDI ZIAEI

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

October 2010
DEDICATION

I dedicated this thesis to my parents. I hope that this achievement will complete the dream that they had for me all those many years ago when they choose to give me the best education that I could.
This study examines monetary policy transmission mechanisms in six members of (Persian) Gulf Cooperation Council (GCC). While GCC authorities had succeeded to maintain economic stability during 1980s and 1990s, in last decade they experienced economic fluctuation due to; the depreciation of US dollar (increasing imports cost), inflationary pressures (decreasing purchasing power), effects of foreign shocks, fix exchange rate problems, and consequences of worldwide economic crises. Two econometric methods namely structural vector autoregressive (SVAR) and panel vector autoregressive (PVAR) are used in this thesis.
The results show that in GCC, the interest rate channel provides correct signs in accordance to theory, but the magnitude of effects is not very pronounced. A temporary rise in the short-term interest rate tends to be followed by a fall in output and price but these decreases aren’t amplitude. Moreover, in most GCC countries interest rate responds positively and simultaneously to unexpected positive innovation in the monetary aggregate (M2). Simultaneous interactions between monetary policy instruments and other variables such as monetary aggregate and exchange rate show that monetary policies would influence economy stronger if sovereignty of monetary authorities on monetary policy is increased. Furthermore, comparison between the channels of monetary policy in GCC countries indicate that there are two groups of countries classified in the matter of monetary policy transmission mechanisms; the first group includes; Saudi Arabia, the UAE and Bahrain. In this group the exchange rate channel is the most influential channel in the short term. The difference is that in long term in Saudi Arabia, the credit channel is the strongest channel after exchange rate channel, but in the UAE and Bahrain the interest rate channel is the most important channel. The second group includes; Kuwait, Oman and Qatar. In this group the credit channel is the strongest channel in the short term. However in the long term, the interest rate is strongest in Oman and exchange rate channel is most influential in the case of Kuwait and Qatar after credit channel. Moreover, effects of monetary policy on aggregate demand components demonstrate that (except Kuwait), monetary policy shocks influences investment more than other components of GDP.

In conclusion, this study found that monetary policy transmission mechanism operate to some extent in the same underlying monetary pattern across the member of GCC
countries, and with more flexible exchange rate and establishment of monetary union, influences of monetary policy on money and credit markets could be strengthened.
Sebagai penutup, kajian ini mendapati bahawa mekanisme penghantaran dasar kewangan beroperasi dalam pola kewangan terdasar yang sama antara ahli-ahli GCC, dan dengan kadar pertukaran yang lebih fleksibel serta penubuhan kesatuan kewangan, pengaruh-pengaruh dasar kewangan terhadap wang dan pasaran kredit boleh diperkukuhkan.
ACKNOWLEDGEMENTS

First and foremost, praise to be to the All-Mighty, Allah S.W.T for giving me the opportunity, Guidance, strength and patience to complete this dissertation despite several obstacles encountered throughout the course of this research, which at times seem insurmountable. This research would not have been possible without the support of many people. The author wishes to express his gratitude to his supervisor, Prof. Dr. Azali Mohamed who was abundantly helpful and offered invaluable assistance, support and guidance. I pray my Allah bless him and his family always. Deepest gratitude is also due to the members of the supervisory committee, Prof. Dr. Muzaffar Shah B Habibullah and Dr. Lee Chin without their knowledge and assistance this study would not have been successful.

The author would also like to convey thanks to the Ministry and Faculty of Economic and management university Putra Malaysia for their assistance and support. The author wishes to express his love and gratitude to his beloved families; for their understanding & endless love, through the duration of his studies.
I certify that an Examination Committee has met on 12 October to conduct the final examination of Sayyed Mahdi Ziae on his Doctor of Philosophy thesis entitled “MONETARY POLICY TRANSMISSION MECHANISM IN GCC COUNTRIES” in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15th March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

Members of the Examination Committee were as follows:

**Alias Radam, Ph.D.**
Professor
Faculty of Economics and Management
Universiti Putra Malaysia
(Chairman)

**Mansor Haji Ibrahim, Ph.D.**
Professor
Faculty of Economics and Management
Universiti Putra Malaysia
(Internal Examiner)

**Wan Azman Saini Wan Ngah, PhD.**
Senior Lecturer
Faculty of Economics and Management
Universiti Putra Malaysia
(Internal Examiner)

**Samir Makdisi, Ph.D.**
Professor
Institutes of Financial Economics
American University of Beirut
Lebanon
(External Examiner)

BUJANG BIM HUAT, PhD
Professor and Deputy Dean
School of Graduate Studies
Universiti Putra Malaysia
Date:
This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement of the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

**Azali b Mohamed, PhD**  
Professor  
Faculty of Economics and Management  
Universiti Putra Malaysia  
(Chairman)

**Muzaffar Shah b Habibullah, PhD**  
Professor  
Faculty of Economics and Management  
Universiti Putra Malaysia  
(Member)

**Lee Chin, PhD**  
Associate Professor  
Faculty of Economics and Management  
Universiti Putra Malaysia  
(Member)

---

HASANAH MOHD GHAZALI, PhD  
Professor and Dean  
School of Graduate Studies  
Universiti Putra Malaysia  
Date:
DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at university Putra Malaysia or at any other institution.

----------------------------------

SAYYED MAHDI ZIAEI

12 October 2010
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEDICATION</td>
<td>ii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>iii</td>
</tr>
<tr>
<td>ABSTRAKT</td>
<td>vi</td>
</tr>
<tr>
<td>AKNOWLEDGEMENTS</td>
<td>ix</td>
</tr>
<tr>
<td>APPROVAL</td>
<td>x</td>
</tr>
<tr>
<td>DECLARATION</td>
<td>xii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>xix</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xxi</td>
</tr>
<tr>
<td>ABBREVIATION</td>
<td>xxii</td>
</tr>
</tbody>
</table>

## CHAPTER

1. **OVERVIEW OF THE STUDY**
   - 1.1 Introduction........................................ 1
   - 1.2 Statement Of Research Problem......................... 3
   - 1.3 Objectives Of The Thesis.............................. 6
   - 1.4 Significance Of Study................................ 7
   - 1.5 Organization Of Thesis............................... 8

2. **GCC ECONOMIC STRUCTURE AND MONETARY POLICY**
   - 2.1 Introduction.......................................... 11
   - 2.2 GCC Economic Structures And Recent Development..... 12
   - 2.3 Fix Exchange Rates In GCC............................ 18
     - 2.3.1 Pros And Cons Of A Fixed Exchange Rate........... 19
   - 2.4 Monetary Policy Of Gcc Countries..................... 21
     - 2.4.1 Monetary Policy In Bahrain...................... 23
## LITERATURE REVIEW

### 3.1 Introduction

### 3.2 Transmission Mechanism Of Monetary Policy

#### 3.2.1 Interest Rate Channel

#### 3.2.2 Credit Channel

#### 3.2.3 Exchange Rate Channel

#### 3.2.4 Asset Price Channel

### 3.3 Empirical Studies Of Monetary Policy Transmission Channels

#### 3.3.1 Empirical Studies On Credit Channel

#### 3.3.2 Empirical Studies On Money & Credit Channels In Other Countries

#### 3.3.3 Empirical Studies On Asset And Wealth Channels

#### 3.3.4 Empirical Studies On Exchange Rate Channel

#### 3.3.5 Empirical Studies Of Monetary Transmission On Aggregate Demand Components

#### 3.3.6 Empirical Studies On Monetary Transmission Mechanism In Mena

### 3.4 Concluding Remarks

## METHODOLOGY

### 4.1 Introduction

### 4.2 VAR Model Classification

### 4.3 Formal SVAR Model
4.3.1 Impulse Response And Variance Decomposition 88
4.4 Some Puzzles In VAR Literature 90
4.5 SVAR Model Of KR 93
   4.5.1 Privileges Of KR Model 97
4.6 Fixed Exchange Rate 98
   4.6.1 Monetary Policy Modeling And Fix Exchange Rate 99
4.7 SVAR Baseline Model Of GCC Countries 103
4.8 PVAR Model For GCC Countries 108
4.9 Estimation Process 111
4.10 Data Description 112

5 MONETARY POLICY SHOCKS, SVAR RESULTS 114
5.1 Introduction 114
5.2 Specifying Lag Length 115
5.3 Choosing Money Equilibrium Market Sets 116
   5.3.1 Bahrain 116
   5.3.2 Kuwait 117
   5.3.3 Oman 118
   5.3.4 Qatar 118
   5.3.5 Saudi Arabia 119
   5.3.6 UAE 119
5.4 Contemporaneous Relationship Between Variables 120
5.5 Bahrain Interest Rate Channel 122
   5.5.1 Impulse Response 122
   5.5.2 Variance Decomposition 123
   5.5.3 Summary Of Results 123
5.6 Kuwait Interest Rate Channel 126
   5.6.1 Impulse Response 126
6.2.5 Saudi Arabia 156
6.2.6 UAE 158
6.3 Bank Lending Channel 161
   6.3.1 Bahrain 163
   6.3.2 Kuwait 165
   6.3.3 Oman 168
   6.3.4 Qatar 170
   6.3.5 Saudi Arabia 173
   6.3.6 UAE 175
   6.3.7 Comparison Channel Of Monetary Policy Transmission Mechanism 178
6.4 Diagnostic Test 180
6.5 Analysis Effect Of Monetary Policy On Aggregate Demand Components 184
   6.5.1 Bahrain 185
   6.5.2 Kuwait 187
   6.5.3 Oman 188
   6.5.4 Qatar 189
   6.5.5 Saudi Arabia 190
6.6 PVAR Analysis Of Monetary Policy In GCC States 192
   6.6.1 Impulse Response And Variance Decomposition 193
   6.6.2. Evaluation Of PVAR & SVAR 196
6.7 Concluding Remarks 197

7  CONCLUSION 201
7.1 Introduction 201
7.2 Summary 201
7.3 Conclusion About Different Blocks 203
   7.3.1 Exogenous Variables 204
   7.3.2 Output 206
7.3.3 Price 208
7.3.4 Interest Rate 209
7.3.5 Monetary Aggregate 211
7.3.6 Nominal Effective Exchange Rate 211
7.3.7 Domestic Credit To The Private Sector 213
7.3.8 Summary Of Results On Basis Of Thesis Objective 214
7.4 Policy Implication 215
  7.4.1 Monetary Policy Of GCC Countries And Fixed Exchange Rate 215
  7.4.2 Monetary Policy And Monetary Union 218
  7.4.3 Some Recommendation 223
7.5 Limitation Of Study 226
7.6 Future Research 228

REFERENCES 229
APPENDICES 243
BIODATA OF STUDENT 268
LIST OF PUBLICATIONS 269