Macroeconomic Fundamentals and Unit Investment Trusts in Malaysia

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Abstract: In this paper, we examine the macroeconomic fundamentals towards the performance of various unit investment trusts issue by Amanah Saham Nasional Berhad (ASNB) of Perbadanan Nasional Berhad (PNB), the largest unit trust management company in Malaysia. Using panel data method for six different unit investment trust products for the period from 2005 to 2009, the results indicate significant influence of macroeconomic fundamentals on all of the net asset value (NAV) returns. The results concur with previous studies even though the types of unit investment trusts/funds used are different. The results suggest similar characteristics amongst many different unit investment trusts/funds traded in the market.

Key words: Unit investment trusts • Performance • Macroeconomic fundamentals • Amanah Saham Nasional Berhad (ASNB).

INTRODUCTION

The development of unit investment trusts and funds during early 80s and 90s in Malaysia has allowed for empirical investigations of wider issues in the financial markets. It is quite a new phenomenon among Malaysian who lacks fundamental knowledge of investment strategies to invest their money in a low risk investment tools with a competitive rate of returns such as unit investment trusts or mutual funds. Unit trust investment is simple, more convenient and less time consuming method of investing in securities than direct investment. It is managed by professional fund managers which are highly qualified and experienced in investments. Moreover, they monitored the market trends day-by-day. Thus, the possibility of failure is quite minimal.

Many institutions either public or private are specially set up to pooled together the capital contributions of these investors into legally formed trust funds and then invest them into a portfolio of marketable. The incomes that are derived from the fund invested are distributed by way of dividends, interests and capital gains are shared among the unit holders in proportion to their investments.

One of the types of unit investment trust that has been introduced in Malaysia is the ASNB open-end fund and will be the subject of the present study. The fund is quite convenient since the owner of these funds can sell back the shares to the company at anytime they want. Moreover, the number of units can be increased by the manager to meet the market demand. Price of unit is based on its Net Asset Value (NAV) and investor can buys and sells their unit trusts based on daily price of NAV. Thus, the capitalization of the Open-end fund is continuously changing.

Overview of Permodalan Nasional Berhad: Permodalan Nasional Berhad (PNB) is Malaysia's biggest fund management company and it is the parent company for Amanah Saham Nasional Berhad (ASNB) which operates a number of unit trust schemes and is a wholly owned subsidiary of Yayasan Pelaburan Bumiputra. This company is an investment holding company currently managing funds worth more than RM100 billion. It has substantial interest in over 330 listed and unlisted companies including blue chips firms such as Sime Darby Berhad and May Bank Berhad and other industry leaders like Island and Peninsular Berhad, UMW Holdings Berhad, NCB Holdings Berhad and Chemical Company of Malaysia Berhad. All its holdings are spread across many sectors of the country encompassing finance, banking, plantations, properties, automobile, logistic, pharmaceutical, petrochemical and manufacturing. PNB is conceived as an important instrument of the Government's Economic Policy to promote share ownership in the corporate sector among
the Bumiputera (the indigenous). Prior to the establishment of PNB, shares allocated to individuals are seldom retained.

**Literature Review:** Bailey and Lim [1] find strong correlation between country funds and national stock market. Their finding is supported by Ben-Zion et al. [2] who indicate that there is a bi-directional causal relation between funds and their national stock markets. However they failed to find causal relation between country funds with the US market.

Goetzmann et al. [3] suggest that there is a strong connection between the movement of SandP 500 and demand for index fund in the same trading day. This finding is in line with the finding of Mosebach and Najand [4] who indicate that equity fund directly affect the stock market. While other funds like bond and money market can only affect the stock market indirectly. Moreover, they conclude that bidirectional causality exist between net flow of funds and SandP 500. Matallin and Nieto [5] indicate that eleven out of thirty five funds are cointegrated with IBEX 35 Stock Exchange index. However, they do not specifically identify what type of funds that have cointegrated with the stock exchange index. Thus, they suggest that same patterns observed in the index funds are likely to reappear in other equity funds.

The cointegration tests run by Ben-Zion et al. [2] show that country funds and national stock prices are not cointegrated. In their study, they use daily closing prices of three country funds traded in the New York Stock Exchange (Germany, Japan and UK Funds). Their findings suggest that national market is cointegrated with US market.

With regard to the relationship between inflation and equity returns, many studies shows negative effect, Geske and Roll [3], Chen, Roll and Ross [6], Mukherjee and Naka [7] and Marshall [8]. However, Ibrahim [9] finding is contradicted with the above. He finds that KLCI is positively related to CPI (inflation). While study by Dritsaki [10] on causality between Athens Stock Exchange and inflation rate and shows unidirectional relationship that run from inflation to exchange.

In the meantime, there are also few studies on the relationship between equity returns and economic variables. Domian, Gilster and Louton [11] for example, find that a decreased in interest rates contribute to twelve months of excess stock returns. Similar findings report by Bulmash et al. [12] who show that higher interest rates have negative direct impact on stock return. Bae [13] also find that interest rate changes have significant affect on stock returns.. However, Pugh [14] shows otherwise. He finds that increase in interest rates show a little affect on the stock returns.

A study by Nasseh and Strauss [15] show that cointegration exists between stock price, industrial production, interest rates and foreign stock prices. They also indicate that there is a long-run relationship between stock prices and interest rates, consumer prices, real domestic macroeconomics innovations and international activity. Similar study by Abdullah and Hayworth [16] find that budget deficit, interest rates and money growth Granger cause stock prices.

However, the abovementioned studies do not specifically test the open-end fund unit trust. In fact, most of the studies in the develop countries use different types of unit trust funds such as index fund which may behave differently from the open-end fund.

In the present study, the economic fundamentals towards the performance of various unit investment trusts issue by, Amanah Saham Nasional Berhad (ASNB) of PNB, the largest unit trust management company in Malaysia, are examined.

The remainder of the paper is as follows. Section 2 reviews the related literature. Section 3 discusses the data and methodology. Section 4 presents the results while section 5 concludes the paper.

**MATERIALS AND METHODS**

**Data:** The data used in this study consist of 6 unit investment trust products over the period from 2005 to 2009. They are open-end fund and are obtained from Amanah Saham Nasional Berhad (ASNB) of Permodalan Nasional Berhad, (PNB) financial report. The six unit investment trusts are the daily NAV and the prices varies based on market force, i.e. demand and supply. They are 1). Amanah Saham Nasional, 2). Amanah Saham Nasional 2, 3). Amanah Saham Nasional 3 Imbang, 4). Amanah Saham Gemilang - Pendidikan, 5). Amanah Saham Gemilang - Kesiatan and 6). Amanah Saham Gemilang – Persaraan. On the other hand, data on Consumer Price Index as well as Gross Domestic Product, Base Lending Rate are obtained from Bank Negara Malaysia website while Kuala Lumpur Composite Index is obtained from Bursa Malaysia website.

**Panel Data Model:** The present study applies the panel data technique which, are known to be powerful research tools. The panel data model specify in this study is of the following structure:
Table 1: Descriptive statistic

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>OBS</th>
<th>MEAN</th>
<th>STD.DEV.</th>
<th>MIN</th>
<th>MAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>RETRUN</td>
<td>30</td>
<td>6.188333</td>
<td>0.8270933</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>CPI</td>
<td>30</td>
<td>109.094</td>
<td>2.575606</td>
<td>105.58</td>
<td>112.08</td>
</tr>
<tr>
<td>KLCI</td>
<td>30</td>
<td>1083.426</td>
<td>149.6488</td>
<td>900.68</td>
<td>1324.65</td>
</tr>
<tr>
<td>GDP</td>
<td>30</td>
<td>0.074</td>
<td>0.0216429</td>
<td>0.044</td>
<td>0.109</td>
</tr>
<tr>
<td>BLR</td>
<td>30</td>
<td>0.0636</td>
<td>0.0049834</td>
<td>0.0555</td>
<td>0.0675</td>
</tr>
</tbody>
</table>

Table 2: Correlation coefficient

<table>
<thead>
<tr>
<th></th>
<th>RETRUN</th>
<th>CPI</th>
<th>KLCI</th>
<th>GDP</th>
<th>BLR</th>
</tr>
</thead>
<tbody>
<tr>
<td>RETRUN</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPI</td>
<td>-0.2651</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KLCI</td>
<td>0.0529</td>
<td>0.5225</td>
<td>1.0000</td>
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<td></td>
</tr>
<tr>
<td>GDP</td>
<td>0.3544</td>
<td>-0.2097</td>
<td>0.6420</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>BLR</td>
<td>0.3387</td>
<td>-0.1942</td>
<td>0.3300</td>
<td>0.8376</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Table 3: Results of random effects

Breush and Pagan Lagrangian multiplier test for random effects

\[ \text{y}_{it} = \alpha_{i} + \beta X_{it} + \epsilon_{it} \]

Table 4: Result of fixed test

|           | Coef. | Std. Err. | t     | Pr(>|t|) | [95% Conf. Interval] |
|-----------|-------|-----------|-------|---------|---------------------|
| RETRUN    |       |           |       |         |                     |
| CPI       |       |           |       |         |                     |
| KLCI      |       |           |       |         |                     |
| GDP       |       |           |       |         |                     |
| BLR       |       |           |       |         |                     |

\[ \text{y}_{it} = \sum_{j=1}^{N} \alpha_{ij} d_{ij} + x_{it} \beta + \epsilon_{it} \]

where

\[ d_{ij} = \begin{cases} 1 & \text{if } i = j \\ 0 & \text{otherwise} \end{cases} \]

Which are used to capture the individual effects (either fixed or random). \( y_{it} \) is the dependent variable stock returns and \( X_{it} \) represents the consumer price index, composite index, gross domestic product and interest rates, where \( i = 1,2,\ldots,6, \ t = 1,2,\ldots,5. \)

Table 1 reports descriptive statistic of returns for the unit investment trusts, CPI, KLCI, GDP and BLR while Table 2 shows the correlation coefficient between variables.

**Empirical Results:** The Breusch Pagan Lagrangian Multiplier test for random effects is used to compare the result with Ordinary Least Square (OLS) method in order to choose the appropriate model. From the result shown in Table 3, the study chooses random panel data using Generalised Least Square (GLS) as oppose to pooled OLS model (since the \( p \)-value is less than 0.05).

**Fixed Effects Versus Random Effects:** In testing between fixed effect and random effects, the study employs the Hauseman specification technique. The test statistics is asymptotically \( \chi^2 \) distributed with degree of freedom 3, strongly rejecting the null hypothesis of random effects. Hence, the fixed model is used and the estimation results are reported in Table 4.

Table 4 reports a significant positive impact at a usual 5% level of CPI and GDP on unit investment trust returns. As for KLCI and BLR, the results show the opposite. Overall, using panel data method, the results exhibit similar sign (positive/negative) with those of Goetzmann et al. [17] and Bailey and Lim [1].

**CONCLUSIONS**

Over the years, unit investment trusts in Malaysia has attracted many since its returns are quite attractive particularly if it is government owned trust. Following the rising demand, of late more unit investment trusts have been introduced in the market to cater for different group of investors. For customer, who lacks necessary investment knowledge, it is quite reasonable for them to invest their funds indirectly through unit investment trusts since they are managed by professional. The basic principle of unit investment trusts is to let professional manage your fund.

This paper aim is to the macroeconomics fundamental towards the performance of various unit investment trusts using panel data method. The data derive from 6 different unit trust issued by PNB, the government investment arm. The dependent variable is unit trust return proxies by NAV while the independent variables are GDP, KLCI, BLR and CPI. Base on the result of panel data fixed effect
model, the CPI and GDP are positively related to unit trust return, suggesting economic growth will lead to increase in value of unit investment trusts. As for CPI, as the index goes up, more people invest in unit trust compared to other investment since it is less risky.

With regard to BLR and KLCI, the results show significant negative effect on unit investment trusts. Similar with CPI, the higher the BLR, more people will look into less risky investment such as unit investment trusts compared to other investment tools. For KLCI, most of the unit trust funds come from investment in equity market. As such increase in KLCI returns will have positive effect on the unit investment trusts.

In conclusion, the results of the present study find evidence which concur with previous study even though the types of unit investment trusts used are different. However, the results of should be analysed with extra care since the sample are taken from only one unit investment trusts institution which is PNB.

REFERENCES