The copyright © of this thesis belongs to its rightful author and/or other copyright owner. Copies can be accessed and downloaded for non-commercial or learning purposes without any charge and permission. The thesis cannot be reproduced or quoted as a whole without the permission from its rightful owner. No alteration or changes in format is allowed without permission from its rightful owner.
MEASURING FINANCIAL STRESS INDEX (MFSI) FOR MALAYSIAN ECONOMY

BY

JAMAATUN ZAHARIAH BINTI SUHAIMI

A Master Project Submitted to

Othman Yeop Abdullah Graduate School of Business

University Utara of Malaysia

In Fulfilment of the Requirement for the Master Degree of Economics
PERMISSION TO USE

In presenting this project paper in partial fulfilment of the requirements for a Post Graduate Degree from the University Utara of Malaysia (UUM), I agree that the Library of this university may make it freely available for inspection. I further agree that permission for copying this project paper in any manner, in whole or in part, for scholarly purpose may be granted by my supervisor or in their absence, by the Dean of Othman Yeop Abdullah Graduate School of Business where I did my project paper. It is understood that any copying or publication or use of this project paper parts of it for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the UUM in any scholarly use which may be made of any material in my project paper.

Request for permission to copy or to make other use of materials in this project paper in whole or in part should be addressed to:

Dean of Othman Yeop Abdullah Graduate School of Business

University Utara Malaysia

06010 UUM Sintok

Kedah Darul Aman
ABSTRACT

This study focuses on the construction of financial stress index in an emerging economy like Malaysia. This becomes imperative as a result of the repeated episodes of financial crises. This study measures financial stress index for Malaysian economy. We aggregate the identified financial and economic factors into a single index using the principal component analysis (CPA). The result shows that MFSI increases as a result of increase in banking sector fragility index, credit stress, external debt, stock market volatility and exchange market pressure index. Moreover, the weights of the variables reveal that the magnitude of the Malaysian financial stress is mainly driven by the fragility of the banking sector. The combine variables explain about 53 percent of the total variation in the Malaysian financial stress index (MFSI). Thus, the financial stress is determined to be the key player in the co-movement of the components used in the construction process. Furthermore, the aggregated components practically capture the known key aspects of financial stress in Malaysia. The implication of the finding is that authorities should focus more on banking sector stability than other components of the financial stress. This will help to reduce the overheating of the Malaysian financial stress.
ABSTRAK

ACKNOWLEDGEMENT

All praise due to Allah SWT, the Lord of the world that makes it possible for me to complete this project. Blessing and salutation also be on Prophet of Allah SWT, Muhammad SAW. I would like to take this opportunity to express my gratitude and appreciation to the following individuals whose guidance and contribution in preparing this paper.

I am greatly indebted to my supervisor, Associate Professor Dr. Hussin bin Abdullah who has made a significant contribution until the completion of this project paper and deserves special thank for his kindness, patient, generosity and guidance. Special thanks also go to Professor Jauhari Dahalan and Mr. Mohammad Umar (PhD candidate from Nigeria) who has made a huge contribution on this study.

Finally, special respect and thanks to my beloved husband who inspires me to succeed and also to my parents for their unconditional love and encouragement. Last but not least, special thanks also go to my family members and friends for being supportive throughout my studies in University Utara Malaysia, Sintok, Kedah.

Thank you.
# TABLE OF CONTENT

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERMISSION TO USE</td>
<td>i</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>ii</td>
</tr>
<tr>
<td>ABSTRAK</td>
<td>iii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENT</td>
<td>iv</td>
</tr>
<tr>
<td>TABLE OF CONTENT</td>
<td>v</td>
</tr>
<tr>
<td>LIST OF DIAGRAM</td>
<td>vii</td>
</tr>
<tr>
<td>LIST OF FIGURE</td>
<td>viii</td>
</tr>
<tr>
<td>LIST OF TABLE</td>
<td>ix</td>
</tr>
</tbody>
</table>

## 1.0 INTRODUCTION

1.1 Introduction 1

1.2 Background of Study 1

1.3 The Financial System in Malaysia 3

1.4 The Central Bank 6

1.5 Conceptualizing Financial Stress 7

1.6 Problem Statement 8

1.7 Research Questions 13

1.8 Research Objectives 13

1.9 Significant of the Study 13

1.10 Scope of the Study 14

1.11 Organization of the Study 15

## 2.0 LITERATURE REVIEW

2.1 Introduction 16

2.2 Theoretical and Conceptual Review 16
3.0 METHODOLOGY

3.1 Introduction 23
3.2 Data Description 23
3.3 Measuring the Financial Stress Index for Malaysia 24
3.4 Banking Sector Risk 25
3.5 Stock Market Risk 26
3.6 Currency Market Volatility 26
3.7 Sovereign Bond Risk 27
3.8 Credit Stress 28
3.9 External Debt 28
3.10 Principal Component Analysis 29

4.0 EMPIRICAL RESULTS

4.1 Introduction 31
4.2 Aggregation of the Components 31
4.3 Principal Component Analysis 32

5.0 CONCLUSIONS AND POLICY IMPLICATIONS

5.1 Introduction 39
5.2 Conclusions and Policy Implications 39
5.3 Suggestion for Further Studies 41

REFERENCES 42
<table>
<thead>
<tr>
<th>Diagram</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Schematic of Financial Stress</td>
<td>8</td>
</tr>
</tbody>
</table>
# LIST OF FIGURE

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>The Malaysia’s Financial Stress Index</td>
<td>37</td>
</tr>
</tbody>
</table>
# LIST OF TABLE

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Correlation Coefficients of MFSI Components</td>
<td>32</td>
</tr>
<tr>
<td>4.2 Principal Component Analysis Results</td>
<td>33</td>
</tr>
</tbody>
</table>
CHAPTER ONE
INTRODUCTION

1.1 Introduction

This chapter outlines the introduction of this study consists the background of study problem statement, research questions and objectives, significant of study and scope and limitations of the study.

1.2 Background of the Study

The growing role of the emerging economies in the global landscape is having significant implications on global and regional trade and finance, the nature and direction of capital flows, and global governance in the areas of finance and economics. In the global economy, Asia is leading the recovery process today, and is expected to remain as the world’s fastest growing region over this decade. The rapid transformation of the region over this decade will contribute to increasing its financial and economic potential.

Within Asia, the Association of Southeast Asian Nations (ASEAN) region is in a strategic position to leverage on the increasing opportunities emanating from the Asia-Pacific region. The integration of ASEAN as a single market will enhance the region’s growth and dynamism. The sizeable population of about 600 million people in ASEAN presents a large and fast-expanding market. The region’s focus on greater financial integration will further enhance regional economic growth and promote
The contents of the thesis is for internal user only
REFERENCES


