CHAPTER 4

ANALYSIS AND RESULTS

4.1 INTRODUCTION

This chapter explains the results and findings of the study undertaken. The rankings of the respective sectors were done in the following order.

The mean quarterly returns and betas of the sectors were first tabulated in descending order of both the returns and betas respectively. Then, tabulation and ranking of sectors are prepared for its performance using the results of the three indices obtained namely Sharpe Index, Treynor Index and Jensen Index.

4.2 QUARTERLY RETURNS AND BETA

Table 2 shows the mean quarterly returns of the individual sectors as well as the market (EMAS Index). From the results obtained, four of the sectors show a mean quarterly return higher than the market quarterly return while three other sectors exhibit a mean quarterly return lower than the market quarterly return. The sector with the highest mean quarterly return was the finance sector followed by the construction sector and than the services sector.

It is not surprising that these are the three sectors, which exhibited the highest quarterly returns. Since equities are valued by the present value of future cash flows, reductions in interest rates and loan growth thereafter contributed to higher valuations of equities in the finance sector. The sector also benefited from the measures taken by the Government to reduce NPL's via Danaharta and to recapitalise banks via Danamodal.

Many construction projects were delayed, postponed and cancelled by the Malaysian Government during the recession. Many mega projects were also called to a halt during that time. After the recession, the government had to kick start many delayed projects to spur economic growth. The construction sector benefited as the government injected more money into the economy in order for abandoned projects to be restarted and accelerated.

The services sector also known as the trading sector, benefited from the depreciation of the ringgit as well as the tripling of oil prices after the East Asian financial crisis. The ringgit depreciation increased export demand and the higher oil prices increased revenue for Malaysian petroleum companies.

In terms of risk, the finance sector had the second highest beta value among the sectors, which was 1.225 indicating that it was the second riskiest sector. The services sector had a beta of 1.071 while the construction sector had a beta of 1.261. The construction sector had the highest beta value amongst all the sectors indicating that it was the riskiest sector.

The property sector exhibited lowest quarterly returns probably because the depreciation of the ringgit created a lot of wealth loss and hence reduction in property investment. The plantation sector too exhibited low quarterly returns and this could be due to the increased cost of inputs to the plantation industry. The cost of pesticides and fertilisers had increased due to the depreciation of the ringgit.

TABLE 2

MEAN QUARTERLY RAW RETURNS AND BETA

Rank	Sector	Mean Raw Returns (%)	Beta
1	Finance	7.59	1.225
2	Construction	6.20	1.261
3	Services	5.20	1.071
4	Consumer Products	4.98	0.739
5	EMAS	4.91	1.000
6	Industrial Products	3.71	0.848
7	Plantation	3.31	0.622
8	Property	3.26	1.043

Table 3 shows that the construction, finance, services and property sectors have a beta of more than 1.00. This means that these sectors are relatively riskier than the market and one would expect the returns to be more than the market returns in order to be compensated for the additional risk incurred.

The construction sector appears to have the highest beta value and a mean return of 6.20 %. This means that investors have been compensated for the higher risk as the sector has one of the higher quarterly mean returns.

The finance sector exhibits a classic high-risk high returns case as a beta value of 1.225 gave a mean return of 7.59 %.

The consumer products sector gave a mean return of 4.98 % with a beta value of only 0.739. This sector has obviously performed well as a higher return than the market return was possible with a lower risk than the market risk.

Clearly, the notion of an efficiently priced market is an extreme concept We know they cannot be perfectly efficient. If they were, there would be no incentives to attract financial analysts to watch for or develop new information.

From the results obtained, it can be seen that an investor could beat the market by investing in five of the sectors i.e. forming a portfolio that mirrors five of the sectors. This obviously nullifies the EMH as the EMH states that an investor cannot beat the market. However, the Inefficient Market Hypotheses (IMH) states that the market is inefficient due to disequilibrium. The Malaysian market was definitely in disequilibrium after the financial crisis. Equity prices had dropped far below their equilibrium prices. It is obvious from the value of the indices that the index used for the market proxy, the EMAS index had just about doubled during the period of study whereas some of the sector indices had almost tripled. We therefore have a period of anomaly.

TABLE 3

BETA AND MEAN QUARTERLY RETURNS

Rank	Sector	Beta	Mean Returns (%)
1	Construction	1.261	6.20
2	Finance	1.225	7.59
3	Services	1.071	5.20
4	Property	1.043	3.26
5	EMAS	1.000	4.91
6	Industrial Products	0.848	3.71
7	Consumer Products	0.739	4.98
8	Plantation	0.622	3.31

4.3 INVESTMENT PERFORMANCE

Table 4 presents the results of the Sharpe Index. From the table, it was apparent that the consumer products and finance sectors have performed better than the market according to the Sharpe Index.

The property sector was the worst performer according to the Sharpe Index. This result was not surprising as the property sector was badly hit during the recession and it is the sector that will take the most time to recover. Many Malaysians lost a lot of wealth in the equity market and also had to pay heavily for a few months when the lending rates skyrocketed. This in turn caused a slowdown in the property market.

Obviously it will take time to recover from such a crisis before the property sector experiences another boom.

The consumer products and finance sector obviously showed the best performance when we look at **Table 4**.

Substituting imported products, which obviously cost more after the depreciation of the ringgit, with cheaper local alternatives has caused the consumer products sector to thrive.

Higher valuations of equities in the finance sector were possible due to reductions in interest rates and consequent loan growth. The sector also reaped gains from the setting up of Danaharta to buy over selected NPL's and Danamodal to recapitalise ailing banks.

TABLE 4

SHARPE INDEX

Sector	Sharpe Index	Rank
Consumer Products	0.2651	1
Finance	0.2624	2
EMAS	0.1962	3
Construction	0.1937	4
Services	0.1936	5
Plantation	0.1660	6
Industrial Products	0.1600	7
Property	0.1073	8

Table 5 presents the results computed for the Treynor Index. It was observed that all the consumer products, finance and construction sectors outperformed the market. This was not a surprising result for sector performance after a recession. The Sharpe Index measure ranked the construction sector as a market under performer after the consumer products and finance sectors. However, the Treynor Index measure ranks the construction sector as a market over performer. The Sharpe Index ranks performance based on returns per unit total risk while the Treynor Index ranks performance based on returns per systematic risk. This means that the construction sector has a relatively smaller systematic risk than the consumer products and finance sectors.

The Treynor Index, just like the Sharpe Index ranked the property sector as the worst performer. The reasons for this are as explained before.

TABLE 5

TREYNOR INDEX

Sector	Treynor Index	Rank
Consumer Products	0.0564	1
Finance	0.0553	2
Construction	0.0427	3
EMAS	0.0410	4
Services	0.04099	5
Plantation	0.0402	6
Industrial Products	0.0342	7
Property	0.0235	8

Table 6 shows the performance measure of the sectors using the Jensen Index. Not surprisingly, the finance and consumer products sectors are the most highly ranked as per the Sharpe Index and Treynor Index measure.

The property sector was ranked last using the Jensen Index and as mentioned before this was not surprising as there was plenty of wealth loss during the recession and investment in assets such as property dropped drastically. The recovery in the property sector is the slowest when compared to the other sectors and this explains why the property sector is ranked last.

The approach suggested by Jensen enables testing of statistical significance of performance. This test is however applicable to a very large number of observations and hence is deemed inappropriate for this study as the number of observations does not warrant statistical testing.

TABLE 6

JENSEN INDEX

SECTOR	JENSEN INDEX	RANK
Finance	0.017530	1
Consumer Products	0.011420	2
Construction	0.002176	3
EMAS	0.000000	4
Services	-0.000038	5
Plantation	-0.000452	6
Industrial Products	-0.005780	7
Property	-0.018300	8

4.4 OVERALL PERFORMANCE OF THE SECTORS

Table 7 shows the overall performance of the sectors in the main board of the Bursa Malaysia. It is noted that the consumer products sector has proven to be the best performer since the financial crisis and the property sector the worst performer. The trading, plantation, industrial products and property sector have under performed the market. The consumer products, finance and construction sectors have outperformed the market.

TABLE 7

OVERALL PERFORMANCE

OVERALL RANK	SECTOR	SHARPE INDEX RANK	TREYNOR INDEX RANK	JENSEN INDEX RANK	OVERALL POINTS
1	Consumer Products	1	1	2	29
2	Finance	2	2	1	28
3	Construction	4	3	3	23
4	EMAS	3	4	4	22
5	Services	5	5	5	18
6	Plantation	6	6	6	15
7	Industrial Products	7	7	7	12
8	Property	8	8	8	9