

## **CHAPTER 4**

### **RESEARCH RESULTS**

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4.1 Summary Statistics

Based on Table 4.1, the mean returns for all the equity funds from year 2005 to 2009 are 10.46%. Total 46 equity funds have been selected in the calculation. It consist of 44 Domestic Equity Funds and only 2 International Equity Funds. Based on the same period, the Domestic Equity Funds will have 10.67% while the mean returns for International Equity Funds are 5.55%. Due to the small number of funds that invest globally, its mean returns do not affect much on the total mean returns for all the equity funds. In general, Domestic Equity Funds

**Table 4.1: Summary of Fund Returns**

No.	Description	No. of Fund	Total Returns
1)	Year 2005 - 2009		
	All	46	0.1046
	Domestic Equity Funds	44	0.1067
	International Equity Funds	2	0.0555
2)	Year 2007 - 2009		
	All	75	0.0926
	Domestic Equity Funds	53	0.1065
	International Equity Funds	23	0.0613

\* Means are reported

mean is higher than the International Equity Funds. Its mean returns are almost two times higher than the returns from International Equity Funds.

However, the mean returns for year 2007 to 2009 have dropped to 9.26%. The drop was due to increase in number of International Equity Funds. The International Equity Funds have increased exponentially from 2 to 23 within two years time. The mean returns also increase to 6.13% from 5.55%. However, it is still lower than the Domestic Equity Funds. Not much changes for the mean returns of the Domestic Equity Funds. Its mean returns for year 2007 to 2009 are 10.65%.

In term of movement of the fund returns and the market returns, the pairwise correlation matrix shown there is a different between the Domestic Equity Funds and International Equity Funds as per Table 4.2 and 4.3. The correlation matrix figure of 0.987 is showing the returns of the Domestic Equity Funds found more related to Bursa Malaysia than Morgan Stanley Indexes. It is normal as the Domestic Equity Funds is mainly invests in Bursa Malaysia. As for the International Equity Funds, the returns are less correlated with the Market Index. The correlation matrix show the returns of the International Equity Funds is more related to the Morgan Stanley Indexes than Bursa Malaysia. However, it can be explained as the funds are investing more in other country than domestic stock market. In overall, the correlation matrix also shows that the returns of the Bursa Malaysia can be related to the returns of the Morgan Stanley Indexes.

**Table 4.2: Correlation Matrix for Return of Domestic Equity Funds**

	<i>Domestic Equity Funds</i>	<i>KLCI</i>	<i>MXWO</i>	<i>MXAPJ</i>	<i>MXEA</i>
Domestic Equity Funds	1.0000				
<i>KLCI</i>	0.9387	1.0000			
<i>MXWO</i>	0.8485	0.9206	1.0000		
<i>MXAPJ</i>	0.8831	0.9544	0.9732	1.0000	
<i>MXEA</i>	0.8371	0.9085	0.9976	0.9559	1.0000

**Table 4.3: Correlation Matrix for Return of International Equity Funds**

	<i>International Equity Funds</i>	<i>KLCI</i>	<i>MXWO</i>	<i>MXAPJ</i>	<i>MXEA</i>
International Equity Funds	1.0000				
<i>KLCI</i>	0.6848	1.0000			
<i>MXWO</i>	0.7231	0.9550	1.0000		
<i>MXAPJ</i>	0.7264	0.9685	0.9932	1.0000	
<i>MXEA</i>	0.7177	0.9546	0.9991	0.9884	1.0000

## 4.2 Analyses of Statistical Results

The alphas and betas were gathered by regress the fund returns on the equity market returns. The results are presented in Table 4.4 and a summary is presented in Table 4.5. The discussion below will be structured around the study research questions.

The first research question examine whether Domestic Equity Funds provide excess returns when compare with the equity market indexes. Refer to the result based on the five years returns from 2005 to 2009 as shown in the Table 4.4, most of the individual funds show a significant betas when regress the funds returns on the Bursa Malaysia. There are only two funds which called OSK-UOB Small Cap Opportunity and OSK-UOB Emerging Opportunity are insignificant. Besides, more than half of the funds are showing a significant betas when regress on the Morgan Stanley World Index and Morgan Stanley Asia Pacific ex-Japan. However, there are only 20 funds out of 44 funds that give a significant betas when regress on the Morgan Stanley Europe, Australia and Far East Index. Therefore, it shows that the Domestic Equity Funds can be more related to the Bursa Malaysia than other equity market indexes.

However there are only few funds are providing significant alphas when regress on the equity market returns. There are four significant alphas which showing negative figure while only two significant alphas showing positive figure. All three

significant alphas on Bursa Malaysia are negative. Besides, the fund that has significant alpha on Morgan Stanley Asia Pacific ex-Japan is also showing a negative alpha. The negative alphas means the funds are providing less returns when compare with the market returns. However, there are two positive alphas which shown in the Morgan Stanley World Index and Europe, Australia and Far East Index. It mean that these funds are providing excess returns when compare with this indexes.

For the analysis period of 2007 to 2009, the number of significant betas has reduced sharply. There are only 20 funds out of 52 Domestic Equity Funds provide significant betas. As for the all the three Morgan Stanley Indexes, there are less than ten significant betas for each Morgan Stanley Index respectively. It shows that the fund returns is less in tandem with the returns of the equity market over a shorter assessment period. However, it also show that the fund returns is still follow more on movement of the Bursa Malaysia rather than other indexes which in the comparison such as Morgan Stanley Indexes.

**Table 4.4: Jensen Performance Coefficients**

No.	Description	Total No. of Fund	KLCI			MXWO			MXAPJ			MXEA		
			Alpha	Beta	R <sup>2</sup>	Alpha	Beta	R <sup>2</sup>	Alpha	Beta	R <sup>2</sup>	Alpha	Beta	R <sup>2</sup>
A)	Year 2005 - 2009	46	-0.0403	0.6692 **	0.9892	0.0358	0.8424 **	0.6487	-0.0427	0.5277 **	0.9454	0.0241	0.7591 **	0.8153
i)	<b>Domestic Equity Funds</b>	44	0.0322	0.7715 **	0.9955	0.1208	0.9318 **	0.8126	0.0358	0.5985 **	0.9149	0.1090	0.8401 **	0.7649
	1) Prudential Equity Income Fund		0.0229	0.9820 **	0.9825	0.1265	1.1052 **	0.7839	0.0235	0.7226 **	0.9144	0.1127	0.9911	0.7492
	2) Public Savings Fund		0.0105	0.8987 **	0.9861	0.1103	1.1408 **	0.8835	0.0085	0.7196 **	0.9593	0.0957	1.0315 **	0.8584
	3) Public Growth Fund		0.0123	0.9590 **	0.9839	0.1186	1.1735 **	0.8281	0.0148	0.7353 **	0.8870	0.1034	1.0679 **	0.8148
	4) Public Index Fund		0.0323	1.0259 **	0.9797	0.1465	1.1828 **	0.8285	0.0378	0.7648 **	0.8312	0.1314	1.0707	0.7084
	5) Public Industry Fund		0.0227	0.8380 **	0.9882	0.1169	1.0510 **	0.8643	0.0221	0.9569	0.9589	0.1037	0.9469 **	0.8337
	6) Public Aggressive Growth Fund		0.0559	0.9892 **	0.8917	0.1690	1.0160	0.5313	0.0684	0.6987	0.6856	0.1564	0.9097	0.5061
	7) Public Regular Savings Fund		0.0277	0.9206 **	0.9796	0.1296	1.1636 **	0.8671	0.0242	0.7433 **	0.9654	0.1150	1.0460 **	0.8326
	8) Public Small Cap Fund		0.0572	1.0046 **	0.9573	0.1699	1.1344	0.8860	0.0650	0.7368 **	0.7898	0.1553	1.0287	0.6704
	9) Public Equity Fund		0.0146	0.8022 **	0.9662	0.1049	1.0312 **	0.8977	0.0156	0.6345 **	0.9273	0.0915	0.9379 **	0.8625
	10) PB Growth Fund		-0.0636 **	0.7915 **	0.9936	0.0273	0.9379 **	0.7780	-0.0572	0.5965 **	0.8587	0.0153	0.8498	0.7590
	11) Public Focus Select Fund		0.0153	0.8275 **	0.8154	0.1045	1.2361 **	0.9858	0.0068	0.7075 **	0.8813	0.0880 **	1.1394 **	0.9853
	12) TA Growth Fund		-0.0126	0.9149 **	0.8767	0.0910	1.0450	0.6279	0.0009	0.6411	0.6449	0.0771	0.9601	0.6299
	13) TA Comet Fund		-0.1148 **	0.8787 **	0.9756	-0.0171	1.2228 **	0.8766	-0.1175	0.7096 **	0.9555	-0.0312	1.0107 **	0.8440
	14) TA High Growth Fund		-0.0263	1.1155 **	0.9465	0.0978	1.2309	0.6402	-0.0157	0.7977	0.7336	0.0820	1.1157	0.6251
	15) Affin Equity Fund		-0.0169	0.9022 **	0.9581	0.0859	1.0125	0.6768	-0.0067	0.6519	0.7657	0.0728	0.9202	0.6644
	16) Alliance Vision Fund		-0.0942 **	0.5408 **	0.9575	-0.0292	0.7215 **	0.9414	-0.0921 **	0.4466 **	0.9844	-0.0384	0.8522 **	0.9141
	17) Alliance Tactical Growth Fund		-0.0507	0.9460 **	0.9604	0.0551	1.1211 **	0.7729	-0.0484	0.7273 **	0.8877	0.0411	1.0076	0.7420
	18) Alliance Optimal Income Fund		-0.0775	1.0624 **	0.8618	0.0416	1.1590	0.5724	-0.0605	0.7235	0.6087	0.0260	1.0707	0.5806
	19) AnnCumulative Growth		-0.0238	0.9545 **	0.9835	0.0929	1.2412	0.7535	-0.0230	0.8131 **	0.8823	0.0774	1.1124	0.7192
	20) CMS Premier Fund		-0.0392	1.0544 **	0.9283	0.0797	1.1911	0.5848	-0.0282	0.7524	0.7213	0.0657	1.0048	0.5602
	21) CMB-Principal Equity Aggressive Fund 3		-0.0107	1.1433 **	0.9578	0.1137	1.3778 **	0.7738	-0.0168	0.9128 **	0.9267	0.0968	1.2282	0.7307
	22) CMB-Principal Small Cap Fund		-0.0524	0.8752 **	0.9742	0.0457	1.0823 **	0.7490	-0.0542	0.7019 **	0.9500	0.0323	0.9690 **	0.7884
	23) CMB-Principal Equity Growth & Income Fund		-0.0177	0.9789 **	0.9903	0.0913	1.1626 **	0.8278	-0.0138	0.7412 **	0.8575	0.0765	1.0513	0.7512
	24) CMB-Principal Equity Fund 2		-0.0811	0.9967 **	0.9711	0.0288	1.2227 **	0.8134	-0.0849	0.7980 **	0.9454	0.0136	1.0941 **	0.7740
	25) CMB-Principal Equity Income Fund		-0.0429	1.1599 **	0.9892	0.0841	1.3528	0.7490	-0.0408	0.8777 **	0.8602	0.0669	1.2206	0.7246
	26) CMB-Principal Equity Growth Fund		0.0000	0.8928 **	0.9603	0.0896	1.1135 **	0.8359	-0.0350	0.9359	0.9298	0.0790	1.3255 **	0.8123
	27) CMB-Principal Equity Aggressive Fund 1		-0.1013	0.8103 **	0.9332	-0.0070	0.8634	0.6265	-0.0868	0.5742	0.7223	-0.0164	1.0030	0.8251
	28) CMB-Principal KLCI-Linked Fund		-0.0750	1.0171 **	0.9281	0.0381	1.1868	0.6961	-0.0648	0.7311	0.7209	0.0224	1.0885	0.6149
	29) HLG Penny Stock Fund		-0.1237	0.8262 **	0.9008	-0.0320	1.1037 **	0.8729	-0.1296	0.6913 **	0.9346	-0.0458	0.9898 **	0.8343
	30) HLG Blue Chip Fund		0.0254	0.7004 **	0.9808	0.1080	0.8051	0.7327	0.0336	0.5225 **	0.8422	0.0977	0.7271	0.7102
	31) Kenanga Growth Fund		-0.0634	0.7391 **	0.9811	0.0216	0.9137 **	0.8295	-0.0614	0.5853 **	0.9286	0.1012	0.8204 **	0.7947
	32) MAAKL Equity Index Fund		-0.0235	0.9605 **	0.9774	0.0646	1.0942	0.7076	-0.0160	0.7077 **	0.8078	0.0707	0.9698	0.6880
	33) MAAKL Value Fund		-0.0558	0.8945 **	0.9874	0.0442	1.1047 **	0.8357	-0.0567	0.7102 **	0.9425	0.0303	0.8925 **	0.8016
	34) MAAKL Equity 80 Fund		-0.0353	0.6292 **	0.9749	0.0829	0.8269 **	0.9295	-0.0520	0.5019 **	0.9345	0.0075	0.7546 **	0.9199
	35) OSK-UIOB Equity Trust		-0.0279	0.9157	0.6962	0.0711	0.9144	0.3852	-0.0081	0.5628	0.3981	0.0584	0.8547	0.3998
	36) OSK-UIOB Small Cap Opportunity		-0.0279	0.8631 **	0.9686	0.0685	1.0942 **	0.8656	-0.0303	0.6968 **	0.9478	0.0548	0.9822 **	0.8202
	37) KLCI Tracker Fund		-0.0698	0.8122	0.5978	0.0271	0.7631	0.2989	-0.0403	0.4776	0.3195	0.0162	0.7217	0.3177
	38) OSK-UIOB Emerging Opportunity		-0.0793	0.9400 **	0.9706	0.0260	1.1118	0.7496	-0.0768	0.7225 **	0.8638	0.0122	0.8965	0.7155
	39) Pacific Premier Fund		-0.0618	0.8615 **	0.9192	0.0365	0.9192	0.6697	-0.0597	0.6697	0.8419	0.0247	0.8724	0.6221
	40) Pacific Pearl Fund		-0.0484	0.7315 **	0.9698	0.0350	0.9498 **	0.8949	-0.0477	0.5871 **	0.9330	0.0228	0.8599 **	0.8717
	41) Pacific Dividend Fund		-0.0686	0.7118 **	0.8739	0.0134	0.8899	0.7355	-0.0628	0.5435	0.7486	0.0020	0.8081	0.7208
ii)	<b>International Equity Funds</b>	2	-0.1292	0.9622 **	0.8542	-0.0237	1.2329	0.7598	-0.1358	0.7896 **	0.8505	-0.0388	1.0975	0.7155
	1) HwangDBS Select Opportunity Fund		-0.0374	0.8561	0.7373	0.0597	1.0196	0.5682	-0.0405	0.6963	0.7231	0.0479	0.8876	0.5118
	2) HwangDBS Asia Quantum Fund													





In term of alphas, the Domestic Equity Funds is having more total significant of alphas in the assessment period of 2007 to 2009 compare to 2005 to 2009. There are total four significant positive alphas and four significant negative alphas. All the negative alphas are derived when compare the funds returns with the Morgan Stanley Asia Pacific ex-Japan Index. However, it is interesting that there are three Domestic Equity Funds provide positive alphas when regress on the Morgan Stanley Europe, Australia and Far East Index. Besides, there are only one fund provide a positive alphas when compare the Bursa Malaysia.

Based on the summary of the regression analysis in Table 4.5, most of the Domestic Equity Funds did not provide excess returns when compare with the equity market indexes. There are only few significant alphas but not all the alphas are positive. It applies to the study result for both five years (2005 – 2009) and three years (2007 - 2009) assessment periods.

The second research question examine whether International Equity Funds provide excess returns when compare with the equity market indexes. In the assessment period from 2005 to 2009, there are only 2 funds available in the markets namely HwangDBS Select Opportunities Fund and HwangDBS Asia Quantum Funds. Only HwangDBS Select Opportunities is found to move in tandem with the returns of Bursa Malaysia and Morgan Stanley Asia Pacific ex-Japan as there is a significant beta. As for the alphas, none of these two funds

found to provide significant alphas when regress with all the equity market indexes.

As for the assessment from year 2007 to 2009, it is interesting to note that the number of International Equity Funds available in the market have increased to 23 in year 2007 from 2 in year 2005. However, the most of the fund returns are having insignificant betas which mean that it is not moving in tandem with the returns of the equity market. There are total 11 significant betas when regress on the equity market indexes. Regression on Bursa Malaysia provided one significant beta while Morgan Stanley World Index provided two significant alphas. However, the regression result on Morgan Stanley Asia Pacific ex-Japan Index and Europe Australia, and Far East Index provide four significant betas each.

There are only two International Equity Funds provided significant alphas. The Pacific Focus18 Fund provide a negative alphas when compare with the returns of Bursa Malaysia while TA South East Asia Equity Funds provided a positive alphas when regress on the Morgan Stanley Europe, Australia and Far East Index. As summarised in the Table 4.5, the International Equity Funds does not provide excess returns when compare with the equity market indexes. Most of the funds did not outperform the equity market. There are only one fund found provided the excess returns when compare the equity market.

**Table 4.5: Fund Performance Summary**

No.	Description	Total No. of Fund	KLCI			MXWO			MXAPJ			MXEA								
			0 > 0 < 0	Total	Mean Alpha	Mean Beta	0 > 0 < 0	Total	Mean Alpha	Mean Beta	0 > 0 < 0	Total	Mean Alpha	Mean Beta						
<b>A) Year 2005 - 2009</b>																				
1)	All	46	43	0	3	46	-0.0331 (0.0465)	0.8992 (0.1392)	45	1	0	46	0.0680 (0.0508)	1.0735 (0.1588)	45	0	1	46	0.0543 (0.0502)	0.9698 (0.1414)
2)	Domestic Equity Funds	44	41	0	3	44	-0.0308 (0.0452)	0.8988 (0.1419)	43	1	0	44	0.0703 (0.0500)	1.0711 (0.1604)	43	0	1	44	0.0566 (0.0493)	0.9688 (0.1427)
3)	International Equity Funds	2	2	0	0	2	-0.0833 (0.0650)	0.9091 (0.0751)	2	0	0	2	0.0180 (0.0590)	1.1263 (0.1508)	2	0	0	2	0.0046 (0.0613)	0.9926 (0.1484)
<b>B) Year 2007 - 2009</b>																				
1)	All	75	73	1	1	75	-0.0378 (0.0753)	0.7927 (0.3616)	75	0	0	75	0.1207 (0.0822)	1.0735 (0.4392)	71	0	4	75	-0.0182 (0.0772)	0.6132 (0.2682)
2)	Domestic Equity Funds	52	51	1	0	52	-0.0255 (0.0528)	0.8581 (0.1619)	52	0	0	52	0.1394 (0.0687)	1.1349 (0.2199)	48	0	4	52	-0.0053 (0.0551)	0.6498 (0.1252)
3)	International Equity Funds	23	22	0	1	23	-0.0655 (0.1069)	0.6448 (0.5882)	23	0	0	23	0.0784 (0.0953)	0.9348 (0.7126)	23	0	0	23	-0.0474 (0.1082)	0.5306 (0.4419)

\* Standard deviations are in parentheses

The third research question examine whether International Equity Funds provide higher excess returns than Domestic Equity Funds when compare with the equity market indexes. The results have been summarised as shown in Table 4.6. The assessment was done only for analysis from 2007 to 2009. The Domestic or International dummy variable was omitted from the 2005 to 2009 analysis since there are only two funds are International Equity Funds. The result from Table 4.6 show that the International Equity Funds did not provide higher excess returns than Domestic Equity Funds when compare with all the four equity market returns. The figure of the dummy variable show in all equity market is insignificant.

#### 4.3 Summary of Research Results

This study show that returns of the Domestic Equity Funds is more related to domestic equity market which is the Bursa Malaysia. As for the International Equity Funds, it can be more related to the market returns of the index from Asia Pacific or Far East countries. As for the excess returns which measured by the alpha, most of the unit trust funds did not provide superior returns when compare to the equity market indexes. Regardless of equity fund that invest in domestic or international market, only few out of total 75 unit trust funds in this study manage to provide excess returns. It is also interesting to note that there are also few funds underperforms when compare with the returns of the equity market.

Besides, the study also shows no different in excess returns between Domestic Equity Funds and International Equity Funds.

**Table 4.6: Excess Return for Domestic and International Equity Funds**

No.	Equity Market Index	Year 2007 - 2009			
		Alpha	Dummy Variable	Beta	R <sup>2</sup>
1)	KLCI	-0.0180	-0.0399	0.7949 **	0.7564
2)	MXWO	0.1371 **	-0.0500	1.0839 **	0.7437
3)	MXAPJ	-0.0008	-0.0453	0.6183 **	0.7468
4)	MXEA	0.1368 **	-0.0513	1.0267 **	0.7507

\*\* Significant at 5% confidence level