THE COMPARISON OF PERFORMANCE OF ISLAMIC AND CONVENTIONAL UNIT TRUST FUNDS IN MALAYSIA

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ABSTRACT

This research reports on the findings of a study that examined the performance of Islamic unit trust funds in comparison with the conventional trust funds in Malaysia. The objectives of the study were to compare the nature and characteristics of both funds, assess their risks and returns profiles, measure the degree of diversification and compare the consistency of performance ranking. The performance of both funds was analyzed over a period of 36 months commencing from February 2000 to January 2003 and evaluated based on the standard performance measures for funds known as Adjusted Sharpe, Treynor and Adjusted Jensen Alpha Indices. The composite index of the Kuala Lumpur Stock Exchange (KLSE) represented the market benchmark for the conventional funds while the Islamic funds used Syariah index as proxy for the market. The findings revealed that on average, the Islamic funds failed to outperform the performance of conventional fund. However, the Islamic funds seemed to have lower risks than the conventional funds. Even so, the independent sample t-test results showed that there was no significant difference in the means performance of both funds.

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1.0 INRODUCTION

A unit trust is an investment scheme that pools money from many investors who share similar financial objectives, investment strategy and risk tolerance (Choong, 1970). The pooled money will then be invested in a diversified portfolio of authorized investments by a professionally managed organization on behalf of the unit trust's investors. An independent trustee is appointed to oversee the management of unitholders' money. Thus, the rights and interest of investors in unit trust are safeguarded. The unit trusts are also called 'open-ends' funds as the unitholders can redeem or sell back their shares through the fund management company at the prevailing buying price or current market values. Unit trust fund is an affordable avenue for investors to achieve a reasonable level of diversification. With the introduction of sector funds in Malaysia since 1959[1], investors are offered an alternative in making investment decisions.

Unit trust also plays a very important role in Malaysian capital market. They are among the major players in the market and believed to have the influencing power to attract small investors to capital market (Leong, 1997). It is more appealing and provides a wider investment base for small investors. Consequently, this has created intense competition among the unit trust fund management companies in the unit trust industries. As such, more innovative unit trust products have been developed and introduced in order to attract potential investors.

In view of the growing demand from Islamic investors, the Islamic unit trust funds were introduced in the mid 1990's. Tabung Amanah Bakti, launched in May 1971, was the pioneer of Islamic unit trust with Asia Unit Trust Berhad as its fund manager. Over the years, despite the volatile market, the Islamic funds managed to grow 102% from a small base of RM 834 million in 1995 to RM1.6 billion in 2000 (Smart Investors, May 2002). As at September 30th, 1998, there were thirteen Islamic unit trusts in operation. This figure has increased to twenty in June 2002 and thirty four in February 2003 comprising mostly of equity funds and several bond funds (The Edge, February 24th, 2003).

[1] The history of trust funds in Malaysia dated back to the establishment of the Malayan Unit Trust Limited in 1959 (Banker's Journal Malaysia, February- March, 1995).

1.1 OBJECTIVE OF THE STUDY

Unit trust industry has been the subject of study by many researchers in the past. In Malaysia, studies in the industry has started in the 1990s such as Mohamed and Mohd Nasir (1995), Tan (1995), Kok and Khoo (1995), Leong (1997), Leong and Aw (1997) and Mohd Nawawi et. al., (1999). These studies focused on the performance of conventional unit trust funds in comparison with the stock market performance. The studies on the Islamic unit trust conducted by Arbi (1999) and followed by Shariff (2002) have provided some insight into the performance of Islamic unit trust industry in Malaysia.

This study aims to evaluate the performance of Islamic unit trust in comparison with the conventional unit trust industry in Malaysia. The performance of both Islamic and conventional unit trusts will then be analyzed over 36-month period commencing February 2000 to January 2003 and evaluated based on the standard performance measures known as Adjusted Sharpe's, Treynor's and Adjusted Jensen's indices. The evaluation is, therefore, to determine whether the Islamic funds are able to outperform the conventional funds during the period under study.

Specifically, the objectives of the study are to compare the nature and characteristics of Islamic and conventional unit trust in Malaysia, to assess the risk and return profiles of Islamic unit trust in comparison with the conventional unit trust, to measure the degree of diversification of Islamic unit trust as compared to the conventional unit trust and to compare the consistency of performance of both types of unit trusts funds.

1.2 CONVENTIONAL AND ISLAMIC UNIT TRUSTS

1.2.1 CONVENTIONAL UNIT TRUSTS

Based on the Guidelines on Unit Trust Funds issued by the Securities Commission in October 1991, a unit trust fund company can only invest in authorized Malaysian assets, which include listed and unlisted securities of Malaysian companies, Malaysian Government Securities, Cagamas bonds, bankers' acceptances, Negotiable Certificates of Deposits, Government Investment Certificates and cash (Banker's Journal Malaysia, 1995). However, in March 1994, the Commission has provided a provision by which trust funds can invest (10% of portfolio) in overseas stock. Hence, conventional unit trust funds can invest in any of the above Malaysian assets without any restriction as long as the funds have not reached its maximum approved size.

1.2.2 ISLAMIC UNIT TRUSTS

The Islamic unit trusts mainly focus on the investments in portfolios of 'halal' stocks and bonds complying with the Syariah principles. Such 'halal' stocks exclude companies involving in activities, products or services related to conventional banking, insurance and financial services, gambling, alcoholic beverages and non-halal food products and also companies whose products can cause illness, death, disease or even promote social ills such as tobacco. From an Islamic perspective, the above industries are avoided as they represent elements that are forbidden by Allah and the harmful effects of such products on mankind (Smart Investor, 2002). The returns of Islamic unit trusts also avoid the incidence of '*riba*' or usury interest through the process of cleaning or purification by the removal of such amounts representing the interest element. In instances where a fund has inadvertently made profits investing in non-permissible sectors, the fund will liquidate the investments. The proceeds of the gain will then be donated to charities.

Mohd Nasir (2000) mentioned in his paper that the Syariah principle of '*musharakah*' acts as a base for Islamic unit trust whereby it is a participatory financing involving agreement between the contributor of capital and the user. Therefore, the providers of funds or partners are the unitholders in an Islamic unit trust. A formal contract between the unitholders, capital or fund, profit, the offer, the acceptance and the investment activities are also available within the practice of the Islamic unit trust.

The concept of '*al-wadiah yad dhamanah*' or guaranteed safe custody is involved in the operation of the Islamic unit trust fund. Prior to the funds existence, the owners of assets are the investors, custodian holder is the fund manager, and asset is the money invested. After the creation of the fund, the owners of assets are the unit holders, the custodian is the trustee and the assets include all assets of the fund. Besides that, the concept of '*al-bai'bithamin ajil*' is also practiced in the Islamic unit trust whereby there is a transaction of buying and redemption of units of funds. In this case, the purchase or redemption price is the managers forward selling or buying price at the next valuation point when investors decide to buy or unitholders decide to redeem their shares. Moreover, the valuation point is the price at the close of business for the day. Nonetheless, based on '*al-wakalah principle*', the price must be determined at the time the contract of sale or purchase is executed. As a result, the current practice of Islamic unit trust does not conform to the *'al-wakalah'* principle. Thus, it has been suggested that daily historical price would be more appropriate in order to observe the Syariah principles (Shariff, 2002).

Apart from having the same standard criteria for other conventional unit trusts as explained in the Securities Commission's Guidelines on Unit Trust Funds (1997), the Islamic unit

trust funds must also meet the criteria as advised by the Securities Commission's Syariah Advisory Council (SAC)[2]. For example, the Islamic unit trust funds can only invest in securities approved by the SAC. The trust funds are also required to appoint a Syariah committee or syariah consultant who must be approved by the Commission. As at October 25th, 2002, the SAC has approved 684 securities [543 approved securities as at January 2nd, 1999 (Arbi, 1999)] listed on the KLSE and classified them as '*halal*' stocks thus can be bought by the Islamic trust fund managers.

2.0 LITERETURE RIVIEW

2.1 STUDIES IN THE WEST

The early research on unit trust funds was initiated by Friend et. al. (1962), done on 152 U.S mutual funds for the period 1953 to 1958 with Standard & Poor indices of five securities as a benchmark. The findings indicated that the mutual funds earned average annual returns (unadjusted risk) lower than the composite benchmark. Similarly, Sharpe (1966) had conducted a study on 34 open-end mutual funds in the U.S during the period of 1954 to 1963 and showed that the Sharpe ratio for his sample was lower than the DJIA over the same period. His result was later tested and confirmed by Ippolito (1993) as statistically significant. Sharpe also found that the size of funds per se was not important in predicting future performance and good performance was associated with lower expense ratio.

Treynor and Mazuy (1966) studied on 57 mutual funds in U.S for the period of 1958 to 1962 and found a similar result as the study of Sharpe (1966) that on average the mutual funds could not outperform the market. Jensen (1968) studied 115 open-end mutual funds in U.S during longer period of 1945 to 1964 and used the Standard & Poor's index of 5000 stocks as proxy for the market portfolio. He developed a performance measure called Jensen's Alpha to evaluate portfolio manager's predictive ability of security prices. Based on this study, he discovered that on average, fund managers were unable to consistently predict share prices as compared to buy and hold strategy, thus reaffirmed the findings of Sharpe's and Treynor's.

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[2] The SAC was established in May 1996 with the objective of advising the Commission on Syariah pertaining to the Islamic Capital Market (ICM). The Islamic Capital Market refers to the market where the activities are carried out in line with syariah principles, that do not contradict with the conscience of Muslims and the religion of Islam. In other word, it is the capital market that should be free from the involvement of forbidden activities by Islam such as usury (*riba*), gambling (*maisir*) and ambiguity (*gharar*).

Moles and Taylor (1977) further supported the results of Sharpe's. They conducted a risk-return analysis on 86 funds in U.S covering from 1966 to 1975 and their findings yielded that in most cases, the performance variables of the funds such as number of shares and the size of funds had weak predictive power for the funds' performance in the subsequent periods. However, there was a contradictory study by Friend et. al.(1970) which replicated Sharpe's study with the inclusion of beta concept during the period of 1960 to 1968. This study revealed that the average return of the sample was higher than the market portfolio. Ippolito (1993) also found a different result when reviewing and comparing statistical studies on mutual funds performance for the period of 1962 to 1991. His study discovered that mutual funds showed a better performance compared to market indices. Furthermore, he also found that mutual funds returns are consistent with the funds' risk-adjusted performance exclusive of expenses and its performance is similar to that of the index portfolio. The results supported his previous study in 1989 that reported on the performance of 143 funds in the U.S over the period of 1965 to 1984. The result showed that mutual funds with higher turnover fees and expenses, earned rates of return sufficiently high to offset the higher charges.

In the U.K, Firth (1977) analyzed the performance of 72 unit trusts for the period of 1965 to 1975. The outcome showed that, on average, managers of unit trusts in the U.K have not been able to forecast share prices accurately enough to outperform a simple buy and hold policy. Bal and Leger (1996) further analyzed the performance of 92 U.K investment trusts over the period 1975 to 1993 using the Sharpe (1966), Treynor (1965) and Jensen (1968) measures of portfolio performance. The results of the study showed that the unadjusted funds performance as a whole outperformed the market. Fletcher (1999) examined the performance of 85 U.K unit trusts with North American investment objectives between January 1985 and December 1996. The study concluded that there was no evidence that U.K and North American unit trusts on average or individually generate significant abnormal returns. They also found that there was no relationship between the charges of the trusts and abnormal performance. Thus, it was suggested that U.K trusts managers exhibited similar performance skills to U.S mutual funds managers.

2.2 STUDIES IN SINGAPORE

Koh and Koh (1987) conducted a study on 19 unit trusts from January 1980 to December 1984 with the Stock Exchange of Singapore (SES) All Share Index as the proxy for the market portfolio. The results of their study revealed that the returns and risks characteristics of the funds were not fully consistent with their stated objectives. They also discovered that the trusts

performance was not consistent over time and they were unable to outperform the market and the funds did not achieve a high degree of diversification.

Koh, Phoon and Tan (1989) studied the performance of four investments funds listed on the Stock Exchange of Singapore, from January 1979 to December 1987, by comparing against the market portfolio proxied by SES Index. By using Sharpe ratio, Treynor Index and the Jensen alpha to measure the funds performance, they concluded that three out of four unit trusts outperformed the market portfolio even though all of the trusts bear systematic risk close to that of the market portfolio. They also discovered that there were no significant difference in performance between least aggressive unit trusts and the more aggressive unit trusts.

Koh and Kee (1990) studied on some aspects of the performance of unit trusts in Singapore for the period 1980 to 1984 and concluded the unit trusts in Singapore underperformed the market, poorly diversified and recorded inconsistent performance over time. Lee (1993) studied the performance of 21 unit trust funds during the period of January 1986 to December 1990, revealed that all the unit trust funds examined generally underperformed the market. However, their risk profile seemed quite stable during the period under study even though there was lack of consistency in the performance and the ranking of the funds. The systematic risks and the degree of diversification of the funds were found lower than that of the market. Therefore, the author concluded that, the past performance of the funds may not be indicative of future performance though their risk profile was not expected to change drastically.

2.4 STUDIES IN MALAYSIA

Mohamed and Mohd Nasir (1995) examined 54 unit trust funds, nine of which were managed by two foreign management companies for a five-year period from January 1988 to December 1992. The sample was further classified based on the type of funds and separated into Malaysian and Foreign managed funds. The main objective of their study was to assess whether investors in unit trusts are gaining benefits from their investments. The results of the study showed that growth funds had highest returns per unit of risk measured in term of standard deviation whereas, the balanced funds ranked highest in term of the risk per unit of return. Income funds yielded lower returns and risks than the balanced funds. As such, the authors implied the risk and return profile of the total sample were inconsistent with their stated objectives. They also found that none of the trust funds achieved an acceptable level of diversification. In addition, based on their findings, they suggested that the unit trusts were not

able to generate an expected reasonable risk-adjusted return regardless of their reliance on professional fund managers.

Leong and Aw (1997) studied the performance and ranking of 32 private unit trusts using different market portfolio as benchmarks, the KLCI and the Kuala Lumpur Emas Index (EMAS) during the period from January 1984 to December 1996. The results of the study indicated that the returns of the sample trust portfolios were more sensitive to changes in the returns of the KLCI based on higher beta calculated when using KLCI as the benchmark. However, the EMAS benchmark formed a higher R –square than the KLCI, hence were more diversified. It could be a more suitable benchmark for measuring performance of the sample of unit trusts. It was also found that the sample portfolio was not able to outperform the market portfolio of KLCI based on mean monthly returns and the risk adjusted performance measures. However, when using EMAS index, the risk adjusted performance measures of the sample portfolio was superior to the market portfolio. Therefore, they concluded that the risk adjusted performance measures can be inverted using different benchmark portfolios. Thus, choice of benchmark is significant in measuring the performance of unit trust funds.

Leong (1997) examined the performance of 13 unit trusts in Malaysia from January 1992 to December 1996 using KLCI as market's proxy within the framework of APT and CAPM. The research also attempted to evaluate the trusts' performance before and after 19th March 1994 when Securities Commission announced the new guidelines and regulations for unit trusts after the stock market crash in 1993. Under the CAPM framework, the author used the funds performance measures such as Adjusted Sharpe Index, Adjusted Jensen Alpha and Treynor Index. The findings indicated that during the first sub-period and the full period, most of the unit trusts were superior to the market as compared to second sub-period. They concluded that the bull market drive in the year 1993 caused most of the local capital assets to perform exceptionally well. Whereas, the announcement of new guidelines and regulations for unit trusts and the bear capital market conditions which commenced at the end of year 1993 could be the reason that not many unit trusts could beat the market portfolio.

Mohd Nawawi et. al (1999) evaluated the performance of local unit trust industry over an eleven year period (1984–1994). This study focused on the performance of unit trusts in comparison with unmanaged portfolios consisting common stocks and evaluation of the management style in relation to governance, personality, role, economic consideration and controlling factors. Empirical evidence from the study of price changes showed that in general, unit trusts funds could not outperform the market. However, they found some trends that in

bullish condition, performance of unit trusts could not beat the market but in bearish conditions, most of the funds experience lower losses than the market. This result seemed to contradict the result of Leong (1997) previously discussed.

The area of Islamic unit trusts performance has been studied by Arbi (1999) who analyzed the performance and ranking of unit trusts funds in Malaysia for six and a half years period commencing from January 1992 to June 1998. Using a sample of nine Islamic unit trust funds with the RHB Islamic Index as market portfolio, the author further investigated on the consistency of funds performance, degree of risk diversification, the ability of fund managers to predict security prices and whether the economic crisis in 1997 had affected the trusts performance. The results of the study revealed that almost all of the funds under review were less risky than the market portfolio and quite well diversified. However, on average, the overall Islamic unit trust funds were unable to outperform the market portfolio as the performance measures of Adjusted Sharpe Index, Treynor Index and Adjusted Jensen's Alpha were all negatively higher than the market portfolio. The research also indicated that about half of the Islamic trust funds performed better than the market portfolio before the market crash from July 1996 to June 1997 but only under the Adjusted Sharpe Index. However, during the crisis, most of the funds were greatly affected, thus, were not able to outperform the market portfolio.

The most recent study on the financial performance of Islamic unit trust funds in Malaysia was done by Shariff (2002). The study evaluated 14 Islamic trust funds over the period of February 1999 to January 2002 and the performance of the funds was compared to market index of KLCI. The period was further divided into a short-term period of 12 months, medium term period of 24 months and a long-term period of 36 months. The research investigated further the nature and characteristics of Islamic unit trusts in addition to assessing the return and risk profiles of the funds. The results of this study showed that the monthly returns of all the funds were 'losers' since they were unable to outperform the market and risk-free returns in both the short-term and long-term periods. Contrastingly, the risk adjusted returns of majority of the funds portrayed superior performance in comparison to the market which was inconsistent with most prior studies in Malaysia and worldwide. This result supported the study of Mohd Nawawi et.al. (1999) who concluded that the conventional unit trusts performance were superior in bearish periods. As such, the period of this study was also said as experiencing a bearish market condition. However, during the short-term period, the Islamic trust funds showed an inferior performance which could possibly due to the market condition in 1999 being just beginning to recover from the financial crisis of 1997-1998. Apart from that, it was also found that all the

Islamic funds have achieved a low degree of diversification compared to the market in all periods. The author further concluded that the funds' performance ranking was not persistent over the period under study. Nonetheless, the risk profiles were apparently steady since the portfolios have exhibited superior performance in the long run. This maybe the result of ethical screening of Syariah approved portfolios that may have impacted the Syariah based trust funds. This result also acknowledged the study of Arbi (1999) who found that on average the Islamic funds are less risky than the market portfolio.

In conclusion, the results conveyed from prior researches on the unit trust funds performance are inconsistent. Most of conventional funds under review in the West, Singapore and Malaysia were not able to outperform the market. Nevertheless, the conventional and Islamic funds tend to outperform the market in bearish periods but underperformed in bullish periods as perceived by both Mohd Nawawi et. al. (1999) and Shariff (2002).

3.0 RESEARCH AND METHODOLOGY

3.1 SELECTION OF SAMPLE FUNDS

As at 31st December 2002, there were 39 fund management companies managing 188[3] approved unit trust funds in Malaysia. The net assets value of unit trust funds under management has increased from RM47.3 billion as at the end of 2001 to RM53.7 billion as at the end of 2002. The net assets value in 2002 formed 11.15% of the market capitalization of the KLSE compared to 10.18% in 2001. However, for the purpose of this study, a sample of 12 Islamic (out of 34) and 77 conventional (out of 126) unit trust funds were taken from the Standard & Poor's Fund Services (S&P) Fund Table (The Edge, February 24th, 2003). Thus, the sample size was about 35% of Syariah funds and 61% of conventional funds. Since the period of this study covers from February 2000 to January 2003, all funds selection were based on funds that have existed prior to February 2000 and still in operation as at January 31st, 2003. Therefore, the funds that were newly launched or did not have sufficient monthly data are excluded. Thus, the recent 3 year period of unit trusts performance can be ascertained.

[3] The figures includes funds approved by the Securities Commission but not yet launched (The Star, March 29th , 2003)

3.2 DATA COLLECTION

Secondary data were used for this study and fund managers' selling prices, KLSE composite index (KLCI), Syariah index (KLSI) and Bank Negara 3-month Treasury Bills over a period of 36 months from February 2000 to January 2003 were extracted. The sources of data include the daily quotations from the daily newspapers such as The Star, The New Strait Times and The Edge, reports from the Securities Commission, KLSE Daily Diary and the Bank Negara Malaysia Monthly Statistical Bulletin.

3.3 THEORETICAL MODEL

This study utilized the measurement of unit trusts portfolio performance based on the following theoretical models; Sharpe and Adjusted Sharpe Performance Model, Treynor Performance Model and Adjusted Jensen Performance Model. These models were used for evaluating and ranking of the unit trust funds in this study.

3.3.1 SHARPE AND ADJUSTED SHARPE PERFORMANCE MODEL

The Sharpe Performance model was introduced by Sharpe (1966) which divides the funds excess returns (annual total returns minus risk free returns) by its standard deviation. This traditional Sharpe index measures the excess return per unit of total risk. Thus, the higher the index values of the portfolio, the more desirable the portfolio.

The traditional Sharpe index (SI) is calculated using the following equation:

SI = (Portfolio Return – Risk-Free Returns) / Std Deviation

$$= (R_j - R_f) / \sigma$$

Where ;

SI = 'reward to variability' as stated by Sharpe

R_j = average monthly return of portfolio 'j' over the evaluation period

R_f = average monthly risk-free rate of return, the return of government bonds with the same duration under study.

σ = standard deviation of the portfolio's returns

However, the Sharpe index was found to be biased by Miller and Gehr (1978) whereby the bias was found to be a function of the number of return intervals (NRI) in the evaluation period. The bias was corrected by Jobson and Korkie (1981) using the Adjusted Sharpe Index (ASI) as in equation below;

ASI = (SI x NRI) / (NRI + 0.75)

3.3.2 TREYNOR PERFORMANCE MODEL

This performance model or Treynor index is a risk adjusted measure of portfolio performance where risk is measured by beta. Beta is the measure of portfolio's risk in relation to the market. Therefore, the higher the index value of the portfolio, the more desirable is the portfolio. The equation is given as:

TI = (Portfolio Return – Risk Free Return) / Beta

$$= (R_j - R_f) / \beta_j$$

Where;

TI = the 'reward-to-volatility' ratio

R_j = the average return of portfolio 'j' over the evaluation period

R_f = average risk free interest rate of a government bond with the same duration under the study

β_j = a measure of the sensitivity / volatility of a portfolio 'j's return compared to the market index.

3.3.3 JENSEN AND ADJUSTED JENSEN PERFORMANCE MODEL

This performance model measures the size of abnormal return achieved by the portfolio where a positive alpha value indicates that the portfolio achieved higher return than the market portfolio with the same degree of risk. This performance analysis is to show the consistency of the return of the funds. The following formula will be used;

Jensen Index (JI)

$$\mathbf{JI = (R_j - R_f) - \beta_j (R_m - R_f)}$$

Where;

JI = intercept of Capital Asset Pricing Model after allowing for risk free rate of return

R_m = average return on the market index for the period under study

β_j = systematic risk of portfolio 'j'

However, because of different portfolios have different levels of systematic risk, Jensen Alpha cannot be used to rank performance of different assets. Thus, to adjust for systematic risk the Adjusted Jensen Alpha (AJA) is computed as given by:

$$\mathbf{AJA = JI / \beta_j}$$

Where;

β_j = systematic risk of portfolio 'j'

3.4 METHODOLOGY

The performance of Islamic and conventional unit trust funds in the sample is evaluated on a monthly basis for a 36-month period commencing February 2000 to January 2003. The period was further divided into Year 1 (February 2000 to January 2001), Year 2 (February 2001 to January 2002), Year 3 (February 2002 to January 2003) and 3 years period of February 2000 to January 2003. The division of period into 4 is to ascertain whether there is a difference in the funds performance based on short-term (yearly) and long-term (3 years) assessment.

3.4.1 RATE OF RETURN OF FUNDS AND MARKET

The rate of return on the unit trusts was calculated as follows:

$$\mathbf{R_{j,t} = (r_{j,t} - r_{j,t-1}) / r_{j,t-1}}$$

Where;

$R_{j,t}$ = the rate of return of unit trust 'j' for the month of 't'

$r_{j,t}$ = closing selling price in month 't' for unit trust 'j'

$r_{j,t}$ = closing selling price in month 't-1'for unit trust 'j'

The market returns for both KLCI and KLSI were estimated as follows;

$$R_m = (M_t - M_{t-1}) / M_{t-1}$$

Where;

R_m = return on market

M_t = last transaction index of the market in month 't'

M_{t-1} = last transaction index of the market in month 't-1'

3.4.3 FUNDS PERFORMANCE MEASUREMENT

The Adjusted Sharpe index, Treynor Index and Adjusted Jensen index were utilized in ascertaining the funds performance and ranking. The formulas as described in the theoretical models were used in obtaining the three indices for all the unit trusts as well as for the markets. The performance indices of the Islamic trust funds during the periods under study were compared against the Syariah index whilst the conventional funds indices were against the Composite index. The performance of both types of funds was also compared against each other. The 3-month Treasury Bills represented the risk free returns used in calculating the indices. The conventional and Islamic Funds were then ranked in order of their risk adjusted performance according to the three performance measures.

3.4.4 DEGREE OF RISK DIVERSIFICATION

The degree of diversification of conventional unit trust funds was determined by the Coefficient of Determination (R-square). It measures how much the total variance of the unit trust portfolio changes caused by the market portfolio. The market portfolio that has an R-square of 1.00 indicates perfect diversification while a low R-square value reflects lesser degree of diversification. It was computed by regressing the monthly return of funds (dependant variable) with the monthly return of the market portfolio (independent variable) estimated by KLCI for the conventional funds and KLSI for the Islamic funds.

3.4.5 CONSISTENCY OF PERFORMANCE RANKING

In determining the consistency of performance ranking of both types of funds during the periods under study as measured by the Adjusted Sharpe, Treynor and Adjusted Jensen indices,

the Spearman Rank Coefficient Correlation analysis was utilized. This measure was used by previous studies in measuring unit trusts performance consistency such as Lee (1993), Mohamed and Mohd Nasir (1995), Bal and Leger (1996), Leong and Aw (1997), Mohd Nawawi et. al. (1999) and Shariff (2002).

3.4.6 INDEPENDENT SAMPLE T- TEST

To test and estimates the difference between two unrelated sample means, the independent sample t-test is used (Keller and Warrack, 2000). Therefore, in this study, this test is used to measure if there is a significant difference between the means performance of Islamic funds and the conventional funds based on the three performance measures during the sub-periods and the whole period under study.

3.4.7 THE HYPOTHESES

The objective of the study is to compare the performance of Islamic trust funds and the conventional funds during the period under study. Thus, it can be expected that there may be no difference between the performances of both funds or one of them may outperform the other. Thus, the null hypothesis is as follows;

H_0 : There is no difference between the performance of Islamic and conventional funds during the periods under study.

4.0 FINDINGS AND DATA ANALYSIS

4.1 RETURNS AND RISKS PROFILES

Table 1 to 4 represents the summary of return and risk profile of Islamic and conventional unit trust funds. The average mean monthly returns for three periods comprising of 1st year period (February 2000 to January 2001), 2nd year period (February 2001 to January 2002) and 3rd year period (February 2002 to January 2003) were presented collectively with the summary of performance indicators of Adjusted Sharpe, Treynor and Adjusted Jensen Alpha indices. While the average beta, standard deviation and Coefficient of Determination (R-square) represent the risk profile as well as the degree of diversification of funds and market portfolios.

Table 1 below shows the summary of findings of Islamic and conventional trust funds for 12-month period from February 2000 to January 2001. The results show that the mean monthly returns of all the Islamic funds were below the average market returns as represented by the Syariah index and the average return of the risk-free treasury bills. Whereas, 16 or 21% of conventional trust funds were able to outperform the market average as gauged by the composite index of the KLSE. However, on average, the mean monthly returns of the conventional funds were also unable to perform better than that of the market and the average return of the risk-free treasury bills.

In term of dispersion of risk, the findings indicate that the average standard deviation of the Islamic funds (8.17%) was greater than the market (6.68%). Only 2 funds or 17% have standard deviation below the market. This entailed that the monthly returns of the funds have greater volatility than the market. On the other hand, 45% of the conventional funds have lower standard deviation than that of the market. The average standard deviation of conventional funds (6.32%) was slightly higher than the market (6.01%). This denoted the volatility of monthly returns of the funds was almost the same as the market portfolio. The influence of systematic risk on unit trust portfolio as implied by beta was also presented. The results show that on average, the beta value of Islamic funds was greater than the market of 1.0, whereas the conventional funds yielded lower beta value (0.79) than the market. However, on individual basis, 67% of Islamic funds and 73% of conventional funds have lower beta value than unity. The lower beta value indicated that most of funds under study were less risky than the market.

Based on the analysis of the three performance indicators, it was ascertained that when using Adjusted Sharpe Index, on average both Islamic and conventional trust funds were unable to outperform their respective markets. On the individual fund basis, 25% of the Islamic funds managed to perform better than the market whereas only 16% of conventional funds could do so. However, it is important to note that Sharpe index measures the total risks of the portfolio which includes systematic and unsystematic risks. The more precise performance measurement would be the Treynor and Adjusted Jensen index that measure only the systematic risk that is non-diversifiable. Thus, using Treynor and Adjusted Jensen indices, none of the Islamic funds were able to beat the market and the majority of the conventional funds showed indices below the market. Under both Treynor and Adjusted Jensen indices, only 10 conventional funds were able to show a positive indices whilst all of Islamic funds had negative performance indices. This result supports the findings of Shariff (2002) whereby the majority of Islamic funds under study had negative performance indices and failed to beat the market portfolio during the period of February 1999 to January 2000.

The degree of diversification of the Islamic and conventional trust funds portfolio is determined by the Coefficient of Determination (R-square) obtained through regression analysis. Theoretically the market portfolio has an R-square value of 1.00 and a fund with a high R-square is deemed to be highly diversified in its investment portfolio as the market is taken as a surrogate of a well diversified portfolio. Apparently, both the Islamic and conventional funds seemed to be not well diversified during the first year period under study since all the sample funds have R-square value of below unity. However, the Islamic funds were relatively more diversified than the conventional funds based on average R-square value that was higher than the conventional funds.

[Insert Table 1]

Table 2 below presents the profiles of Islamic and conventional trust funds during 2nd year period from February 2001 to January 2002. Comparing to previous period, both fund types were improving in term of average mean monthly performance. The conventional funds appeared to perform better than the Islamic funds since their mean monthly return outperformed the market return with 66% of its funds have greater mean value than the market. Nevertheless, the Islamic funds were still unable to beat the market since they still generated negative mean monthly return. Even so, both funds outperformed the risk-free returns of -0.5% during the period.

In term of funds volatility, both funds were less volatile than their respective markets as shown by the average standard deviation. However, the Islamic funds seemed to have lower average standard deviation than the conventional funds implying that the monthly returns of Islamic funds were less volatile when compared to conventional funds. Furthermore, the average beta values for both funds were below 1.0 of the market. Yet, the conventional funds achieved lower beta value indicating a low risk portfolio as compared to Islamic funds beta. In addition, the R-square values for both funds were almost equal (65.7%- Islamic and 61.92%-conventional) which seemed to be not well diversified. The table also shows that the average risk-adjusted performance of Adjusted Sharpe, Treynor and Adjusted Jensen Indices of both fund types were improving as compared to previous period. Both Islamic and conventional funds were able to outclass their respective markets based on the three indices. Nonetheless, the conventional funds appeared to achieve superior performance than the Islamic funds since more than 70% of its individual funds were able to beat the market in the three indices. However, for the Islamic funds, only 42% under the Adjusted Sharpe and 58% under the Treynor and Adjusted Jensen indices performed better than the market.

[Insert Table 2]

Table 3 presents the average risk and return profiles of Islamic and conventional trust funds for the period of February 2002 to January 2003. Based on the analysis, it could be observed that the average mean monthly returns for Islamic (-0.73%) and conventional funds (-0.61%) have fallen as compared to previous period of -0.14% (Islamic) and 0.18% (conventional). Both fund types, on average, were also found to be inferior to their respective markets and the risk-free treasury bills. However, on individual fund basis, 58% of Islamic funds and 64% of conventional funds were able to outperform their respective markets. The average standard deviation of Islamic funds (4.1%) was lower than its market (4.71%) showing that the funds have lower volatility of the monthly returns than the market portfolio. On the other hand, the conventional funds (5.56%) yielded slightly higher average of standard deviation than its market (4.98%). Moreover, it was found that both funds have almost equal average beta factor that were less than unity. Only 4% of conventional funds have larger beta values than the market while the rest of both funds' beta were below their respective markets. The degree of diversification of both funds portfolios as gauged by R-square was also found to be not well diversified even though Islamic funds value was higher than that of the conventional funds.

Based on the three performance yardsticks, the conventional funds have exhibited superior performance compared with their market as indicated by the positive values under the Treynor and Adjusted Jensen indices. The Islamic funds however, underperformed their market with more than half of the funds achieved below market average for the three indices. Thus, the Islamic funds were unable to beat the conventional funds performance during the third year period of this study.

[Insert Table 3]

Table 4 below displays the average returns and risks profiles of Islamic and conventional trust funds for a long-term period of 36 months from February 2000 to January 2003. From the sample funds, only 1 (8%) of Islamic funds and 27 (35%) of conventional funds were able to outperformed the market. The average mean monthly returns of both funds were also found to be performing below their respective market and the risk-free treasury bills. The above findings also indicated that the average standard deviation of both Islamic and conventional funds were greater than their market. This entailed that during longer period of three years, the monthly returns of both funds have greater volatility than their respective market. Furthermore, the average beta values for both funds were below 1.0 of the market. However, the conventional funds achieved lower beta value (0.65) indicating a lower risk portfolio as compared to Islamic funds beta (0.82). In addition, the R-square values for both funds indicate that they are not well diversified.

Based on the three unit trusts performance indicators, the Islamic and conventional funds were also unable to exhibit superior performance than their market. Only 1 Islamic fund was able to beat the market under the Adjusted Sharpe index whereas none of the Islamic funds could outperform the market under Treynor and Adjusted Jensen indices. Moreover, the above results also showed that 75% of conventional funds achieved below market average under Sharpe index while 82% of them under performed the market when Treynor and Adjusted Jensen indices were used. The results of Islamic funds performance did not support the results of Shariff (2002) whereby based on three years performance of February 1999 to January 2002, the author found that all the Islamic funds delivered superior performance than the market. However, the current results were consistent with other prior studies by Tan (1995), Mohamed and Mohd Nasir (1995), Lee (1993) and other international studies by Sharpe (1966) and Treynor (1966).

In summary, it was apparent that the yearly performance results of Islamic funds were unable to outperform the conventional funds. Except in Year 2, the Islamic funds were also unable to exhibit superior performance than its market.

[Insert Table 4]

4.2 INDEPENDENT SAMPLE T-TEST RESULTS

This test is used to determine whether the mean performance of the Islamic and conventional funds for the periods under study differed. The mean performance tested was based on the three performance indices of Adjusted Sharpe, Treynor and Adjusted Jensen. The results on Table 5 revealed that, except for the performance in Year 3 under the Adjusted Sharpe index, all other periods tested do not yield enough evidence to infer that the mean performance of both funds differ. Thus, H_0 is accepted for all the sub-periods except in Year 3 under the Adjusted Sharpe Index.

[Insert Table 5]

4.3 CONSISTENCY OF FUNDS' PERFORMANCE RANKING

Table 6 and 7 present the consistency of Islamic and conventional unit trusts performance as measured by Spearman Rank Correlation Coefficient, to determine the ability of the funds to maintain their performance within the period. It is noted that both Islamic and conventional trust funds exhibited the correlation coefficient which were significant based on the three performance indicators during the four periods under study. The Spearman rank correlation coefficient was

1.00 when Treynor and Adjusted Jensen indices were applied in all sub-periods for both types of funds which indicate that the funds ranked the same in these periods. Thus, it may be concluded that the ranking of performance of all the sample unit trusts were consistent within the period under study.

[Insert Table 6 & Table 7]

The temporal performance of the Islamic and conventional unit trusts was analyzed based on the three performance indices using Spearman Rank Correlation Coefficient and the findings are presented in Table 8 and 9 below. It is noted that the performance of Islamic trust funds were inconsistent for all the three sub-periods. The negative Spearman rank correlation coefficient although insignificant does reflect some reversals in the performance of funds.

The conventional funds were also seemed to be inconsistent in their temporal performance with significant negative correlation coefficient of –0.241 between Year 1 and Year 2 based on the Adjusted Sharpe index. This also shows that there was a significant reversal in the funds performance between the two periods. The reversals in performance indicate that funds that perform well in one period did not continue to do so in the next period. Thus, it is crystal clear that there was no difference in the consistency of the ranking of temporal performance for the Islamic and conventional funds. These results are also in congruent with other Malaysian studies of Shariff (2002), Mohd Nawawi et. al. (1999), Leong and Aw (1997), Kok and Khoo (1995) and Mohamed and Mohd Nasir (1995).

[Insert Table 8 & Table 9]

5.0 CONCLUSION

The results of this study revealed that the average nominal monthly returns of Islamic funds were 'losers' because they were unable to outperform the conventional funds during the period under study. The Islamic funds were also unable to exhibit superior performance than the average market performance as represented by the Syariah index and the risk-free returns in both short-term (1 year analysis) and long term (3 years analysis) periods. In addition, except in Year 2, the conventional funds were also found to be inferior to its market as gauged by the Composite Index of the KLSE and the risk-free returns. As for the evaluation based on the three performance indicators of Adjusted Sharpe, Treynor and Adjusted Jensen indices, it was revealed that on average, none of the Islamic funds were able to outclass the conventional funds. Except in Year 2, the results also revealed that the Islamic and conventional funds were outperformed by their

respective markets. This result is consistent with most of prior studies globally and locally which found that most of the funds in their studies were unable to outperform the market [Sharpe (1966), Treynor (1966), Firth (1977), Koh and Koh (1987), Koh and Kee (1990), Lee (1993), Mohamed and Mohd Nasir (1995) and Tan (1995)].

Nevertheless, there were Malaysian studies with contradicting results which indicated that the Islamic (Shariff, 2002 and Arbi, 1999) and conventional (Mohd Nawawi et. al., 1999) funds were able to display superior performance than the market in bearish periods. However, the bearish or bullish condition of this current study is unable to be determined due to the mixed results in the yearly assessments. In theory, Islamic funds tend to be defensive in nature, whereby they have a tendency to under perform during bull market but outperform during bear market (Smart Investors, June 2002). It may be due to the fact that the Islamic funds are not exposed to the banking sectors that are affected by the economic downturn. Thus, they are able to perform better than the market and the conventional funds. On the other hand, the finance sector performs encouragingly during the bull market drive causing the Islamic funds to perform worst than the market and the conventional funds.

In term of risk, the Islamic funds seemed to have lower risk than the conventional funds while the average beta value for both funds during the periods under study were lower than their respective markets. Thus, it can be concluded that most of the funds under study were less risky than the market. Furthermore, all the Islamic funds and conventional funds were also found to have a low degree of diversification compared to the market in all periods. This result is consistent with previous studies on the degree of diversification of unit trust funds in Malaysia and Singapore. The consistency of performance in one period with the next of Islamic and conventional funds ranking was further tested using the Spearman rank correlation coefficient. As in previous research, this study also observed that there was no consistency in both funds temporal performance ranking over the period under study. It was also noted that there was a significant negative correlation coefficient of conventional funds between Year 1 and Year 2 which indicates that there was a significant reversal in the performance ranking between the two periods.

In short, based on the results presented previously, it can be concluded that the conventional funds performance is slightly more appealing to investors than the Islamic funds. However, this study is based on past performance of each fund. Thus, investors should be aware that past performance is not necessarily a guide to future performance. Nonetheless, being a low risks portfolio, Islamic funds could be an excellent investment alternatives for investors who seek security and ethically conscious.

Table 1 : Average Returns and Risks Profiles of Islamic and Conventional Unit Trust Funds for Year 1 (February 2000 to January 2001)

	Mean Monthly Return	Standard Deviation	Beta	Adjusted Sharpe	Treynor Index	Adjusted Jensen	R-square
Islamic Funds	-0.0288	0.0817	1.0154	-0.4622	-0.0393	-0.0116	0.6968
No. of Funds :							
> market	0 (0%)	10(83%)	4(33%)	3(25%)	0(0%)	0(0%)	0(0%)
< market	12(100%)	2(17%)	7(67%)	9(75%)	12(100%)	12(100%)	12(100%)
Market (Syariah)	-0.0174	0.0668	1.0000	-0.3903	-0.0277	0.0000	1.0000
Conventional Funds	-0.0249	0.0632	0.7939	-0.6149	-0.1350	-0.1068	0.5710
No. of Funds:							
> market	16 (21%)	42 (55%)	21 (27%)	12(16%)	10 (13%)	10(13%)	0(0%)
< market	61 (79%)	35 (45%)	56 (73%)	65(83%)	67(87%)	67(87%)	77(100%)
Market (Composite)	-0.0179	0.0601	1.0000	-0.4416	-0.0282	0.0000	1.0000
Treasury Bills	0.0103	0.0462					

Table 2 : Average Returns and Risks Profiles of Islamic and Conventional Unit Trust Funds for Year 2 (February 2001 to January 2002)

	Mean Monthly Return	Standard Deviation	Beta	Adjusted Sharpe	Treynor Index	Adjusted Jensen	R-square
Islamic Funds	-0.0014	0.0515	0.6188	0.0959	0.0064	0.0011	0.657
No. of Funds :							
> market	5 (42%)	3 (25%)	0(0%)	5(42%)	7 (58%)	7 (58%)	0(0%)
< market	7 (58%)	9 (75%)	12(100%)	7(58%)	5 (42%)	5 (42%)	12(100%)
Market (Syariah)	0.0004	0.0643	1.000	0.0776	0.0053	0.0000	1.0000
Conventional Funds	0.0018	0.0607	0.5092	0.1624	0.0264	0.0201	0.6192
No. of Funds:							
> market	51(66%)	7 (9%)	0 (0%)	56 (73%)	55 (71%)	56 (73%)	0 (0%)
< market	26(34%)	70 (91%)	77 (100%)	21 (27%)	22 (29%)	21(27%)	77(100%)
Market (Composite)	0.0014	0.0731	1.000	0.0811	0.0063	0.0000	1.000
Treasury Bills	-0.0049	0.0134					

Table 3 : Average Returns and Risks Profiles of Islamic and Conventional Unit Trust Funds for Year 3 (February 2002 to January 2003)

	Mean Monthly Return	Standard Deviation	Beta	Adjusted Sharpe	Treynor Index	Adjusted Jensen	R-square
Islamic Funds	-0.0073	0.0410	0.6998	-0.1914	-0.0125	-0.0057	0.6570
No. of Funds :							
> market	7 (58%)	3 (25%)	0(0%)	5(42%)	4 (33%)	4 (33%)	0(0%)
< market	5 (42%)	9 (75%)	12(100%)	7(58%)	8 (77%)	8 (77%)	12(100%)
Market (Syariah)	-0.0052	0.0471	1.000	-0.1359	-0.0068	0.0000	1.0000
Conventional Funds	-0.0061	0.0556	0.6820	-0.1150	0.0175	0.0244	0.5523
No. of Funds:							
> market	49 (64%)	28 (36%)	3 (4%)	40 (52%)	37 (48%)	38 (49%)	0 (0%)
< market	28(36%)	49 (64%)	74 (96%)	37 (48%)	40 (52%)	39(51%)	77(100%)
Market (Composite)	-0.0053	0.0498	1.000	-0.1304	-0.0069	0.0000	1.000
Treasury Bills	0.0016	0.0128					

Table 4 : Average Returns and Risks Profiles of Islamic and Conventional Unit Trust Funds for 3 Years (February 2000 to January 2003)

	Mean Monthly Return	Standard Deviation	Beta	Adjusted Sharpe	Treynor Index	Adjusted Jensen	R-square
Islamic Funds	-0.0125	0.0611	0.8161	-0.2331	-0.0181	-0.0084	0.6343
No. of Funds :							
> market	1 (8%)	5 (42%)	1(8%)	1(8%)	0 (0%)	0 (0%)	0(0%)
< market	11 (92%)	7 (58%)	11(92%)	11(92%)	12 (100%)	12 (100%)	12(100%)
Market (Syariah)	-0.0074	0.0588	1.000	-0.1616	-0.0097	0.0000	1.0000
Conventional Funds	-0.0094	0.0666	0.6505	-0.1907	-0.0244	-0.0149	0.5029
No. of Funds:							
> market	27 (35%)	29 (38%)	3 (4%)	19 (25%)	14 (18%)	14 (18%)	0 (0%)
< market	50(65%)	48 (62%)	74 (96%)	58 (75%)	63 (82%)	63(82%)	77(100%)
Market (Composite)	-0.0072	0.0605	1.000	-0.1538	-0.0095	0.0000	1.000
Treasury Bills	0.0023	0.0286					

Table 5: The Results of Independent Sample T-Test

Performance Indicator	Period	P-value	Performance Indicator	Period	P-value	Performance Indicator	Period	P-value
Adjusted Sharpe	(Year 1) Feb. 2000 - Jan. 2001	0.217	Treynor	(Year 1) Feb. 2000 - Jan. 2001	0.694	Adjusted Jensen	(Year 1) Feb. 2000 - Jan. 2001	0.695
	(Year 2) Feb. 2001 - Jan. 2002	0.248		(Year 2) Feb. 2001 - Jan. 2002	0.629		(Year 2) Feb. 2001 - Jan. 2002	0.646
	(Year 3) Feb. 2002 - Jan. 2003	0.033*		(Year 3) Feb. 2002 - Jan. 2003	0.683		(Year 3) Feb. 2002 - Jan. 2003	0.682
	(Year 1-3) Feb. 2000 - Jan. 2003	0.11		(Year 1-3) Feb. 2000 - Jan. 2003	0.795		(Year 1-3) Feb. 2000 - Jan. 2003	0.789

*Significant at 0.05 level

Table 6: Consistency of Islamic Trusts Funds Performance Ranking measured by Spearman Rank Correlation Coefficient

Period	Adjusted Sharpe/ Treynor	Treynor / Adjusted Jensen	Adjusted Jensen /Adjusted Sharpe
(Year 1) Feb. 2000 - Jan. 2001	0.972* (0.00)	1.00*	0.972* (0.00)
(Year 2) Feb. 2001 - Jan. 2002	0.986* (0.00)	1.00*	0.986* (0.00)
(Year 3) Feb. 2002 - Jan. 2003	0.958* (0.00)	1.00*	0.958* (0.00)
(Year 1-3) Feb. 2000 - Jan. 2003	0.839* (0.001)	1.00*	0.839* (0.001)

* Significant at 0.01 level. (P-values in bracket)

Table 7: Consistency of Conventional Trusts Funds Performance Ranking measured by Spearman Rank Correlation Coefficient

Period	Adjusted Sharpe/ Treynor	Treynor / Adjusted Jensen	Adjusted Jensen /Adjusted Sharpe
(Year 1) Feb. 2000 - Jan. 2001	0.641* (0.00)	1.00*	0.641* (0.00)
(Year 2) Feb. 2001 - Jan. 2002	0.587* (0.00)	1.00*	0.587* (0.00)
(Year 3) Feb. 2002 - Jan. 2003	0.818* (0.00)	1.00*	0.818* (0.00)
(Year 1-3) Feb. 2000 - Jan. 2003	0.818* (0.001)	1.00*	0.818* (0.001)

* Significant at 0.01 level. (P-values in bracket)

Table 8: Consistency of Islamic Trusts Funds Temporal Performance Ranking measured by Spearman Rank Correlation Coefficient

Performance Indicators	Period	Year 1	Year 2	Year 3
Adjusted Sharpe	Feb. 2000 - Jan. 2001 (Year 1)		-0.503 (0.095)	
	Feb. 2001 - Jan. 2002 (Year 2)			0.21 (0.513)
	Feb. 2002 - Jan. 2003 (Year 3)	0.021 (0.948)		
Treynor	Feb. 2000 - Jan. 2001 (Year 1)		-0.336 (0.286)	
	Feb. 2001 - Jan. 2002 (Year 2)			0.266 (0.404)
	Feb. 2002 - Jan. 2003 (Year 3)	-0.070 (0.829)		
Adjusted Jensen	Feb. 2000 - Jan. 2001 (Year 1)		-0.336 (0.286)	
	Feb. 2001 - Jan. 2002 (Year 2)			0.266 (0.404)
	Feb. 2002 - Jan. 2003 (Year 3)	-0.070 (0.829)		

(p-values in bracket)

Table 9: Consistency of Conventional Trusts Funds Temporal Performance Ranking measured by Spearman Rank Correlation Coefficient

Performance Indicators	Period	Year 1	Year 2	Year 3
Adjusted Sharpe	Feb. 2000 - Jan. 2001 (Year 1)		-0.241* (0.035)	
	Feb. 2001 - Jan. 2002 (Year 2)			0.050 (0.665)
	Feb. 2002 - Jan. 2003 (Year 3)	0.036 (0.756)		
Treynor	Feb. 2000 - Jan. 2001 (Year 1)		-0.213 (0.063)	
	Feb. 2001 - Jan. 2002 (Year 2)			-0.042 (0.717)
	Feb. 2002 - Jan. 2003 (Year 3)	0.076 (0.512)		
Adjusted Jensen	Feb. 2000 - Jan. 2001 (Year 1)		-0.213 (0.63)	
	Feb. 2001 - Jan. 2002 (Year 2)			-0.042 (0.717)
	Feb. 2002 - Jan. 2003 (Year 3)	0.076 (0.512)		

* Significant at 0.05 level. (P-values in bracket)

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