AN EMPIRICAL ANALYSIS OF UNIT TRUST PERFORMANCE IN
EQUITY-BASED PUBLIC SERIES OF FUNDS

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DECLARATION

I hereby declare that this dissertation contains my original research work. Sources of findings reviewed herein have been duly acknowledged.

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ABSTRACT

This paper seeks to focus on examining the unit trust funds in Malaysia which are equity-based Public Series of Funds. The study covers a period of five years from 2001 till 2005. Several performance measurements have been adopted in this study, including Treynor Ratio, Sharpe Ratio, Adjusted Sharpe Ratio and Jensen’s Alpha. All performance measurements indicated that performances in the studied funds are neutral when being risk-adjusted. These few funds have similar ranking when different measurements are used. Beta values shows that all funds are less than one and it indicates systematic risks are low. R-squared is being used to find out how close the results compared to the benchmark. From the results, EMAS Index is a slightly better benchmark to be used. Jensen’s Alpha shows that funds are unable to beat the market during the studied period. Since this paper only takes aggregate performance into account such as stock selectivity ability, where timing ability is not being tested, suggestion for further investigation is being encouraged so that manager’s ability in both areas can be obtained. This study concentrates only on the unconditional performance. It is recommended that conditional measurements model is suggested for further research.
# CONTENTS

DECLARATION iii
CERTIFICATION iv
ACKNOWLEDGEMENT v
ABSTRACT vi
CONTENTS vii
LIST OF TABLES viii
LIST OF FIGURES ix
LIST OF SYMBOLS AND ABBREVIATIONS x

## CHAPTER 1  FORWARD

1.1 Introduction 1
1.2 Research Background 1
   1.2.1 World Perspective History 3
   1.2.2 The Development of Unit Trusts in Malaysia 4
1.3 Type of Unit Trust 8
   1.3.1 Opened-ended Funds 8
   1.3.2 Closed-ended Funds 8
1.4 Classification of Funds 9
   1.4.1 Growth Funds 9
   1.4.2 Income Funds 9
   1.4.3 Balanced Funds 10
1.5 Objective of Study 10
1.6 Scope of Study 11

## CHAPTER 2  LITERATURE REVIEW

2.1 Introduction 12
2.2 Theoretical Framework 13
   2.2.1 Mean-Variance Theory 13
   2.2.2 Capital Asset Pricing Model (CAPM) 14
   2.2.3 Treynor Ratio 18
2.2.4 Sharpe Ratio
2.2.5 Comparison between Sharpe Ratio and Treynor Ratio
2.2.6 Adjusted Sharpe Ratio
2.2.7 Jensen’s Alpha
2.3 Empirical Studies

### CHAPTER 3 METHODOLOGY

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Data</td>
<td>32</td>
</tr>
<tr>
<td>3.2 Normality Test</td>
<td>32</td>
</tr>
<tr>
<td>3.3 Measurement of Performance</td>
<td>33</td>
</tr>
<tr>
<td>3.3.1 Treynor Ratio</td>
<td>34</td>
</tr>
<tr>
<td>3.3.2 Sharpe Ratio</td>
<td>35</td>
</tr>
<tr>
<td>3.3.3 Adjusted Sharpe Ratio</td>
<td>36</td>
</tr>
<tr>
<td>3.3.4 Jensen’s Alpha</td>
<td>37</td>
</tr>
<tr>
<td>3.4 Benchmark</td>
<td>37</td>
</tr>
<tr>
<td>3.5 Hypothesis</td>
<td>38</td>
</tr>
</tbody>
</table>

### CHAPTER 4 EMPIRICAL RESULT AND ANALYSIS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 The Test of Normality</td>
<td>41</td>
</tr>
<tr>
<td>4.2 The Raw Return against Variability Measurements</td>
<td>41</td>
</tr>
<tr>
<td>4.3 Treynor Ratio</td>
<td>42</td>
</tr>
<tr>
<td>4.4 Modern Portfolio Theory Statistics</td>
<td>44</td>
</tr>
<tr>
<td>4.4.1 Beta and R-squared</td>
<td>45</td>
</tr>
<tr>
<td>4.4.2 Jensen’s Alpha</td>
<td>45</td>
</tr>
</tbody>
</table>

### CHAPTER 5 CONCLUSION AND SUGGESTION

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>REFERENCES</td>
<td>54</td>
</tr>
<tr>
<td>APPENDIX</td>
<td>58</td>
</tr>
<tr>
<td>No. of Table</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>4.1</td>
<td>The results of raw return</td>
</tr>
<tr>
<td>4.2</td>
<td>The raw return results against Sharpe Ratio and Adjusted Sharpe Ratio</td>
</tr>
<tr>
<td>4.3</td>
<td>The results of Treynor Ratio in different benchmarks</td>
</tr>
<tr>
<td>4.4</td>
<td>Summary statistics using KLCI and EMAS Index as market benchmark</td>
</tr>
<tr>
<td>4.5</td>
<td>The rankings of funds by Jensen’s Alpha by different benchmarks</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>No. of Figure</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Numbers of management companies and approved funds</td>
<td>6</td>
</tr>
<tr>
<td>1.2 Total NAV (RM billion) against market capitalization</td>
<td>6</td>
</tr>
<tr>
<td>1.3 Public Mutual NAV against market NAV</td>
<td>7</td>
</tr>
<tr>
<td>1.4 Market share of private unit trust industry as at 31 May 2006</td>
<td>7</td>
</tr>
</tbody>
</table>
### LIST OF SYMBOLS AND ABBREVIATIONS

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \beta )</td>
<td>beta</td>
</tr>
<tr>
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<tr>
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<td>alpha</td>
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<tr>
<td>( \varepsilon )</td>
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<td>%</td>
<td>percent</td>
</tr>
<tr>
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<td>Arbitrary Pricing Theory</td>
</tr>
<tr>
<td>ASN</td>
<td>Amanah Saham Nasional</td>
</tr>
<tr>
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<td>Amanah Saham Nasional Berhad</td>
</tr>
<tr>
<td>BNM</td>
<td>Bank Negara Malaysia</td>
</tr>
<tr>
<td>CAPM</td>
<td>Capital Asset Pricing Model</td>
</tr>
<tr>
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</tr>
<tr>
<td>cov</td>
<td>Covariance</td>
</tr>
<tr>
<td>DEA</td>
<td>Data Envelopment Analysis</td>
</tr>
<tr>
<td>EPF</td>
<td>Employees Provident Fund</td>
</tr>
<tr>
<td>EMAS</td>
<td>Exchange Main Board All-Share</td>
</tr>
<tr>
<td>FIC</td>
<td>Foreign Investment Committee</td>
</tr>
<tr>
<td>FMUTM</td>
<td>Federation of Malaysia Unit Trusts Managers</td>
</tr>
<tr>
<td>GARCH</td>
<td>Generalized Autoregressive Conditional Heteroskedasticity</td>
</tr>
<tr>
<td>( H_0 )</td>
<td>Hypothesis null</td>
</tr>
<tr>
<td>( H_1 )</td>
<td>Hypothesis alternative</td>
</tr>
<tr>
<td>IRA</td>
<td>Individual Retirement Account</td>
</tr>
<tr>
<td>ISUR</td>
<td>Iterative Seemingly Unrelated Regressions</td>
</tr>
<tr>
<td>IUTA</td>
<td>Institute Unit Trust Agents</td>
</tr>
<tr>
<td>KLCI</td>
<td>Kuala Lumpur Composite Index</td>
</tr>
<tr>
<td>KLSE</td>
<td>Kuala Lumpur Stock Exchange</td>
</tr>
<tr>
<td>MITI</td>
<td>Ministry of Trade and Industry</td>
</tr>
<tr>
<td>MPT</td>
<td>Market Portfolio Theory</td>
</tr>
<tr>
<td>NAV</td>
<td>Net Asset Value</td>
</tr>
<tr>
<td>OLS</td>
<td>Ordinary Least Square</td>
</tr>
<tr>
<td>PAGF</td>
<td>Public Aggressive Growth Fund</td>
</tr>
<tr>
<td>PGF</td>
<td>Public Growth Fund</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>PIF</td>
<td>Public Industry Fund</td>
</tr>
<tr>
<td>PIX</td>
<td>Public Index Fund</td>
</tr>
<tr>
<td>PNB</td>
<td>Permodalan Nasional Berhad</td>
</tr>
<tr>
<td>PRSF</td>
<td>Public Regular Savings Fund</td>
</tr>
<tr>
<td>PSF</td>
<td>Public Savings Fund</td>
</tr>
<tr>
<td>PSMALLCAP</td>
<td>Public SmallCap Fund</td>
</tr>
<tr>
<td>REIT</td>
<td>Real Estate Investment Trust</td>
</tr>
<tr>
<td>ROC</td>
<td>Registrar-of Companies</td>
</tr>
<tr>
<td>SC</td>
<td>Securities Commission</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package for Social Science</td>
</tr>
<tr>
<td>TOP</td>
<td>Panel on Take-overs and mergers</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>VaR</td>
<td>Value at Risk</td>
</tr>
</tbody>
</table>
CHAPTER 1

FOREWORD

1.1 Introduction

Unit trust, also known as mutual fund, is an intermediary for savings and investments that formed through collective investment which is divided into equal portions, called units that allow investors with similar investment objectives to pool their money, which are further invested in a portfolio of securities or other assets managed by investment professionals. It is established under a deed. Investment can be defined as the sacrifice of certain current consumption for an uncertain future consumption. The process of collective investment is called diversification as it reduces overall risk.

1.2 Research Background

This study is about an empirical analysis on unit trust performance in equity-based Public Mutual Series of Fund. Unit trust industry has received considerable attention in an emerging market like Malaysia. It has experienced significant growth at an incredible pace in the past 15 years and has gained about five folds growth in total Net
Asset Value (NAV). NAV is the share price of a mutual fund that shows the activeness of the managers' price per unit. It reflects the amount of funds a fund manager has to invest or work with. It is calculated by dividing the total net assets of the fund by the total number of shares outstanding.

The strong growth is due to several factors. With the government support, Permodalan Nasional Berhad (PNB) plays a major role to accelerate this industry. Following the establishment of Securities Commission (SC) on 1st March 1993, which functions as to centralize the industry regulation, the implementation of the Securities Commission (Unit Trust Scheme) Regulations in 1996 have greatly motivated this industry to grow rapidly. The Capital Market Master Plan, which has been introduced in 2001, paved the way for proliferation and progressive development of investment industry. New regulations which allowed third party distribution and the licensing of tied-agents involved in the distribution of unit trusts, as well as stock broking companies being permitted to manage unit trusts, contribute to further impetus the industry to grow and develop. Various new investment products also give this industry greater opportunity to tap in different financial needs in the market.

Public Mutual (formally Kuala Lumpur Mutual Fund Berhad) which has established in Malaysia since 1975 has played a very important role in private unit trust industry. In term of market position, it maintains the largest market share of assets under management, in total 29% (The Edge, Lipper Fund Table, 28 February 2006). The company has won many awards in past few years. It has won eleven best fund awards for the year 2005 in The Edge-Lipper Malaysia Fund Awards and fifteen best fund awards in the Star/Standard & Poor's Investment Fund Awards Malaysia for
the year 2005 (Public Mutual Master Prospectus of Public Series of Funds, 30 April 2006 – 29 April 2007).

1.2.1 World Perspective History

The history of unit trust funds can be traced back to the nineteenth century in Belgium. In 1822, King William I established the first closed-end unit trust fund called Societe General de Belgium, a fund. However, some argue that a Dutch merchant named Adriaan van Ketwich whose investment trust created in 1774 may have given the king the idea. He probably theorized that diversification would increase the appeal of investments to smaller investors with minimal capital. The name of van Ketwich's fund, *Eendragt Maakt Magt*, means "unity creates strength". The idea of diversifying risk using closed-end investments spread to Switzerland in 1849, France in 1852, Great Britain in 1868, Scotland in the 1880s, United States in the 1890s, and Philadelphia, Pennsylvania, in 1907. (Investopedia Inc. 2005)

The Boston Personal Property Trust was the first closed-end fund formed in the U.S. in 1893. On 21st March 1924, the first official mutual fund, the Massachusetts Investors Trust was launched by Edward G. Leffler through Massachusetts Financial Services in Boston, the United States. Two hundred professors and the staff of Harvard University as shareholders had accumulated investments of US$50,000 in assets. The first no-load fund called First Investment Counsel Corp was launched in 1928. Now, it still exists as the Scudder Income Fund. Due to the Wall Street stock crash in October 1929, many American investors turned their interest to mutual funds. It is now popular through 401k, IRAs and Roth IRAs plan.
1.2.2 The Development of Unit Trusts in Malaysia

a. 1959-1979: Slow growth, lack of public interest

The history of unit trust in Malaysia (then Malaya) has its roots when the concept was first introduced into by a group of British investors. They appointed an accounting firm, Cooper Brothers & Company, as their secretary to establish the first unit trust company - Malayan Unit Trust Limited. On November 1959, the first unit trust fund called Unit Trust Fund of Malaya was launched. It only had a life span of 10 years.

The first beginning of the unit trust industry development was characterized by slow growth in the sales of units and a lack of public interest in the investment product. Only five new unit trust management companies were established, with a total of 18 funds introduced over the next twenty years after the first unit trust was established.

In 1975, Kuala Lumpur Mutual Fund Berhad was established. The turning point for the industry was when the Malaysian government decided to enter into the industry. Permodalan Nasional Berhad (PNB) was conceived by the government in 1978. It is the largest investment holding company.

b. 1980-1990: Government participation

In this period, a Committee was formed to regulate the unit trust industry, called the Informal Committee for Unit Trust Funds, comprising representatives from the ROC, BNM, the Public Trustee of Malaysia and the Capital Issues Committee (CIC).
The unit trust industry marked a significant development in the history of which there was the addition of various schemes since 1980s. In 1981, Scheme Amanah Saham Nasional (ASN) was launched by Permodalan Nasional Berhad (PNB) as a restructuring process to help promote savings and improve the social-economic status for the natives (ASNB Master Prospectus dated June 30, 2004).

c. 1991 till now: Fastest growing period

This period has experienced tremendous growth of the unit trust industry in terms of the number of new management companies established funds under management and total NAV, as shown in Figure 1.1 and Figure 1.2. Since 1st March 1993, the SC has taken over the responsibility for overseeing the Malaysian security which previously fell variously on the ROC, CIC, BNM, Panel on Take-overs and Mergers (TOP), Foreign Investment Committee (FIC), Ministry of Trade and Industry (MITI), and Kuala Lumpur Stock Exchange (KLSE).

EPF Members’ Investment Scheme has increased unit trusts since 1996. Although the growth of funds has moderated since the financial crisis of 1997-98, the number of units in circulation and unitholders has still maintained its upward trend. Since the Capital Market Master Plan was introduced, an even greater various new investment product innovation and deregulation such as capital guaranteed funds, ethical funds and REIT funds have been introduced to the market. Following the liberalization of foreign exchange control in April 2005, the unit trust management companies are allowed to offer offshore investments. The industry experienced an
average 25.87% growth in the number of approved funds for past 6 years since year 2006. The NAV of all the unit trusts in Malaysia accounts for 14.35 percent of the total share market capitalization in 2006 (Dealing in Unit Trusts. 2005).

**Figure 1.1** Numbers of Management Companies and Approved Funds

**Figure 1.2** Total NAV (RM billion) against Market Capitalization
Figure 1.3   Public Mutual NAV against Market NAV


Figure 1.4   Market Share of Private Unit Trust Industry as at 31 May 2006

(Source: Lipper Fund Table, The Edge, 12 June 2006)
1.3 Type of Unit Trust

There are two types of unit trust: opened-ended funds and closed-ended funds.

1.3.1 Opened-Ended Funds

Open ended funds do not have fixed number of units, so supply and demand does not affect the price of the units; it simply dictates the size of the unit. It issues and redeems shares on demand. Existing units can be sold or realised (redeemed) at the NAV. The redeemed shares are then cancelled. The fund size can contract or expand. Therefore, selling shares decreases the overall pool of assets while buying into an open ended fund increases the pool of assets.

1.3.2 Closed-ended Funds

Closed-ended funds issue a certain number of shares during an offering, the number of shares outstanding does not change. Shares cannot be redeemed but can be traded through the stock exchange. No shares are being issued after the fund is launched. The price that would receive is dependent upon the demand and supply for that particular fund and not determined by the total value of the assets it hold. An existing investor in a closed-ended fund is usually required to sell his or her interests through a secondary market. It commonly invests in illiquid assets such as real property. The funds have a fixed fund size as the purchase or the sale of closed end funds does not offer the pool of assets.
1.4 Classification of Funds

The three traditional products of unit trust in Malaysia are growth funds, income funds and balance funds.

1.4.1 Growth Funds

This type of funds has capital gains as their primary objective over current income. Majority of the NAV of the fund will be invested in company shares which have good potential growth. This fund is suitable for very aggressive investors. It expects to pay a low annual distribution (if any) and concentrates on investing with a view to increasing the price of the units by focusing on growth assets such as shares and real property.

1.4.2 Income Funds

This type of fund is geared toward producing the highest income for an investor through either dividends or interest earned on the money. It emphasises income growth by investing in the securities which offer higher income returns. The investment priority is not in company shares but in the securities which pay fixed interests such as investing in the Malaysia Government Securities. This fund is a suitable choice for conservative investors.
1.4.3 Balanced Funds

This fund is a type of growth and income fund, but it specifically describes to investors the percentage of assets that it places in common stocks and the percentage placed in bonds. Its objective is to produce both income and growth for its investors. The managers will hold the investment portfolios in both fixed income securities and common stocks. It is popular as suitable for moderately aggressive investors.

1.5 Objective of Study

The purpose of this study is to provide empirical evidence in measuring and evaluating the risk and return of all the seven equity-based unit trust’s performance in Public Series of Funds. These series are under management of Public Mutual Berhad, which is the largest private fund management company in Malaysia in term of NAV.

The objectives are as follows:

a. To investigate the risk-adjusted return of Public Series of Funds’ performance.
b. To find the effective ranking with different measures.
c. To find out the aggregate or selection ability by fund managers.
d. To investigate whether the manager’s selection ability performance are affected by the chosen benchmark market and compare two benchmark in term of R-squared and find out which is more suitable to be proxied.
However, past results cannot predict future performance. The results of this study are not intended to be constructed as investment advice.

1.6 Scope of Study

The scope of this empirical study is to focus on the past performance of seven equity-based funds from Public Mutual Berhad in Public Series of Funds. The covered study period is five years, in total of 60 months, from January 2001 till December 2005, which is the conventional window as the beta may change. The characteristics of the funds are assumed to be unchanged throughout the evaluation period. The performance which is being evaluated here is month-end NAV performance of the pure fund of which management fees, transactions costs and dividends are excluded.

Performance can be defined in a variety of ways. This study, focus on unconditional measurements, includes Treynor Ratio, Sharpe Ratio and Adjusted Sharpe Ratio, Besides, Jensen’s Alpha is also being accomplished which greatly affects the performance of unit-trust to examine managers’ securities selectivity ability. This study intends in testing the skills of the fund manager, rather than assessing persistence from the investor’s perspective.

Choosing appropriate benchmark is important in measuring the investment performance. In this study, both Kuala Lumpur Composite Index (KLCI) (formerly known as the Kuala Lumpur Stock Exchange (KLSE)) and EMAS (Exchange Main Board All-Share) Index are chosen as benchmark portfolio.
CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Unit trust performance has received considerable attention worldwide, including Malaysia. Numerous studies have covered varieties of period. The academic literature on the measurement of managed fund performance can be traced back 40 years ago. During 1960s, research on unit trust became the subject of intense academic inquiry, following the increasing importance of this intermediate financial market. Measures based on raw returns are imperfect. Since the objective of portfolio management is to derive rates of return that equal or exceed the returns on a selected portfolio with equal risk, most of the studies on unit trust usually examine the risk-adjusted returns performance, the manager’s selectivity ability or a manager’s timing ability. All investments involve risk. Scholars also seek compelling evidence to show that the markets were efficient, that past performance could not serve as a reliable guide to future results, and that the only way a fund manager or individual investor could achieve higher returns would be to take on greater risk.
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The Edge. 2006. Lipper Fund Table. The Edge, 12 June.

