An Analysis of the Investment Portfolio Composition of Takaful Undertakings in the GCC and Malaysia

Tolefat, Abdulrahman Khalil

An Analysis of the Investment Portfolio Composition of Takaful Undertakings in the GCC and Malaysia

by

Abdulrahman Khalil Tolefat

Thesis submitted in fulfilment of the requirements for the award of Ph.D. at Durham University

Institute for Middle Eastern and Islamic Studies
University of Durham

October 2008

ABSTRACT

An Analysis of the Investment Portfolio Composition of Takaful Undertakings in the GCC and Malaysia

Abdulrahman Khalil Tolefat

The Islamic finance industry has witnessed a remarkable growth during the last decade. The total *shari'ah* compliant assets worldwide were estimated at US$700 billion in 2007 compared with US$150 billion in the mid 1990s. The industry is expected to continue its strong growth trend fuelled by increase in oil prices. One of the fastest-growing segments in Islamic finance is the Islamic insurance *(takaful)* industry which is expected to continue its strong growth rate in the future. This research concerns the Islamic insurance industry and particularly the asset management aspect.

This research aims at exploring the investment portfolio compositions for *takaful companies* in both the Gulf Cooperation Council Countries (GCC) and Malaysia. The exploration was conducted for each type of fund under the *takaful* structure which are: shareholders, general and family funds. Moreover, the research aims to explore the gaps between actual and desired investment portfolio for *takaful-operating companies* for each of the above-mentioned funds.

The research was conducted by using a multi-strategy research approach which is known as "triangulation". The study was confined to two geographical groups, namely the GCC and Malaysia. Eleven *takaful companies* in both regions were covered in the research, eight from the GCC and three from Malaysia. However, these companies represented 90% of the GCC market and 95% of the Malaysian market when the research conducted. The data were collected through emailed questionnaire survey followed by a mix of structured and unstructured interviews with individuals from the industry.

The conclusion of the study pointed out that there is a divergence between *takaful companies* in the GCC and Malaysia in the actual investment portfolio composition. The main difference between *takaful* operating companies was observed in long term investment portfolio whereby the GCC companies invested mainly in equities and real estate while the Malaysian companies invested mainly in *sukuk* However, a convergence was noted in the desired investment portfolio composition in both regions and in particular toward investment in *sukuk* The convergence is expected once the primary and secondary markets for *sukuk* develops in the GCC and international regulatory framework is practiced.

ACKNOWLEDGMENTS

In the name of Allah the Most Compassionate and the Most Merciful. I am most grateful to Allah Almighty who gave me the health, patience, guidance and protection throughout the duration of my study.

First I would like to express my sincere thanks and gratitude to my supervisor, Professor Rodney Wilson for his kind co-operation and constant guidance and encouragement throughout the course of the study.

I would also like to extend my gratitude and special thanks to H.E. Rasheed Mohamed Al-Meraj, Governor of Central Bank of Bahrain and Dr. Anwar Kahlifa Al-Sadah, Former Deputy Governor of Central Bank of Bahrain, for their encouragement and continuous support.

I would like to record my appreciation to the regulators in the GCC and Bank Negara Malaysia for their kind effort and help to gather the information required for this study. Thanks are also extended to all CEO's of the surveyed *takaful operating companies* for their support and cooperation in providing me with all the required information for this study.

I am in debt to my parents for their overwhelming support, encouragement and love prayers for me throughout all my study.

Last but not least, I would like to express my love for my wife, Manar, for her support, patient and encouragement. Also, I would like to make my sincere apology for my wife Manar and our Children Saud and Aysha for all long working hours and absence. To do a PHD with the situations I had faced is feasible only if you have spouse like Manar.

DECLARATION

I hereby declare that no portion of the work that appears in this study has been used in support of an application of another degree in qualification to this or any other university or institution of learning.

Table of Contents

CHAPTER FIVE: INVESTMENT PORTFOLIO OF *TAKAFUL* UNDERTAKINGS IN THE GCC AND MALAYSIA: EXPLORING THE INVESTMENT BEHAVIOUR OF *TAKAFUL OPERATING COMPANIES*

CHAPTER SIX: LOCATING THE DIFFERENCES BETWEEN ACTUAL AND DESIRED INVESTMENT PORTFOLIO

CHAPTER SEVEN: DISCUSSION ON EMPIRICAL FINDINGS

List of Tables

List of Figures

List of Abbreviations

$US	United States' Dollars
AAOIFI	Accounting and Auditing Organization for Islamic Financial Institutions
BNM	Bank Negara Malaysia
CBB	Central Bank of Bahrain
CEO	Chief Executive Office
CV	Coefficient of Variation
GCC	Gulf Cooperation Council
HSSC	Higher Shari'ah Supervisory Council
IAIS	International Association for Insurance Supervisors
IFSB	Islamic Financial Services Board
MY	Malaysia
OIC	Organization of Islamic Conferences
PBUH	Peace be Upon Him
PF	Participants Fund
PRF	Participants Risk Fund
SPSS	Statistical Package for Social Science
SSB	Shari'ah Supervisory Board

CHAPTER ONE

INTRODUCTION

1.1 Research Background

Islamic finance has been one of the fastest-growing industries with an annual growth rate of 23.5% over the past five years (Grewal, 2008). The total *shari'ah*-compliant assets worldwide were estimated at US$700 billion in 2007 compared with US$150 billion in the mid 1990s (Grewal, 2008). The Islamic banking sector dominated the Islamic finance industry with assets representing 78.6% of total worldwide *shari'ah-compliant* assets (Grewal, 2008). Moreover, the Gulf Cooperation Council (GCC) countries account for two-thirds of global Islamic assets (Grewal, 2008). The industry is expected to continue registering strong growth in the near future to reach US$900 billion by the end of 2010, a growth of 20% per annum (Abid, 2008). Others believe that the industry would be able to serve 40%-50% of the total 2.5 billion Muslims worldwide in the next eight to ten years (Grewal, 2008). According to the Moody's Report, the future growth for the Islamic finance industry has been driven by the increase in oil prices which gives a sign that there will be no slow-down in the growth of this industry in the future. Furthermore, all other parts of the Islamic finance industry are also expected to register a substantial growth such as the Islamic bonds *(sukuk)* market, Islamic funds and Islamic insurance *(takaful).*

This research concerns the Islamic insurance industry which has also been registering a rapid growth during the last four years. There are 133 *takaful* operating companies in the world of which 59 companies are located in the GCC market which is the largest market for the *takaful* industry and represented 50% of the *takaful* global market as of the end of 2006 (Ernest & Young, 2008). The global *takaful* industry is maintaining a growth rate of 20% per annum and the contributions underwritten would rise to more than US$4.3 billion by the end of 2010 compared with US$2 billion in 2006 (Ernest & Young, 2008).

According to the World Takaful Report 2008, the *takaful* industry is estimated to reach US$10-15 billion within the next ten years. Furthermore, the World Takaful Report confirms GCC countries as the largest *takaful* market globally. The growth of *shari'ah-compliant* products sold by Islamic banks, reduction in government welfare benefits and economy and demographic growth in the Muslims countries will be part of the factors that would see the growth of this industry soar (Ernest & Young, 2008).

Although the *takaful* industry has been gaining substantial growth and interest, there are still several challenges facing this industry such as asset management problems, limited re-*takaful* capacities, and lack of expertise. This research focuses on the asset management of *takaful operating companies* in the GCC and Malaysia by exploring their investment compositions and the gaps in the asset classes required by the companies in these regions. This research is conducted in absence of adequate literature and statistics pertaining to the industry particularly from the asset management aspect. Hence, this research is probably one of the essential researches, and therefore the data gathered and presented in this study could be considered as a first step towards exploring the investment behaviour of *takaful operating companies.*

1.2 Significance of the Study

The rationale for the interest in the Islamic insurance industry in general was motivated by many factors. Firstly, the Islamic insurance industry has been registering substantial growth during the last five years and gaining a lot of interest from the international players including the leading international insurers and reinsurers such as American Insurance Group, Allianz SE, Hannover Re, Swiss Re and Lloyds market. Secondly, the Islamic insurance industry is a complementary part of the Islamic banking industry whose assets is expected to grow significantly in the near future. Finally, the booming of economies in Islamic countries and particularly those within the GCC will lead this industry to flourish. The amount of infrastructure projects to be conducted in the region and mega-projects handled by Islamic banks would lead the growth of general *takaful* business. However, reduction in government support, economic and demographic growth as well as increase in cost of education would lead the growth of family *takaful* business.

Despite the importance of the Islamic insurance industry, there has been very limited research and literature in the area related to this industry. In particular, not much is known about the structure of *takaful operating companies*. For example, the current model being adopted by *takaful operating companies* has not yet been explored in detail and documented. Some researchers believe that the Islamic insurance industry has been neglected in the literature because of the specialized nature of insurance as a subject (Mervyn, 2005). Moreover, there is a lack of standardization and statistics pertaining to this industry. All the above-mentioned problems would make the understating of this industry very difficult for the international players, regulators and customers whose fears might affect the growth of this industry.

The interest behind choosing asset management of Islamic insurance companies was due to several reasons. Firstly, the Islamic insurance industry will be able to grow and support the development of the Islamic banking industry without proper investment channels that are suitable to cover their insurance liabilities. Secondly, the assets management of *takaful* could be a first step towards attracting Islamic banks to give further attention to this industry. The highlight of the gaps in asset classes that *takaful operating companies* require may attract some Islamic banks to play a role in developing the required asset classes especially with the potential in growth of the assets of this industry.

Until now, there has been no study conducted on the investment behaviour addressing each of the funds individually. Likewise, detailed statistics about investment portfolio composition for each fund are not available. Therefore, this study was conducted with the aim to explore the asset classes comprising investment portfolio composition of the shareholders fund, general funds, and family funds of *takaful operating companies*. Moreover, this study compared the current and desired levels of the investment portfolio composition for each of the above-mentioned funds.

1.3 Research Problem

The hybrid structure of *takaful* which is in contrast to that of conventional insurance undertakings requires special attention once an investment strategy is under investigation. In particular, the investment strategy for each of the funds under the *takaful* structure should be individually studied. These funds comprise the Shareholders' funds of the *takaful* operator on the one hand, and the funds of *takaful* participants (policyholders) on the other hand. Moreover, the latter include underwriting or risk funds and, in the case of Life (or Family) *Takaful*, the participants' investment funds. The underwriting or risk funds include mortality risk funds in Family *Takaful* and, in the case of General (non-life) *Takaful*, the relevant underwriting funds (*e.g.* that for motor insurance) referred to below as General Funds. The reason for the need for individual study lies in the different nature of the liabilities under each fund, which calls for a different investment strategy or composition.

The existing research in the field of Islamic insurance, particularly the investment side, has been facing several difficulties regarding the research methodology which require further investigation. For example, a conclusion was made from a previous study that the *takaful* investment undertaking in the GCC countries are heavily invested in equities; however, this conclusion might be wrong as some of the *takaful operating companies* invested their shareholders fund in equities rather than participant's funds (Fisher,2005; Jaffer,2007). Therefore, the study research problem breaks down into the following questions:

- ***Question 1: What was the investment portfolio composition of takaful undertakings during the last four years (2002-2005)?***

- ***Question 2: Does the investment portfolio composition of shareholders fund, general fund and family funds in takaful undertaking differ in GCC and in Malaysia during the years 2002 to 2005?***

- ***Question 3: Do the takaful undertakings desire to change the current composition of their investment portfolios as of end of 2005?***

1.4 Research Aim, Objectives and Hypotheses

This research aims at exploring the investment behaviour of the *takaful operating companies* in the GCC and Malaysia by focusing on investment composition of shareholders, general and family funds individually. Also, the study is aiming to identify the gaps in the asset classes that the *takaful operating companies* in both these regions are required to cover their liabilities under each of the above-mentioned funds. Given the research problems and questions, the following objectives and hypotheses have been identified:

- ***Objective (1): To explore the asset classes comprising investment portfolio composition of shareholders fund, general fund and family funds of takaful undertakings in GCC and Malaysia.***

- ***Objective (2): To compare the actual and desired level of the investment portfolio composition of shareholders fund, general fund and family funds between GCC and Malaysia***

This second objective was formulated into testable hypotheses as follow:

- **Hypothesis 2.1:** There is no significant difference between the actual and desired levels of composition of shareholders fund investment portfolio in GCC and Malaysia.

- **Hypothesis 2.2:** There is no significant difference between the actual and desired levels of composition of general fund investment portfolio in GCC and Malaysia.

However, due to the negligible business of family *takaful* in the GCC, the third hypothesis is confined to Malaysian *takaful* undertakings.

- **Hypothesis 2.3:** There is no significant difference between the actual and desired levels of composition of family fund investment portfolio in Malaysia.

1.5 Research Methodology

In order to achieve the designated objectives and hypotheses, a multi-strategy research approach which is known as "triangulation" has been employed in this study. Under this approach, the data was gathered using a quantitative research strategy is reinforced by a qualitative research strategy. As this is an exploratory study, the use of such a multi - strategy research approach is very crucial for several reasons which will be discussed in detail in Chapter four.

The study was confined to two geographical groups, namely the GCC countries and Malaysia, for several reasons. Firstly, the majority of *takaful* undertakings in the world are concentrated in the GCC countries[1] and Malaysia.[2] Secondly, the Islamic finance industry, which includes banking, insurance, and capital market, has been established in these regions, and continuously represent the hub of this industry. At the time this study was conducted, the number of *takaful operating companies* in the market was small so the author tried to cover the total population. However, complete coverage was not achieved but the author covered 90% of the GCC market and 95% of the Malaysian market.

The data has been collected through an emailed pre-structured questionnaire followed by a mix of structured and unstructured interviews. The purpose of the interviews is to verify the data collected and to inquire about any certain trend or data that need to be justified. Given the detailed data required and in order to achieve the cooperation of the *takaful operating companies*, the regulatory authorities for the insurance sector in these countries –except Qatar– have been approached to gain their approval and to ask the *takaful operating companies* under their supervision to cooperate to fill the required questionnaire.

[1] Although Saudi Arabia is the biggest insurance market in the GCC, the coverage of this country was excluded at the time the study was conducted for several reasons. One of these included (at the time the study was conducted) the absence of regulation of insurance as a consequence of which all operating companies in Saudi Arabia were either unregulated or registered as offshore companies in Bahrain or as divisions operating under existing licensed banks. Also Oman was not included due to the non-existence of takaful operating companies in that country.

[2] Although there were many takaful operating companies in Sudan, this market was excluded due to the difficulties faced in gathering the required information.

The data collected were analyzed by utilizing both Microsoft Excel 2003 and Statistical Package for Social Science (SPSS) Version 15 programmes. Moreover, two non-parametric statistical techniques were used, namely Mann-Whitney U Test, and Wilcoxon Signed-Rank Test. Descriptive statistics were also applied in the analysis of the data.

1.6 Overview of the Thesis

The study comprises eight chapters. Chapter one is an introductory chapter which highlights the research problem, the motivation and significance of the study, the research objectives, hypotheses and research design.

In Chapters two and three, the literature review was performed. The review of legal aspects of insurance contracts under Islamic law is covered in Chapter two. However, Chapter three covered the Islamic insurance practices with special comparison between Islamic and conventional insurance.

The field of the study starts from Chapter Four by discussing the research methodology applied in the study. The chapter covered all the aspects of research methodology chosen which include the research designs and methods with special highlights to limitations of the study and the sample chosen.

Chapters five and six present the study results without any analysis or discussion. The results for the first objective of the study are presented in Chapter five while the results of the second objective are presented in Chapter six. The analysis and discussion of results for both objectives of the study are shown in Chapter seven by linking the findings of both objectives.

Chapter eight summarizes the thesis and draws the study conclusion. Moreover, it offers recommendations for regulatory authorities, *takaful operating companies* and Islamic banks based on the findings of the study. Finally, the areas for future reach are also highlighted.

CHAPTER TWO

INSURANCE UNDER ISLAMIC LAW

2.1 Introduction

The teachings of Islam have to be consulted and considered fully in all aspects of Muslim life regardless of time and era. This is due to the fact that Islam includes comprehensive and flexible doctrines that are applicable to all circumstances. All practices, both new and old must be filtered through and investigated according to *shari'ah* (Islamic law) principles in order to decide whether or not they are acceptable in Islamic terms; this includes economics and finance and insurance contracts and transactions. As insurance is a new financial contract, it is crucial that it be examined to ascertain whether or not it is permissible under Islamic law. This chapter provides a summary of the opinions of jurists and researchers who have examined the insurance contract from the perspective of Islamic law.

The literature review is divided into three parts. The first part deals with the validity of insurance as a concept in order to ascertain whether or not it complies with *shari'ah* principles. The second part goes on to outline contemporary jurists' views regarding the insurance contract in its different forms *i.e.* cooperative, mutual and commercial. A distinction has been made between the jurists' individual judgments and their collective verdict to determine whether or not their decisions differ. The third part looks comprehensively at the various arguments as expressed by jurists and researchers to either validate or invalidate the insurance contract. Finally, a summary and conclusion is given.

2.2 The Concept of Insurance in Islam

According to the majority of jurists, commercial insurance is prohibited in Islam since it contravenes *shari'ah* principles (Baltiji, 1987). In spite of this, Islam is not against the concept of insurance itself but against the means and methods that are used in commercial insurance (Al-Qaradawi, 2003; Hassan, 1979). In order to examine the validity of the insurance concept under *shari'ah* law, it is necessary to find some relevant evidence from both primary and secondary sources. The Holy Qur'an, *sunnah*, *ijma* (consensus) and *quyais* (individual reasoning based on analogy) remain the primary and fundamental sources for Islamic law. There are also secondary sources such as *maslahah mursalah* (public interest) and *uruf* (custom) (Ismail,nd). However, in all circumstances the secondary sources must conform to the primary sources.

The insurance concept is based on mutual cooperation and solidarity between the policyholders in order to protect each other against any unexpected risk or misfortune in the future. This concept is considered as an extremely good example of cooperation for the right reasons which Allah has encouraged the Muslims to practice: *"... Help ye one another in righteousness, and piety, but help ye not one another in sin and rancor.."* (Holy Qur'an, *Surah al-Maidah*, 4:2.). In addition, the *Sunnah* has stimulated the concept of mutual cooperation in many *Ahadeeth* such as "The believers, in their affection, mercy, and sympathy to each other, are like the body; if one of its organs suffers and complains, the entire body responds with insomnia and fever".[3] Moreover, the insurance concept embodies the practice of distributing risk between a large number of people to minimize the overall risk for each individual, which in turn contributes to the reduction of poverty rates in society and results in a better life for every person in that society. The Holy Qur'an advises the Muslims to seek the better life in both this world and the Hereafter: *"...Our Lord, give us a comfortable life in both this world and the Hereafter..."(* Holy Quran, *Surah al-Imr'an*, 2:201). Furthermore, the story of Prophet Yousuf (PBUH) applies the concept of insurance, as mentioned in the Holy Qur'an, when

[3] Muslim

he orders his subjects to save part of the harvest during times of abundance in order to prepare for the lean years which he predicted would occur in the future. Also, the Holy Prophet Muhammad (PBUH) encouraged the Muslims to help each other and remove the hardship from anyone who faced misfortune or difficulties:"... Narrated by Abu Huraira (r) from the Holy Prophet (PBUH) saying that: whosoever removes a worldly hardship from a believer Allah (PBUH) will remove from him one of the hardships of the Hereafter...".[4] Clearly, the insurance concept is without doubt an efficient tool for the alleviation of hardship, and therefore is line with the Prophetic tradition. In addition, the insurance concept enhances the principle of trusting in Allah, because such reliance is based on the notion of taking all precautions and then surrendering one's will to Allah; where the individual fails to take precautions and leaves things to chance rather than organizing his/her affairs properly, which is known as *taw'akul* (nonchalance and negligence). This is the opposite of trusting in Allah (*tawakkel*). In a *Hadith* narrated by Anas bin Malik, an Arab Bedouin asked the Prophet Muhammad (PBUH): "Shall I leave my camel untied and seek Allah's protection of it?" The Holy Prophet replied: "Tie your camel and then depend upon Allah". This means that Muslims have first to take all precautions and then leave things to Almighty Allah. In spite of this, there were a few jurists previously who were against insurance in all its forms as they argued it is contrary to the principle of *tawakkel* as the insured is putting his/her trust in the insurance company instead of Almighty Allah.

Furthermore, there are a number of Islamic contracts that have adopted the law of large numbers to mitigate risk such as the practice of *al-aqilah* (blood money), which is considered by many jurists and researchers as a practice that validates the insurance concept (Wilson, 1984; Melhim, 2002; Billah, nd). However, other jurists go beyond that and cite this system to validate the commercial insurance contract (Al-Zarqa, 1962; Al-Sanosui, 1953). This is mainly due to the fact that the Holy Qur'an, *Sunnah* and Islamic jurisprudence schools have recognized this practice. *Al-aqilah* is a mutual cooperative system that was practiced by ancient Arab tribes as a custom whereby if a member of a tribe was killed by a member of another tribe by unaware then the close relatives of the

[4] Muslim

killer had to contribute a sum of money to compensate the family of the victim. Moreover, the *al-aqilah* system can also be considered as a type of third party insurance in Islamic society (Al-Zarqa, 1962; Wilson, 1984). Furthermore, the second Caliph Omar further developed the practice of *al-aqilah* during his period by establishing a specific government entity (*Diwan*) to facilitate mutual cooperation between the people (Billah, nd).

With respect to the *ijma*, there is unanimous agreement between the majority of jurists and the main Islamic law organizations that there should be an acceptance of both the concept of insurance and of insurance companies that base their practices on a cooperative and mutual basis, provided that the activities of these companies are free from any element of *riba*. This decision is based on the fact that the concept of insurance with its mutuality and solidarity characteristics conforms to all aspects of *shari'ah* principles. The Islamic Fiqh Academy, which emanates from the Organization of Islamic Conferences (OIC) and consists of a representative from each member Islamic country decided in Resolution (9), issued in 1985, to accept the concept of insurance (Majma Al-Fiqh Al-Islami, 1998). Moreover, the Higher Council of Saudi Ulemas, the Fiqh Council of the World Muslim League and the First International Conference for the Islamic Economy all accepted the concept of insurance.

Regarding the *quyais*, another source of Islamic law, many jurists have used analogical sources to validate the concept of insurance whereby they examined Islamic contracts that embody this concept. They found many such contracts that correspond to the concept of insurance, for example *al-muwalah* (clientage with friendly cooperation), *al-wa'ad al-mulzim ind al-malikiyah* (promise according to the Malaki school), *al-kafalah* (bailment) and *dhaman khatar altariq* (risk on the highway). It should be noted that while some scholars used the analogy of Islamic contracts to justify the concept of insurance , others, such as Professors Muastfa Al-Zarqa, Sheikh Ali al-Khafif and Ahmed Al-Sanusi, have gone further and used these contracts to justify the insurance contract (both commercial and mutual) itself (Al-Zarqa, 1962; Al-Khafif, 1966; Al-Sanosui, 1953).

The concept of insurance can also be justified by reference to secondary sources of Islamic law, in particular *maslahah mursalah* (public interest). An evaluation of the time and era is required where there is an urgent need to find a way to protect people from unexpected risk in the future; such protection can only be provided by insurance policies. Therefore, the public interest emphasizes the necessity for the existence of such a concept of insurance in order to protect Muslims from an unforeseen event in the future (Billah, nd). However, since *maslahah mursalah* is a secondary source of *shari'ah*, any such practice must conform to the guidance of the Holy Qur'an and *Sunnah*.

Finally, the concept of insurance can be said to wholly conform to essential *shari'ah* objectives, or *maqasid al-shari'ah*, which includes the protection of: human life, faith, the mind, dependants and wealth. The concept of insurance provides Muslims with peace of mind as well as protecting their wealth, which wholly satisfies the *shari'ah* objectives, which aims at serving human well-being.

It should be noted that it has been claimed that insurance is against the will of Allah since the insured is trying to protect his/her property from the will of Allah and acting to change the consequences of adverse events that Allah may wish to occur. However, many refute this argument stating that the will of Allah is enhanced by the insurance system. They argue that the insured believes in the will of Allah and takes the insurance as a precautionary step to alleviate the consequence of risks that exist in life whether the insured buys an insurance policy or not (Al-Zarqa, 1962; Attar, 1983; Moghaizel, 1991). This is to say that the aim of insurance is not to go against the will of Allah but is in fact an effective tool to alleviate the consequence of tragedy if it should occur (Al-Zarqa, 1962; Attar, 1983; Moghaizel, 1991).

As can be seen from the foregoing discussion, the consensus of scholars who have validated the insurance contract and those who have not, is that the concept of insurance is not only acceptable in Islamic law but is also considered as a spiritual tool needed to protect Muslims from unexpected risks and provide them with a comfortable life.

2.3 The Views of Contemporary Jurists on the Insurance Contract

Contemporary jurists have differing views on the legitimacy of insurance contracts due to several reasons. A primary reason is the lack of any reference to the insurance contract in the Holy Qur'an or *Sunnah* and the absence of any classical Islamic law on this subject.[5] Moreover, the different degrees of understanding among jurists regarding the insurance contract as a mechanism have played a major role in the discrepancy in their opinions. In addition, the jurists have used different bases for their arguments whereby some have attempted to examine the insurance contract using legal arguments such as *riba* (usury) and *garar* (uncertainty) while others employed political, moral, social and economic arguments (Moghaizel, 1991). It should be noted, therefore, that the dispute between the jurists regarding the validity of insurance contracts is due to the practice rather than the concept of insurance, which is acceptable to all scholars (Hassan, 1979). However, there are some jurists who consider the concept of life insurance to be impermissible under *shari'ah law*.

The permissibility of the insurance contract under Islamic law has been widely examined from two bases. First is the individual basis whereby each jurist has determined the permissibility of the insurance contract depending upon his own independent judgment (*ijtihad*). In contrast, the judgment of a group of jurists such as the Islamic Fiqh Academy and the Higher Council of Saudi Ulemas which has unanimously come to a conclusion regarding the legitimacy of the insurance contract is considered as the second basis. In this section, a distinction will be made between these two bases in order to discover the opinions currently held regarding the insurance contract as well as to determine whether there are any differences in the validity of such contracts from the two perspectives.

[5] Except the reference to marine insurance this had been reported by Ibn Abidin.

2.3.1 The permissibility of insurance contracts on the basis of individual judgments

The first scholar to examine the insurance contract was Ibn Abidin from the Hanafi school in the early nineteenth century when he wrote about the legitimacy of insurance; in particular marine insurance. Marine insurance in the era of Ibn Abidin was known as a *suwkrah* which is the Arabic term for insurance premium. The *suwkrah* had been widely practiced in trading activities between the Muslims and Italian merchants. In order to validate the *suwkrah*, Ibn Abidin attempted to compare it with other Islamic contracts which are: fee on guarantee of deposit (*ajar daman al-wadiah*), bailment (*al-kafalah*) and surety for hazards on the highway (*dhaman khatat al-tarik*). He concluded that the practice of *suwkrah* was invalid since it did not fit with any other Islamic contract and as such was not binding under *shari'ah* law (Ibn Abidin,1966). It should be noted that Ibn Abidin did not refer in his argument to *riba*, *garar* or any other arguments that are highlighted by modern scholars because those elements of prohibition will not become active unless the new contract is fitted with one of the Islamic contracts. The Mufti of Egypt, Sheikh Mohamed Bukhit, who is considered to be the second scholar after Ibn Abidin, examined the validity of the insurance contract and held the same view as to the prohibition of the insurance contract (Al-Salih, 2004).[6] In contrast, Sheikh Mohamed Abdu validated the insurance contract, in particular life insurance. His *fatwa* (decree) was issued on 9 saffar of 1319 H (c.e.) as a result of a question asked by a life insurance company about the validity of life insurance policies (Baltiji, 1987).[7] According to his *fatwa*, the life insurance contract is permissible since the agreement between the insured and the insurance company can be considered as a *mudarabah* (profit sharing) contract which is wholly acceptable under Islamic law.[8] As insurance companies became widespread in Muslim countries, the permissibility of the insurance contract became an essential topic of discussion which attracted a lot of contemporary jurists and researchers

[6] His position reported by Al-Salih, M.B.A.B.S. pp. 94-95.
[7] His *fatwa* reported by Baltiji, M. page 25 – 31.
[8] A lot of scholars who were against the permissibility of commercial insurance contracts had stated that the insurance company was trying to mislead the Sheikh in his *fatwa* by putting the question in a way that represented the Islamic *mudarabah* contract and did not mention any thing regarding insurance contracts. See also other arguments in Baltiji, pp. 25 -31and pp. 44-48 and Al-Salih, M.B.A.B.S. pp. 93 – 94.

to the study of this contract under the *shari'ah* law. Accordingly, a dispute had been started between the jurists and researchers regarding insurance contracts and their opinions can be categorized into five groups:

(a) The insurance contract is totally prohibited and against *shari'ah* principles regardless of the type of insurance company whether commercial, mutual or cooperative or its activities being general or life (Aliyyan, 1978; Abdu, 1987).

(b) The insurance contract based on mutuality or co-operation is the only form of insurance accepted by *shari'ah* principles as long as the activities of the company do not include any kind of *riba* or other evils.[9] However, the majority of scholars who fall into this group have insisted on the urgent need to establish alternative insurance companies that fully conform to the *shari'ah* principles. Accordingly, these scholars have made a huge effort to develop Islamic insurance companies' (Attar, 1983; Al-Sayed, 1986; Baltiji, 1987; Mawlawi, 1996; Al-Qaradawi, 2003; Melhim, 2002; Al-Mahmood, 1994).

(c) Life insurance is prohibited regardless of whether the company is mutual, co-operative or commercial (Al-Mahmood, 1994).[10]

(d) The insurance contract and its operation are totally acceptable according to *shari'ah* principles regardless of the type, whether mutual, co-operative or commercial. However, scholars in this group have insisted that the permissibility of commercial insurance is subject to the condition that all the practices of the insurance company, and in particular its investment activities, must be free from any element of *riba* (Al-Zarqa, 1962; Al-Khafif, 1966; Siddiqi, 1985; Mudkor, 1975; Mawlawi, 1996).[11]

(e) Some classes of insurance are permissible; these are car insurance (Al-Mahmud, 1986), life insurance (Baltiji, 1987; Al-Mahmood, 1994),[12] money insurance (Al-

[9] See the conditions in Al-Qaradawi, Y. page 253.
[10] Al-Mahmood, A.M. page 307 (reported opinion of Muhammad Al-Thalibi)
[11] Mawlawi, F. pp. 52-54 (reported opinion of Muhammad Al-Bahi).
[12] Baltiji, M. pp. 25- 31(reported opinion of Sheikh Muhammad Abdu) and Al-Mahmood, A.M. op.cit. p.306 (reported opinion of Abdwahab Khaliaf).

Mahmood, 1994),[13] theft insurance (Al-Mahmood, 1994),[14] marine insurance (Al-Mahmood, 1994),[15] and liability insurance (Al-Sanosui, 1953).

2.3.2 The permissibility of the insurance contract on the basis of a unanimous decision

The validity of the insurance contract was discussed at several conferences in order to end up with a resolution on a unanimous basis about this debatable topic. The topic was first discussed in the Second Islamic Jurisprudence week in Damasus in 1961 followed by many other conferences such as the Islamic Research Institution in Cairo in its second (1965) and third (1966) conferences and the First Symposium on Islamic Jurisprudence held in Libya in 1972. All these conferences had accepted cooperative insurance but had not reached a conclusion regarding commercial insurance practices. In 1976, the First Conference on Islamic Economics reached the conclusion that cooperative insurance is acceptable but commercial insurance is not. However, the conference suggested forming a committee representing both *shari'ah* scholars and Muslim economics to develop an alternative Islamic insurance system. Moreover, the Higher Council of Saudi Ulemas[16] and the Islamic Fiqh Academy[17] have also unanimously reached the above conclusion. As can be seen, on the basis of unanimous agreement there is a consensus between all bodies that cooperative and mutual insurance is acceptable under *shari'ah* law on certain conditions while commercial insurance is prohibited.

2.4 Arguments Regarding the Validity or Invalidity of Commercial Insurance

As can be seen from the above, all the contemporary jurists agreed on the permissibility of cooperative and mutual insurance. However, a dispute has occurred between Muslim

[13] Al-Mahmood, A.M. page 307 (reported opinion of Muhammad Al-Hajawi).
[14] Al-Mahmood, A.M. page 307 (reported opinion of najam Al-dinn Wa'adh).
[15] Al-Mahmood, A.M. pp. 307-308 (reported opinion of Abdullah Al-Shiykhi).
[16] Resolution no. (55) in 1397H, a copy of this resolution is attached in Al-Salih, M.B.A.B.S; pp. 280-285
[17] Resolution no. (9) in 1408H published in Majma Al-Fiqh Al-Islami pp.20-21.

jurists regarding commercial insurance contracts. Therefore, this section is confined only to arguments that have been used regarding the validity or otherwise of the commercial insurance contract.

2.4.1 Insurance and *garar*

Although the prohibition of *riba* is expressly stated in the Holy Qur'an, the prohibition of *garar* is only mentioned clearly in the *Sunnah* in different *Ahadeeth* and in various forms. There are many definitions of *garar* provided by the classical scholars from different Islamic law schools. These definitions vary although the majority of them are very specific and represent the special case of *garar*, for example the definition by Ibn Taymiyyah from the Hanbali school, who defines *garar* as "that whose outcomes are unknown" (Ibn taymiyyah, 1994). In addition, there are modern definitions as stated by many researchers such as "*garar* is trading in risk" (El-Gamal, 2000) and "*garar* is a broad concept in that it comprises uncertainty and risk-taking as well as excessive speculation, gambling and ignorance of the material aspects of contracts" (Kamal, 2000).

According to Islamic jurisprudence, in order for *garar* to invalidate a contract certain conditions must be met (Al-Darir, 1997):

(a) The *garar* must be excessive and major, since the majority of scholars are in agreement that minor *garar* does not invalidate a contract.

(b) The contract must be a financial commutative (*muawada*) contract. According to the Maliki school *garar* does not invalidate gratuitous contracts (*tabarrat*).

(c) The *garar* must directly affect the subject matter of the contract such as its price, object of sale or the language of the contract.

(d) The public must be in need of such a contract since the priority of the *shari'ah* is to remove hardship from the people and especially the need of the people. For this

reason, the *shari'ah* validates the *salam* and *istisna* contracts as exceptions in spite of the excessive element of *garar* (Kamal, 2000).

Garar is the cornerstone of the dispute regarding the validity of commercial insurance and is considered as the major argument put forward against its permissibility. The application of the prohibition of *garar* to commercial insurance contract depends on the previous four elements and whether the insurance contract satisfies these criteria or not. According to scholars who invalidate commercial insurance, this contract is a financial commutative (*muawadah*) contract whereby the promise of the payment of the sum insured by the insurer is exchangeable with the payment of the premium by the insured (Baltiji,1987; Hassan,1979; Attar,1983, Mawlawi,1996; Al-Sayed,1986; Al-Salih, 2004). As the commercial insurance contract falls under the head of commutative (*muawadah*) contracts then the element of *garar* in the contract is not acceptable. Moreover, the *garar* and uncertainty in commercial insurance contracts is excessive and does not fulfil the criteria of in excessive *garar*. This argument has been justified by stating that four types of *garar* are present in the commercial insurance contract while the existence of just one of them is more than enough to consider *garar* to be excessive. The first two types are uncertainty in the outcome and existence whereby at the inception of the contract neither the insured nor the insurer knows exactly the outcome of the contract. The insured pays periodical premiums without knowing exactly whether he will get compensation or not since the payment of the sum insured is totally dependent on the occurrence of the risk covered by the insurance policy. Similarly, the insurer does not know exactly how much in premiums will be paid since the payment of the sum insured may be due when the insurer has received only part of the premium. In the third type of *garar*, there is uncertainty in the result of the exchange, and particularly in the amount to be paid to the insured, since the actual compensation may be less than the sum insured because it is dependent on the actual loss. Finally, since the indemnity in a commercial insurance contract is based on a time frame dependent on the occurrence of risk and therefore unknown, particularly for life insurance, there is uncertainty regarding the contract period and this is considered to be the fourth type of *garar*. Therefore, the elements of *garar* in commercial insurance are excessive and do not fall under the criteria of light *garar*. Next, the *garar* in commercial insurance affects directly the subject matter of the contract,

which are a risk covered by a policy, a premium and sum insured as justified above. Furthermore, commercial insurance is not the only available alternative to Muslims for the mitigation of risk since cooperative and mutual insurance exist and lead to the same objective as commercial insurance without any element of *garar* or uncertainty (Hassan,1979; Attar,1983, Mawlawi,1996; Al-Sayed,1986; Al-Salih, 2004). Therefore, it is unacceptable to claim that Muslims are in need of the commercial insurance contract. As can be seen, the *garar* in commercial insurance fulfils all four criteria of prohibition as stated by Islamic jurisprudence, so commercial insurance is not permissible under *shari'ah* law. In addition to these arguments, the commercial insurance contract leads to the benefit of one party at the expense of the other, particularly when no claim is made. In this case, the insurance company will acquire all the profit while the policyholder may obtain none. Therefore, the *garar* in the insurance contract has prejudicial effects and disturbs the balance between the mutual rights and duties of both the insured and insurer (Patel).

In contrast, the scholars who maintain the position of validating commercial insurance contracts have responded to all these arguments. They claim that the insurance system is based on cooperation and solidarity where the insured pays the premiums to participants in the insurance pool in order to help other members if any suffer from unexpected risks which is a virtue encouraged by Allah in the Holy Qur'an (Al-Zarqa, 1962; Al-Khafif, 1966). Moreover, the premium paid by the insured can be considered as the price of peace of mind or security against any stated risk in the policy whereby the exchange takes place between the security which is known and certain against the premium (Al-Zarqa, 1962; Al-Khafif, 1966); Siddiqi, 1985). For these reasons, the insurance contract is a non-commutative (*tarbraat*) contract and as such *garar* is not considered as a matter to disqualify commercial insurance (Al-Zarqa, 1962; Al-Khafif, 1966); Siddiqi, 1985). In addition, the *garar* in the commercial insurance contract is in excessive since both the insured and insurer benefit from the insurance contract at its inception (Al-Zarqa, 1962; Al-Khafif, 1966; Siddiqi, 1985). With regard to the insured, he/she either receives peace of mind or the sum insured if the risk occurs in exchange for the premium he/she pays. Similarly, the company on the collective level utilizes statistical and probability tools which enable it to determine the level of risk and the premiums required to be collected

from policyholders. As a result, the commercial insurance contract is certain and has an immediate benefit for both parties, which leads the *garar* in the contract to be in excessive and null (Al-Zarqa, 1962; Al-Khafif, 1966); Siddiqi, 1985; Ata-allah, 1984). This is stated by Siddiqi: "Here, matters are known and certain at the collective level, though unknown and uncertain at the individual level. It would not be proper to ignore the collective nature of insurance and to prohibit it on the ground of *garar* present at the individual level" (Siddiqi, 1985).

Furthermore, the insurance contract will not lead to a dispute between parties as the insured takes the insurance with full awareness of the uncertainties in the contract (Al-Khafif, 1966, Mudkor, 1975). Finally, it has been claimed that if the *garar* invalidates the commercial insurance contract then it should also invalidate mutual, cooperative and state insurance (Al-Zarqa,1962). The use of the donation scheme as a basis to validate mutual and state insurance *does not stand* (Moghaizel, 1991).

It must be indicated that the dispute between the two groups is due to the fact that the scholars who validate insurance contracts are looking for a relationship between the policyholders as a group and the insurance company in order to examine *garar* in the commercial insurance contract, while the others are concerned with and focus on the relationship between each policyholder as an individual and the company.

In summing, this dispute regarding *garar* continues between the two groups whereby each group responds to the other by providing more evidence to support its arguments.[18]

[18] For more details regarding responses see Baltiji, M. pp. 76-93; Hassan, H.H. pp. 94-125; Al-Sayed, M.Z. pp. 123-139; Al-Salih, M.B.A.B.S. pp. 102-115; Al-Khafif, A. pp. 353-357; Al-Zarqa, M.A. pp. 39-52; Siddiqi, M.N. pp. 39-43; Ata-allah, B.M. pp. 301-305 and Moghaizel, F.J. pp. 193-199.

2.4.2 Insurance and *riba*

According to Ibn Taymiyyh, almost all the prohibitions on financial transactions in Islam can be raised from one of two things: *riba* and *garar (*El-Gamal, 2000). The Holy Qur'an has explicitly and clearly prohibited *riba* in many verses; only one type of *riba* is mentioned which is called *riba al-jahiliya* (Vogel and Hayes,1998). This kind of *riba* had been widely practiced in the pre-Islamic era. *Riba al-jahiliya* in general, is an increase in the principal on the loan in order to extend the term of maturity. In addition, the *Sunnah* elaborated other types of *riba* in the famous Hadith of the Prophet " Gold for gold, silver for silver, salt for salt, dates for dates, barley for barley, and wheat for wheat, hand-to-hand, in equal amount; and any increase is riba".[19] According to the majority of classical scholars' interpretation of this Hadith, there are two types of *riba:*
riba al-fadel and *riba al-nasi'ah. Riba al-fadel* occurs when trading in the same goods, as mentioned in the Hadith, but using different quantities or qualities. In addition, any trading between the goods mentioned in the Hadith where there is a delay, regardless of quality or quantity, is prohibited and considered as *riba al-nasi'ah.*[20]

The scholars who invalidate commercial insurance have introduced the concept of *riba* in three forms: *riba* in investment activities, riba in the commercial insurance contract and *riba* in premium deferred payments.

2.4.2.1 Riba and the investments of the commercial insurance company

The first form is *riba* in the investment activities of the company whereby the commercial insurance company has invested its portfolio in interest-bearing instruments such as bonds, deposits and equities that do not conform to *shari'ah* principles (Baltiji, 1987; Hassan, 1979; Attar, 1983, Al-Sayed, 1986; Al-Salih, 2004). Professor Al-Zarqa,

[19] Muslim
[20] The Islamic law schools are different in investigating whether the prohibition is limited solely to the goods listed in the *hadith* or may be extended to include other genus of these goods. For example, in Hanbili and Hanfi schools categorized goods according to weight and volume, whereby trading in goods that are measured by weight are not acceptable.

who is considered a leading scholar, insisted on the permissibility of the commercial insurance contract but on the condition that all the activities of the company must be free from any element of *riba*. If there is an element of *riba* mixed with the insurance contract then all the activities of the company are prohibited due to the element of *riba* included in the activity of the company but not to the commercial insurance contract itself (Al-Zarqa, 1962). Therefore, there is a consensus among even the scholars who hold the view of the permissibility of commercial insurance contracts to prohibit this contract if it includes any element of *riba* in its activities, especially on the investment side.[21]

2.4.2.2 Riba in the commercial insurance contract

According to scholars who prohibited the commercial insurance contract, it is a commutative contract which includes both types of *riba*: *riba al-fadel* and *riba al-nasi'ah* (Baltiji, 1987; Hassan, 1979; Attar, 1983; Mawlawi, 1996; Al-Sayed, 1986; Al-Salih, 2004). The insurer receives a certain sum of money from the insured in order to compensate the latter with a large amount of money if the specific event stated in the policy will occur. In case of the peril occurring, the insurer will pay a certain lump sum to compensate the insured. This lump sum can be greater, smaller or equal to the total premiums paid by the insured. If this amount is greater or smaller than what the insured has paid (as in most cases), then it is considered as *riba al-fadel* since money is considered as one of the *ribawi* goods mentioned in the *Hadith* and as such the exchange of money with money must be in equal amount. In addition, this arrangement can also be considered as *riba al-nasi'ah* because the exchange of money must happen at the time of the contract and any delay in the exchange is prohibited. If the lump sum paid to the insured is equal to the sum of the premiums, then it is also considered as *riba al-nasi'ah* because there is a delay between the payments of such equal money. Therefore, since the insurance contract includes both types of *riba* it is prohibited under *shari'ah* law (Baltiji, 1987; Hassan, 1979; Attar, 1983, Mawlawi, 1996; Al-Sayed, 1986; Al-Salih, 2004).

[21] Only Sheikh Ali Al-Khafif had doubted that insurance companies invest their money in interest instruments since a lot of insurance companies invest in commercial, services and industrial companies which are excluded from any element of *riba*. Also, he advised the Muslims that if they still have any doubt regarding the investments of commercial insurance companies then they can put a condition in the insurance contract to require the insurance company to invest the premiums in Islamic instruments. As such, if the insurer then invests in *riba*-based instruments the sin will be on the insurer not the insured. See Al-Khafif, A, pp. 479.

On the other hand, the scholars who have validated the insurance contract responded to these arguments and tried to prove that the commercial insurance contract is free from any element of *riba*. Sheikh Al-Khafif made the first argument whereby he elaborated how the insurance contract is free from any element of *riba*. He argued that the intention of the insured when paying the premium is to have peace of mind or security rather than the exchange of money. As such, the exchange happens between the money and peace of mind, which is not one of the six *ribawi* goods mentioned in the *Hadith* (Al-Khafif, 1966). Therefore, the insurance contract is free from all types of *riba*. Moreover, an increase in the amount of compensation compared to the premiums paid by the insured cannot be considered as interest. If this is the case, then it is a debt and the insurer needs to pay back the total amount of premiums to the insured whether the risk stated in the policy occurs or not which is certainly not the concept of insurance or its mechanism (Al-Khafif, 1966; Madkor, 1975). In addition, Sidiqqi has insisted that not every incremental increase is considered as *riba*: "This is a baseless assumption as the *shari'ah* does not regard absolutely every incremental payment as interest. Money paid as a premium is not in the nature of a loan, and the payment of the claim does not amount to returning the loan with an incremental amount that may be considered interest. In the true spirit of it, a premium payment is a kind of cooperative contribution towards the availability of a useful social service" (Siddiqi, 1985). Furthermore, it has been claimed by Al-Zarqa that if the commercial insurance contract is prohibited because the insured pays a small amount and receives a greater amount as compensation, then it is obvious that the mutual and state insurances which are permitted by the scholars should also be prohibited because with these types of insurance the insured also pays premiums and receives back more than he has paid (Al-Zarqa, 1962). Finally, Moghaizel has argued that the commercial insurance contract is free from *riba* since premiums paid by policyholders are considered as a necessary contribution in order to establish the common pool that provides the financial assistance to the policyholders and without this contribution the protection is impossible (Moghaizel, 1991).

2.4.2.3 *Riba* in deferred premium payments

Another important argument put forward by the scholars to invalidate insurance is that the commercial insurance company charges the insured interest if he/she fails to pay the premium at the agreed time. Clearly, this interest is exactly the *riba* which is prohibited in the *shari'ah* (Hassan, 1979; Attar, 1983; Al-Sayed, 1986). On the other hand, as this situation is clearly considered as a *riba*, no argument has been offered by other scholars who permit commercial insurance.

2.4.3 Insurance and gambling (*misir*)

Another view put forward is that commercial insurance is a form of gambling which is invalid under Islamic law. According to this idea, insurance includes an excessive element of risk whereby the insured pays premiums and either wins by receiving the indemnity if the risk happens or loses if the insured event does not occur. Similarly, the insurer wins if it acquires premium and nothing happens to the insured or loses if the payment of the sum has to be made because the insured event occurs. Therefore, the payment of the sum insured as an exchange for the premium paid wholly depends upon chance; this is clearly gambling which is strictly prohibited in the *shari'ah* (Baltiji, 1987; Hassan, 1979; Mawlawi, 1996; Al-Sayed, 1986; Al-Salih, 2004; Melhim, 2002). Moreover, the consequence of this contract will be that one party to the contract will win while the other will lose which is exactly the consequence of gambling (Melhim, 2002).

In contrast, the scholars who validate commercial insurance contracts have highlighted major differences between gambling and insurance. They argue that gambling is a game that is led merely by the financial motivation of winning (Al-Zarqa, 1962; Al-Khafif, 1966, Siddiqi, 1985). In contrast, the intention of the insured is to protect him/her against a loss in the future (Al-Zarqa, 1962; Al-Khafif, 1966, Siddiqi, 1985). Moreover, insurance will not increase the wealth of the insured while with gambling the wealth of the gambler increases if he wins (Siddiqi, 1985). Similarly, when the gambler loses his/her money there is an overall loss while with insurance the insured has gained peace of mind and security (Al-Zarqa, 1962; Al-Khafif, 1966, Siddiqi, 1985). Furthermore, the

gambler is creating a risk which can be avoided while with insurance the risk exists regardless of whether the person is protected by insurance or not (Al-Zarqa, 1962; Al-Khafif, 1966, Siddiqi, 1985). In addition, gambling is wholly dependent on pure chance whereas insurance is based on statistical science used to measure the risk (Al-Zarqa, 1962; Al-Khafif, 1966, Siddiqi, 1985). Finally, the insurable interest requirement in insurance plays a significant role in removing the element of gambling from the contract (Moghaizel, 1991). It should be noted that Professors Al-Dariar and Al-Attar who are against the validity of the commercial insurance contract have insisted that this contract is free from any element of gambling although it does include an excessive element of *garar* (Attar, 1983; Al-Darir, 1997).

2.4.4 Insurance and the principal of free (*Ibaha*) contractual arrangements in islam

The principal *ibaha* regarding free contracts under Islamic law[22] has been used as an argument to validate the insurance contract. It has been said in *shari'ah* law there is no restriction to or harm done by inventing new contracts based on the needs of society (Al-Zarqa, 1962; Al-Khafif, 1966). Therefore, as the commercial insurance contract is a new concept in Islam that is not referred to in classical law and is needed by the people, it does not contravene *shari'ah* principles and is therefore permissible under Islamic law (Al-Zarqa, 1962; Al-Khafif, 1966).

In contrast, this argument is refuted by the scholars who invalidate commercial insurance contracts. They argue that for any new contract to be acceptable under *shari'ah* law it must conform to *shari'ah* principles and not contravene any aspects of the *shari'ah*. Clearly, the commercial insurance contract contravenes *shari'ah* principles since it includes *riba*, *garar*, gambling and other evils and therefore is not valid under *shari'ah* law (Baltiji, 1987; Attar, 1983; Al-Sayed, 1986).

[22] This doctrine is agreed in Hanbali School and especially Ibn Taymiyah. However, the *Ibaha* is subjected to the condition that the new contract is not contravene with any Islamic principals.

2.4.5 The analogy between insurance contract and other islamic contracts[23]

Both those who oppose and those who advocate the permissibility of insurance contracts have drawn an analogy between commercial insurance contracts and other Islamic contracts. The first group has attempted to assimilate the commercial insurance contract into one of the types of Islamic contracts in order to provide evidence that it fits within an Islamic framework and as a result is valid under *shari'ah* law. In contrast, the other group has attempted to compare the commercial insurance contract with Islamic contracts to prove that the former contravenes the rules of the latter and as such is not binding under *shari'ah* law.

2.4.5.1 Insurance and *mudarabah*

Mudarabah (profit sharing) is one of the most respectable contracts in *shari'ah* and is used by Islamic banks. In this contract one party is the capital provide (*rab al-mall*) while the other party (*mudarib*), who is experienced in such matters, invests the money in a venture. The profit of this venture is distributed between both parties based on a pre-agreed profit ratio. The insurance contract is assimilated into the *mudarabah* contract on the basis that in insurance the insured provides the capital in terms of premiums and the insurer acts as the *mudarib* for the insured by investing the premiums on his/her behalf. The sum insured is the profit of the insured while the premiums and any other returns belong to the insurer (Al-Khafif, 1966; Attar, 1983). In contrast, the scholars who advocate the impermissibility of the insurance contract highlight major differences between commercial insurance contracts and *mudaraba*. Firstly, in *mudaraba* the capital is owned by the *rab al-mall* while in commercial insurance the insurer (*mudarib*) owns the premiums and the capital is provided by the insured (*rab al-mall*) (Attar, 1983, Al-Salih, 2004). Secondly, in commercial insurance the profit goes solely to the insurer while the profit of the insured is based on an event that may or may not occur (Attar,

[23] Al-Zarqa had tried to fit commercial insurance with *Ijarah* (leasing) contract but we will not cover this assimilation since the case is entirely different and accidentally similar.

1983, Al-Salih, 2004). Thirdly, it is not acceptable to fix the amount of profit at the beginning of a *mudarabah* contract while in insurance the sum insured and the premiums are pre-determined (Attar, 1983; Mawlawi, 1996; Al-Salih, 2004). Finally, if with a *mudarabah* there is a loss, the *rab al-mall* who is insured should bear the loss.[24] Clearly, with insurance the risk is borne by the insurer not by the insured (Attar, 1983; Mawlawi, 1996; Al-Salih, 2004). For these reasons, the commercial insurance contract is entirely different from a *mudarabah* contract and as such the analogy between these contracts is not acceptable. In spite of these arguments, the *mudarabah* contract has been adopted as a model for some *takaful operating companies* although under a different structure for commercial insurance to satisfy *shari'ah* requirements.

2.4.5.2 Insurance and *salam*

The *salam* is an Islamic contract defined as "the purchase of a commodity for deferred delivery in exchange for immediate payment according to specific conditions" (AAOIFI, 2003). In this contract the element of *garar* is very excessive, but according to the jurists, Islam allows this kind of sale based on its necessity for the public good. It has been claimed that although insurance includes an excessive element of *garar* it should also be allowed under *shari'ah* law, based on the public need for such a contract in the same way as the *salam* contract (Al-Khafif, 1966). In contrast to this argument it has been stated that in spite of the importance of insurance, there is no such need for the commercial insurance contract which contains an excessive element of *garar* and *riba* since there exists an alternative: cooperative and mutual insurance (Hassan, 1979; Attar, 1983; Al-Sayed, 1986; Al-Salih, 2004).

[24] In case there is no any kind of fraud or negligence from mudarid.

2.4.5.3 Insurance and trading in debts and *sarf*

It has been claimed that the commercial insurance contract is a kind of sale of debt for debt, which is strictly prohibited in the *shari'ah* by the consensus of all scholars. According to the definition of commercial insurance, the payment of the premiums is the obligation of the insured while the indemnity is the obligation of the insurer and as such under Islamic law these two obligations are considered as a debt which cannot be exchanged in such a way as to involve differing amounts and periods of time (Baltiji, 1987; Hassan, 1979). Moreover, the commercial insurance contract is like a *sarf* contract whereby the exchange of monies must be done at the time of the inception of the contract and in equal amounts (Baltiji, 1987; Hassan, 1979). However, because of the nature of the insurance contract, it is impossible to exchange the premium paid with the sum insured at the inception of the policy; the insurance contract is therefore invalid under Shari'ah law (Baltiji, 1987; Hassan, 1979).

Employing the arguments discussed in section 2.4.2.2, other groups who validate the commercial insurance contract confirm that such contract is not like *sarf* or the trading of debts and does not include any kind of *riba*. It may be argued that the main reason leading to this conclusion is due to the drawing of a false analogy in order to fit the commercial insurance contract with one of the Islamic contracts when examining its validity (Moghaizel, 1991).

2.4.5.4 Insurance and charitable funds

Some scholars have prohibited all kinds of insurance whether mutual cooperative or commercial and have used *zakah*, *waqf* and other charitable funds to invalidate all types of insurance. They claim that *zakah*, *waqf* and other charitable funds are alternatives to all types of insurance and are adequate to satisfy the needs of the people if given the right attention (Aliyyan, 1978; Abdu, 1987).

2.4.5.5 Other islamic contracts

An analogy has also been drawn between the commercial insurance contract and other Islamic contracts that have a similar mechanism. They argue that contracts such as *ajar daman al-wadiah* (fee on guarantee of deposit) (Attar, 1983), *al-muwalah* (clientage with friendly cooperation) (Al-Zarqa, 1962; Al-Khafif, 1966; Madkor, 1975), *al-aqilah* (blood money), *al-kafalah* (bailment), *dhaman khatat al-tarik* (surety for hazards on the highway) and *al-wa'ad al-mulzim ind al-malikiyah* (promise according to the Malaki school) (Al-Zarqa, 1962) are based on the solidarity and cooperation natural between people as well as practicing the concept of transference of liabilities between Muslims in order to help each other. Moreover, *al-aqilah* (blood money) follows the law of utilizing large numbers to mitigate risk between Muslims. Clearly, all these contracts have common features that are similar to the liability insurance aspects of the commercial insurance and therefore this contract is acknowledged by *shari'ah* (Al-Zarqa, 1962; Al-Khafif, 1966; Madkor, 1975). Furthermore, another contract (*juala*) is used to validate the commercial insurance contract. In this contract, a reward is paid to a non-specific party who carries out a specific task designated by the first party, *e.g.:* " I will pay 100 pounds to anyone who finds my wallet". It is claimed that the insurance contract is like the *juala* whereby the insurer is committed to pay compensation to the insured if the latter has paid the premiums (Al-Misri, 2001). It is also said that although commercial insurance contracts include an excessive element of *garar* it should be allowed in *shari'ah* on the same basis as the *juala*, this being that there is a public need for such a contract, and because the level of *garar* in the commercial insurance contract is equal to or even less than that in the *juala* contract (Al-Misri, 2001).

In contrast, the scholars who invalidate commercial insurance have made a distinction between these cooperative Islamic contracts and commercial insurance. They claim that the comparisons are totally inapplicable since, for example in *al-aqilah* (blood money) there is no contract between groups of people as the intention is mere cooperation between the members of the tribe (Baltiji,1987; Attar,1983; Mawlawi,1996; Al-Salih,

2004).[25] Furthermore, they argue that some of these contracts such as *al-kafalah* (bailment) (Attar,1983), *dhaman khatat al-tarik* (surety for hazards on highway) (Baltiji,1987; Attar,1983; Mawlawi,1996), *al-wa'ad al-mulzim ind al-malikiyah* (promise according to the Malaki school) (Baltiji,1987; Attar,1983; Mawlawi,1996) are gratuitous contracts (*tabraat*) which are entirely different from a commercial insurance contract that is considered as commutative contract (*muawada*). Moreover, *al-muwalah* (Baltiji, 1987; Mawlawi, 1996; Al-Salih, 2004) and *al-kafalah* (Moghaizel, 1991) are permitted only in exceptional cases and are therefore not acceptable for use as a basis for an analogy to validate the commercial insurance contract. With respect to *juala*, it has been claimed that there is a huge gap between the commercial insurance contract and *juala*. In *juala* the payment of reward is wholly dependent upon the task being completed, while commercial insurance is dependent on a specific risk that may or may not occur (Attar, 1983). Moreover, there is certainty of payment of the reward in *juala* while in commercial insurance uncertainly exists since the payment of the premium does not mean the insured will receive the sum insured (Attar, 1983). On top of these arguments, the *juala* contract is valid in exceptional cases because of the need for such a contract and because the element of *garar* in this contract does not lead to inequality between the parties (Moghaizel, 1991).

Moghaizel, who has validated the commercial insurance contract, has summarized the arguments regarding the above-mentioned contracts:" In this latter case it is not a question of identifying insurance to be one of those contracts in order to validate it in Islamic law because the similarities are purely accidental and such contracts were designed for completely different situations and different contexts" (Moghaizel,1991).

2.4.6 Insurance and the principles of *mirath* and *al-wasyah*

It has been claimed that the life insurance policy runs contrary to the principles of *mirath* and *al-wasyah* under *shari'ah*. This is due to the fact that the insured in this policy

[25] To read more details regarding arguments see Attar, A.T. pp. 62-63; Mawlawi, F.pp. 45-47; Baltiji, M. pp. 137-142 and Al-Salih, M.B.A.B.S. pp. 184-188.

nominates a beneficiary according to his preference that may disturb the legal rights of his heirs and as such contravenes both the *mirath* and *al-wasyah* principles (Attar, 1983; Al-Sayed, 1986; Billah, nd).

Under the principles of *mirath* and *al-wasyah* one can freely donate to anybody not more than one third of one's total wealth; if this limit is exceeded then the donation will be in breach of both these principles (Attar, 1983).

In contrast, it has been argued that since the origination of the sum insured paid to the beneficiary is the collective fund managed and owned by the insurer then this sum does not belong to the insured and as such does not fall under the *mirath* and *al-wasyah* principles (Moghaizel, 1991).

2.4.7 Other arguments

It has further been claimed that the life insurance policy is intended to protect the life of the insured against death and therefore is not acceptable under *shari'ah* law as one's death is solely dependent upon Almighty Allah (Billah, nd).[26] Moreover, it is also claimed that commercial insurance leads to negligence (Moghaizel, 1991),[27] murder (Hassan, 1979; Al-Sayed, 1986), is exploitive of people needs (Mawlawi, 1996) and the control of government may fall to powerful insurance companies (Abdu, 1987).

Finally, secondary sources such as *maslahah mursalah* (public interest), *daru'rah* (necessity) and *uruf* (custom) have also been used to validate commercial insurance contracts. As has been seen, there has been much dispute regarding the primary sources such as whether the commercial insurance contract includes *garar* and *riba* and as such it is inappropriate to use secondary sources in order to validate commercial insurance since it cannot operate until there is evidence that it does not contravene the primary sources.

[26] Billah, M. page 4 (reported opinion Sheikh Jad Al-Haq Ali Jad Al-Haq).
[27] Moghaizel, F.J. page 208 (reported opinion Subhi Abdu Hafiz).[28] Only the commercial insurer but not the mutual.

2.5 Conclusion

This chapter has highlighted the validity of the insurance concept as well as the insurance contract in all its forms under *shari'ah* law. As can be seen, Islam wholly accepts the concept of insurance since it is based on the cooperation and solidarity between the parties which is encouraged by the Holy Qur'an, *Sunnah* and many Islamic contracts such as *al-muwalah* and *al-kafalah*. Furthermore, Islam in one of its more vibrant contracts - *al-aqilah*, maintains the use of the law of large numbers to mitigate the risk between the members of Islamic societies and provide them with security. However, a distinction has been made between commercial insurance and cooperative as well as mutual insurance in terms of validity under *shari'ah* law. While cooperative and mutual insurance is wholly accepted on certain conditions by the majority of jurists, commercial insurance is likely to be impermissible under *shari'ah* law. This chapter has also highlighted several arguments that have been used by jurists and researchers during their investigation of the validation of commercial insurance.

Based on the literature review in this chapter, commercial insurance tends to be prohibited under Islamic law for several reasons. Firstly, although a dispute exists at the individual level there is a consensus regarding the prohibition of the commercial insurance contract at the collective level between all bodies. According to *shari'ah* principles the authority of *ijma* (consensus) follows directly after the Holy Qur'an and *Sunnah*. As such, in the case of *ijma* the authority of the jurists' independent judgment tends not to be acceptable. Secondly, even if the permissibility of the commercial insurance contract is accepted, nevertheless the current practices of commercial insurance companies are prohibited under Islamic law according to jurists who have validated commercial insurance. This is due to the fact that the commercial insurance contract is valid on the condition that the activities of the insurance company are free from any element of *riba*. In practice this condition is not fulfilled since all the commercial insurance companies invest their portfolios in non-Islamic instruments. In addition, the commercial insurance contract enables the company to charge the insured an interest if he/she fails to pay a premium on time. Therefore, the likely conclusion is that there is a

consensus between all jurists on the invalidity of current commercial insurance practices. However, the validity of commercial insurance may again become a feasible topic for discussion when the Islamic banks have developed enough Islamic instruments with a competitive return to attract the current commercial insurance companies to fully invest in Islamic instruments. However, the issue of charging interest on delayed premiums remains an issue regarding the validity of such a contract.

Clearly, some arguments that have been used to invalidate the commercial insurance contract do not stand due to a misunderstanding of the commercial insurance contract mechanism, for example when commercial insurance is looked at in terms of gambling, trading in debts or *sarf*. However, other arguments regarding *garar* and *riba* in investment activities and the charging of fees on delayed premiums are more valid arguments for the prohibition of commercial insurance. On the other hand, the analogy drawn by some jurists, in particular Al-Zarqa in order to fit the commercial insurance contract with one of the Islamic contracts also does not stand. This is because the commercial insurance contract is a unique contract and carries a specific feature which is different from the characteristics of any current Islamic contract. However, this analogy is appropriated in order to validate the insurance concept under Islamic law. Finally, the other arguments such as the claim that commercial insurance leads to acts against the will of Allah, protection of the life of the insured, negligence and murder are not binding, and again such contentions are due to a misunderstanding of the insurance mechanism.

A conclusion can be drawn from the foregoing discussion that the current commercial insurance practices are wholly prohibited under *shari'ah* law with there being a consensus between all the scholars, including those who validate the commercial insurance contract. Moreover, as an Islamic alternative to commercial insurance exists it is better to go forward and concentrate more on how to boost this sector and expand its activities instead of struggling and continuing the argument regarding the validity of the commercial insurance contract.

CHAPTER THREE

TAKAFUL MODELS AND IMPLEMENTATIONS, TRENDS AND DEVELOPMENTS

3.1 Introduction

The Islamic insurance industry usually refers to the word *"takaful"* which is an Arabic verb meaning joint guarantees or solidarity. In practice, it can be defined as a pact among a group of participants to jointly guarantee each other against any risk or misfortune in the future (Syarikat Takaful Malaysia, 2002) The Takaful Act 1984 of Malaysia defines *takaful* as "a scheme based on brotherhood, solidarity and mutual assistance which provides for mutual financial aids and assistance to the participants in case of need whereby the participants mutually agree to contribute for that purpose". The first *takaful*-operating company was established in Sudan in 1979 followed by many companies in the GCC and Malaysia. This chapter concerns the existing practices of the *takaful* industry particularly the operational models practiced by *takaful-operating* companies. The models explained in this chapter were explored mainly through the open discussion with *takaful companies'* leaders during the interview. Based on discussions during interview, the author created diagrams for each model which clarified the flow of contributions. Moreover, a distinction was made between general and family *takaful* once each model was reviewed. This was due to difference in the *takaful company's* structure once general or family *takaful* is under investigation. Finally, section (3.3) of this chapter discusses the future trends and prospective for this industry along with a review of the latest developments that have taken place in the *takaful* industry.

3.2 *Takaful* Undertaking Principles

The concept of *takaful* is based on two main principles of mutual assistance that is voluntary provided which is known as *"tabarru"* and segregation between shareholders and participants funds. Regarding the first principle, the contributions paid to the *takaful* pool must be based on *"tabarru"* which means donating or granting. In particular, each participant should donate his/her contribution to the *takaful* fund in order to help the unfortunate members. It should be noted that the concept of donation makes the insurance contract permissible under Islamic law as it is a transferred insurance contract from a buying and selling contract to a gratuitous contract. Accordingly, the concept of donation eliminates the element the prohibited *garar* which exists in conventional contracts. The donation can be full or partial according to the amount required to cover unfortunate participants. If the contributions paid are sufficient to cover all the claims in *takaful* fund(s), then each participant donates partially and can share in the surplus of the fund(s). Otherwise, the contributions are donated fully as all the contributions require covering the claims arising from *takaful* fund(s). In fact, the concept of partial donation is the basis for the distribution of surplus between participants.

The second principal derives from the first principle whereby the concept of mutual assistance and *tabarru* confines the role of the *takaful company* to only manage *takaful* funds on behalf of the participants. For this reason, any *takaful company* is usually called as *"takaful* operator" instead of insurer. This explains the difference between the nature of the relationship between a *takaful company* and its participants compared to that of conventional insurers.[28] While with the conventional insurer the policyholder and shareholders funds are mixed, they must be segregated under a *takaful*-operating company. The segregation of these funds is a very crucial requirement in the structure of any *takaful company* in order to fulfil the *shari'ah* requirements. This is because this segregation leads the *takaful* operator to be the custodian and not the owner of *takaful* fund(s) which removes the element of the prohibited *garar* that has been inherited in the conventional insurance contract. The segregation requires the assets and liabilities of both shareholders and *takaful* fund(s) be segregated from each other at all times. Therefore, the

funds provided by shareholders of the *takaful* operator and the contributions made by participants may never be combined.

3.3 Islamic Insurance Operational Models

There are several *takaful* operational models that have been adopted by *takaful*- operating companies in the world. However, while an adoption of any structure or operation model in conventional insurance is merely a business decision, it is not the only element in the case of *takaful*. In fact, the prospective model that will be chosen by a company must be in compliance with *shari'ah* principles, which is investigated and approved by the *shari'ah* scholars. Nevertheless, it has been observed that some of these models might be accepted from the *shari'ah* perspective in one jurisdiction, while it is not permissible in other jurisdictions. This is attributed to the interpretation of *shari'ah* scholars for each model in different jurisdictions and the concerns they have related to each model. For example, while the *mudarabah* contract is adopted as an operational model in Malaysia by one *takaful* operator, several *shari'ah* concerns are highlighted regarding this model by the scholars in the Middle East, which led to the shrinking of the adoption of this model in the latter region. Furthermore, the scholars in Pakistan criticize the *wakalah* (Agency) model and believe that the *waqf* model is the right model which is recommended to be implemented by the *takaful-operating* companies. In this section, *takaful* models will be explored with a highlight of the flow of contributions under each model for both general and family *takaful*. However, a highlight is done for special cases of the explained models.

3.3.1 General *takaful*

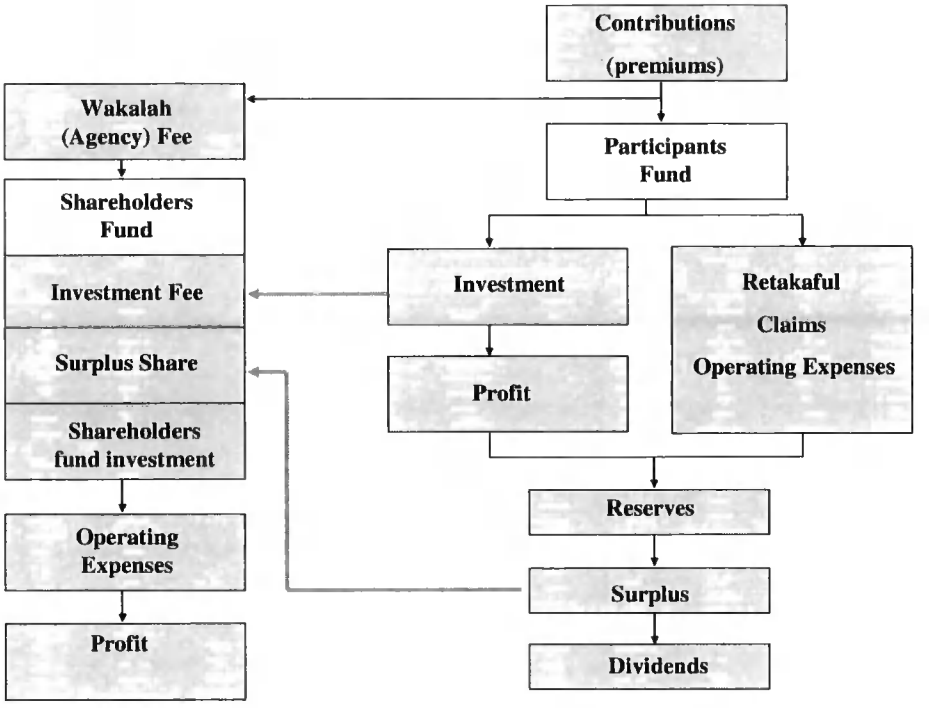
3.3.1.1 Pure *wakalah* model

Under this model, the *wakalah* (Agency) contract is used for both underwriting and investment activities of *takaful* fund(s). Although, the *wakalah* contract has widely been practiced by many *takaful operating companies* in underwriting activities, it is rarely adopted for investment

activities. From the surveyed *takaful operating companies*, *Takaful Ikhlas* in Malaysia is the only company that adopted this model.

With regard to the underwriting activities, the *takaful* operator acts as a *wakeel* (Agent) on behalf of participants to manage the *takaful* fund(s) whereby the operator receives contributions, pays claims, arranges *retakaful* and all other necessary actions related to *takaful* business. In exchange for these tasks, the company charges each participant a pre-defined fee known as a "*wakalah* fee". This fee is front-loaded and calculated as a percentage of contribution paid by the participant. The *wakalah* fee in some jurisdictions should be approved by *shari'ah* Supervisory Board (SSB) and disclose to participants in a very transparent manner (CBB Rulebook, 2005).

Figure 3.1 – The Pure *Wakalah* Model for General *Takaful*



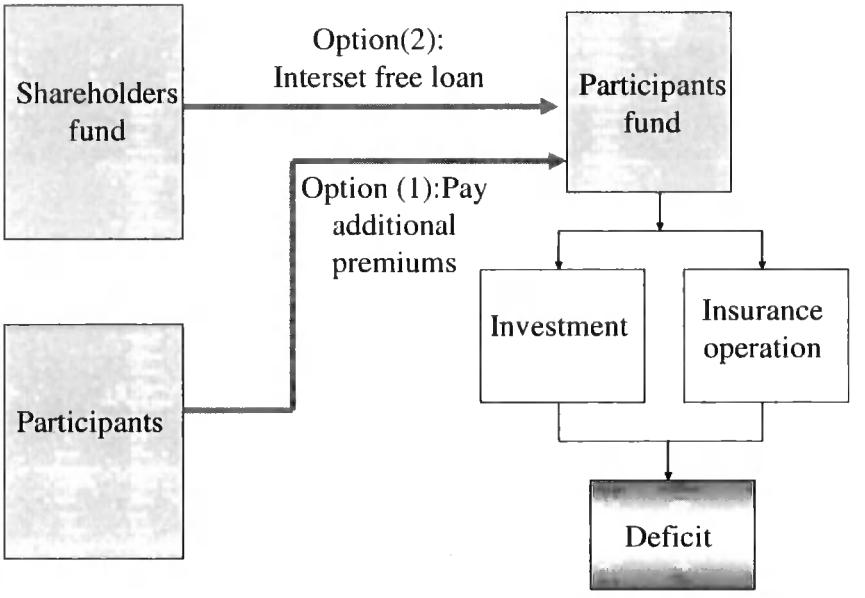
As shown in Figure 3.1, the *wakalah* fee is deducted initially and goes directly to the shareholders fund as an income for the operator. The remaining contributions after deducting the *wakalah* fee is credited to the participants funds. The operator manages the *takaful* fund(s) and pays all the direct expenses incurred by the participants from the

takaful fund(s) such as *retakaful* arrangement cost, legal costs to settle claims and claims incurred. The assets available under *takaful* fund are invested by the operator based on a *wakalah* contract. The participants appoint the operator as their investment manager to perform investment activities of *takaful* fund(s) in exchange of an up-front fee regardless of the performance of investment. This fee is calculated as a percentage of the total assets managed by the operator under the *takaful* fund(s). The income generated from investment-after deducting the management fee for the operator-and underwriting surplus combined together, represents the surplus in the *takaful* fund(s). After that, the operator takes part of the surplus as reserve to strengthen the position of *takaful* fund(s). Any surplus arising from the *takaful* fund(s) is merely the property of the participants, and the *takaful* operator must not share in that surplus according to many scholars. However, some operators are allowed to earn a fee if there is a surplus in the *takaful* fund as an incentive for their effort that has been done to manage effectively the *takaful* fund. This fee is called the "incentive or performance fee" and is determined as a percentage of the surplus generated by the *takaful* fund(s). Nevertheless, scholars are in dispute regarding the legitimacy of the company to charge the participants this kind of fee as many of them have stated that any surplus arising from participants' fund is merely owned by participants. In contrast, other scholars who validate the performance fee have claimed that as the *takaful* operator will provide *qard hassan* to cover any deficit in *takaful* fund(s), it should also be entitled to share in the performance of *takaful* funds as the surplus is a result of good management of *takaful* fund. As a result of the large dispute between scholars, this fee is only adopted by a limited number of *takaful operating companies*. Finally, if there is any surplus after deducting the reserve and share of the company in that surplus, then the remaining surplus should be distributed to the participants. It should be indicated that some companies distribute the surplus for all the participants including those who incurred claims. This is due to the opinion of the *shari'ah* scholars that the operator should treat all the participants equally, including payment of the claims, as one of the main purposes of *takaful* is for the participants to help each other in case of misfortune.

It is important to note that the *wakalah* fee is not dependent on the performance of the *takaful* fund as it aims to compensate the operator for its effort to manage the *takaful* fund

regardless of performance of the pool. It should also be noted that once the *wakalah* fee is charged to the *takaful* fund, the *takaful* operator is not allowed to call on the participants to pay any additional management fee even if the actual cost incurred exceeds the total *wakalah* fee received from participants. Therefore, under this model the *takaful* operator must be careful and give a significant attention to the determination of the *wakalah* fee. In some companies, the *wakalah* fee is declared at the beginning of the contract; however, the loading will be at the year end once the operator knows the actual expense it has incurred. If the total of actual expenses less than the declared *wakalah* fee, then the operator will charge a lower *wakalah* fee than declared and this represents actual cost plus some margin.

Figure 3.2 – The Treatment of Deficit under General *Takaful*



Moreover, due to segregation between participants and shareholders funds, the operator does not directly bear the underwriting deficit arise from *takaful* fund(s). As shown in Figure 3.2, if there is a deficit in *takaful* fund(s) the participants should pay additional contributions to cover such deficits. However, this is not commercially feasible as participants can not be expected to make contributions to cover risks that have already materialized. In practice, usually the *takaful* operator provides *qard hassan* to cover any

deficiency in the *takaful* fund(s), which may be repaid to the operator from the future surplus in *takaful* fund(s). This practice has been a mandatory requirement by some regulatory authorities and in particular the Central Bank of Bahrain (CBB Rulebook, 2005). However, other regulators do not specify this requirement in their regulation but in the practice the *takaful* operators adopted the *qard hassan* option.

As it can be seen, there are three main sources of income for takaful operators under this model which are the *wakalah* fee from underwriting activities, *wakalah* fee for asset management of takaful fund(s) and incentive or performance fee. Also, the operator receives income of the investment of its own capital.

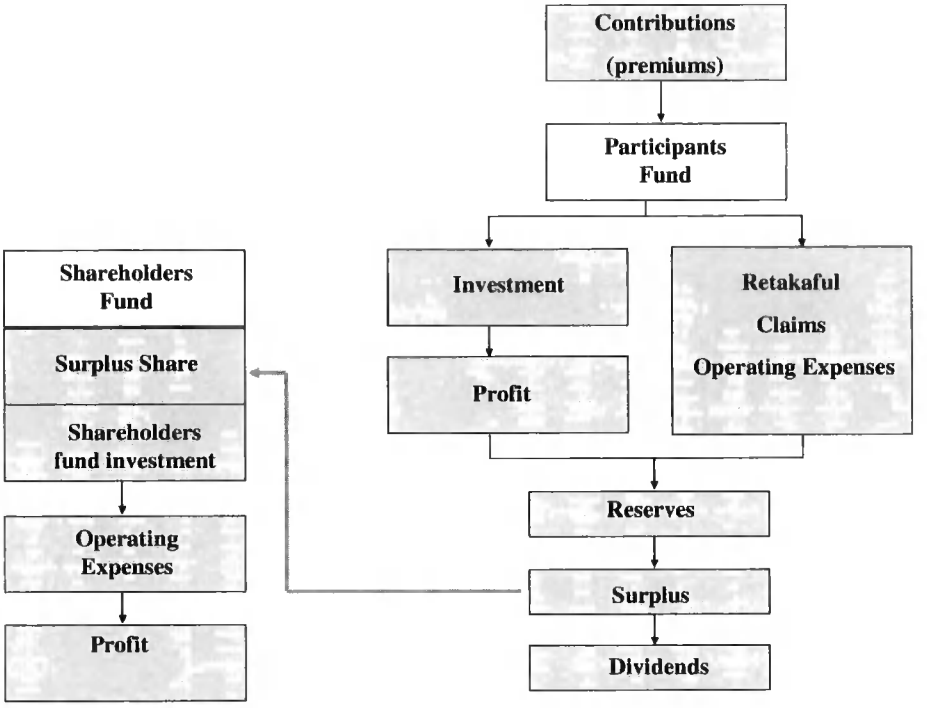
3.3.1.2 Pure *mudarabah* model[29]

This model has been practiced mostly in Malaysia and especially by the two oldest *takaful* operators which are Syarikat Takaful Malaysia and National Takaful Company[30]. Under this model, the operator acts as *mudarib* on behalf of participants who provide the funds in forms of contributions called *rub al-Mall.* The operator and the participants should agree on the profit-sharing rate at the commencement of the *takaful* contract.

[29] Explanation of this model is based on the interview with Syarikat Takaful Malaysia and National Takaful

[30] National Takaful company used to adopt a "modified *mudarabah* model". However, the company has recently shifted to the mixed model, explained later in Section 3.3.1.3.

Figure 3.3 – The Pure *Mudarabah* Model for General *Takaful*



This model is unique in terms that there is only one contract which is the *mudarabah* contract to cover both underwriting and investment activities. This is clearly seen from the flow of contributions under this model in Figure 3.3. Under this model, the contributions paid by the participants are credited to the *takaful* fund without any deduction. Then, all the direct expenses such as *retakaful*, claims payment and other direct expenses are charges to the *takaful* fund(s), while the indirect expense such as salaries and rent are borne by the shareholders fund. The fund available for investment is invested by the operator and nothing will be charged to takaful fund(s). After that, both underwriting surplus and investment profit combine together and the operator shares in the combined total base on a *mudarabah* pre-agreed profit share. Finally, any remaining surplus can be distributed to the participants.

This main distinguishing characteristic of this model is that management expenses which include salaries, rent, staff's sales commissions and all other indirect expenses are borne

by the shareholders fund without an exchangeable up-front fee (Syarikat Takaful Malaysia, 2002). Unlike the *wakalah* model, the operator covers these management expenses only if there is a surplus in the *takaful* fund which will then be shared between them and participants on the pre-agreed ratio. Otherwise, the compensation for these expenses incurred by the operator is likely to be impossible. Moreover, unlike the *wakalah* model, there is only one contract in this model (*mudarabah* contract) which is applied to the final surplus generated from both underwriting and investment activities by the fund(s). Furthermore, while the operator under the *wakalah* model takes the risk that the *wakalah* fee might not cover the actual expenses incurred, the operator under the *mudarabah* model has more risk. In particular, the risk in the *mudarabah* model is more than *wakalah* from the operator is perspective. In the latter model the operator might cover at least some of its management expenses from the *wakalah* fee while in the former model nothing will be covered if there is a deficit in the *takaful* fund.

Beside the fairness of the *mudarabah* model toward participants, some *shari'ah* scholars especially in the Middle East have raised some concerns regarding adopting this model for underwriting activities. The main concern is regarding distinguishing between profit and surplus. While the profit to be shared under *mudarabah* has to be the return over the invested capital, this is not the case in an insurance operation which is generated a surplus that is below the level of capital invested (contributions paid) (Fisher and Taylor,2001). Another concern raised is related to the liabilities of *rab al-Mall* (the participants). The provider of capital under a *mudarabah* contract is not liable to cover any loss apart from the capital invested, which is contradicted by the concept of *takaful*. In *takaful*, if there is any deficit in *takaful* funds then the participants (rab al-Mall) is liable to contribute additional premiums to cover such deficit. The Malaysian scholars and the operator who adopted this model stated that regardless of the name of the contract, the main aim of the operator is to charge the expenses incurred by the operator through sharing in combining income from underwriting and investment activities at the end of each year.[31] They claimed that this model, regardless of the name of the contact used, is more fair for participants compared to a *wakalah* contract.[32]

[31] Interview with Syarikat Takaful Malaysia.
[32] Interview with Syarikat Takaful Malaysia.

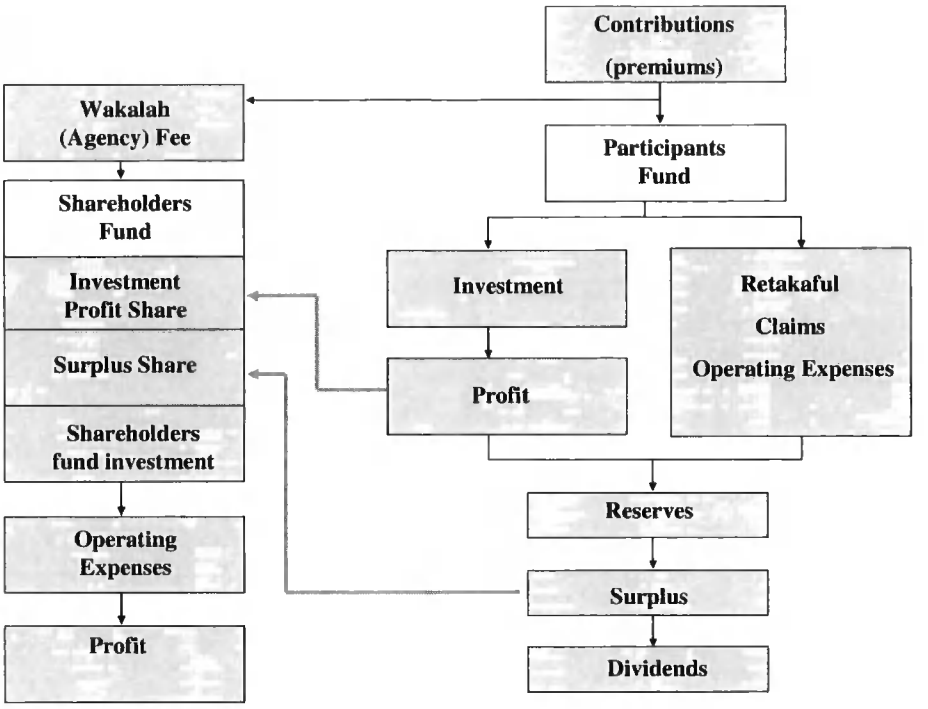
It should be noted the treatment of deficit for *takaful* fund(s) is handled by *qard hassan* in the same way that explained in Section 3.3.1.1. Nevertheless, the operator loses the management expenses which are paid out from the shareholders fund if there is no surplus to be shared in the *takaful* fund(s).

In summary, the operator under this model has only one main source of income which is profit share in the surplus resulting from both underwriting and investment activities. Also, the operator receives income of the investment of its own capital.

3.3.1.3 Mixed model: *wakalah* contract for underwriting activities and *mudarabah* contract for investment activities

This model is the most dominate model in the *takaful* market. This is due to the fact that this model is dominant in the Middle East market and widely practiced by the *takaful operating companies* worldwide. Moreover, this model is recommended by the Auditing and Accounting Organization for Islamic Financial Institutions (AAOIFI) to be used by *takaful* operators (AAOIFI, 2003).

Figure 3.4 – The Mixed Model for General *Takaful*



In this model, a *wakalah* contract is used for underwriting activities while a *mudarabah* contract is adopted for investment activities. As shown in figure 3.4, for the underwriting side the structure and the flow of contributions are the same as we explained earlier in section 3.3.1.1. However, a difference existed on the investment side. The operator used the *mudarabah* contract for asset management of the *takaful* fund(s). Under this contract, the operator acts as *mudarib* on behalf of participants (*rab al-mall*). The operator managed the assets and share in the income generated from the investment based on pre-agreed profit share. This ratio of profit must be agreed upon between the two parties at the inception of contract in order to satisfy *shari'ah* requirements. Unlike the *wakalah*, the operator receives profit once there is a profit generated from investment. Otherwise, the operator will not receive any income. It should be indicated the treatment of deficit for *takaful* fund(s) is handled in the same way as that explained in section 3.3.1.1.

It is concluded that the operator under this model has three main sources of income which are: *wakalah* fee from underwriting activities, profit share in the income generated from asset management of *takaful* fund(s) and incentive or performance fee. Also, the operator receives income from the investment of its own capital.

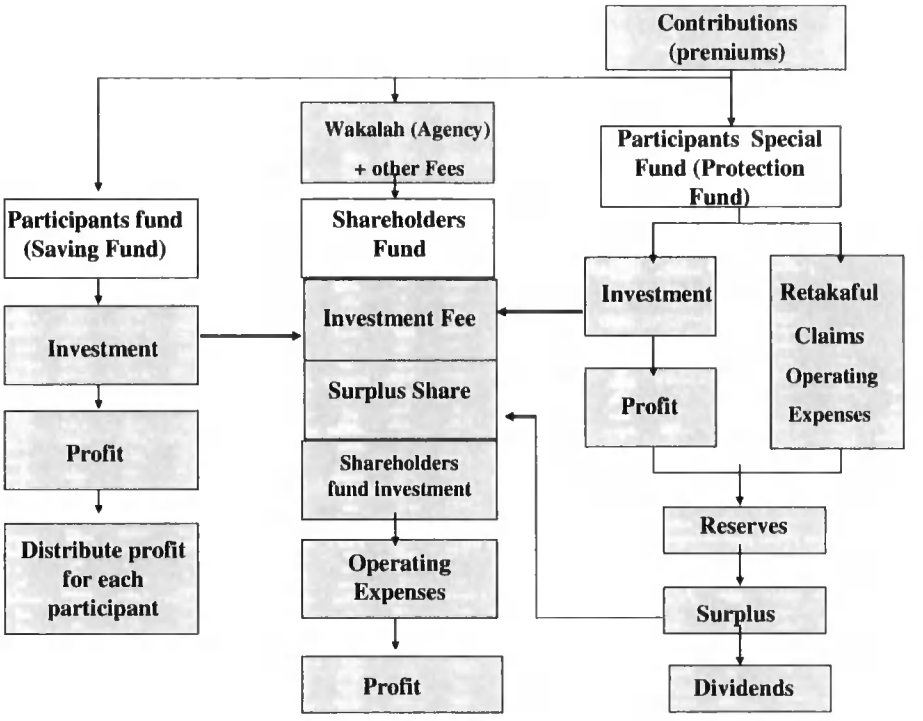
3.3.2 Family *takaful*

The family *takaful* company comprises three funds which are: shareholders fund, participants' risk fund (PRF) and participants fund (PF). The participants' risk fund (PRF) is the risk protection fund to cover the mortality risk for family *takaful* policies while the participants fund (PF) concerns the saving elements of family *takaful* policies. The latter fund does not carry any underwriting risks and is purely focused on investment of savings elements. Therefore, the contribution paid under this fund is not based on donation and it is owned by each participant individually.

3.3.2.1 Pure *wakalah* model

Like the pure *wakalah* model for the general fund, the *wakalah* contract is used for both underwriting and investment activities of the *takaful* funds.

Figure 3.5 – The Pure *Wakalah* Model for Family *Takaful*



The flow of the contributions shown in Figure 3.5 depends on the nature of the family *takaful* policies underwritten. For example, if the policy underwritten is concerned with risk protection from death, then the contribution splits into two parts. The first part goes to the shareholders fund for the *wakalah* fee and the other fees related to the family policy (if any). The remaining contribution credited to the PRF in forms of donations to participate with other members of the pool to protect each other against the death risk. As this is purely a risk protection policy, nothing goes to the PF which is related to the savings part of the family policy. Unlike the risk protection policy, the contribution paid for family *takaful* savings policies is divided into three parts. The first part goes to the shareholders fund for *wakalah* fee and other fees related to the family policy (if any). A small percentage of the remaining contribution goes to the PRF to cover the mortality risk. The remaining contributions which usually represent the large portion of contributions paid are credited to the PF which represents the savings part of family *takaful* policies. As shown in Figure 3.5, the PRF and shareholders funds operate in the same way that the pure *wakalah* model operates which is explained in section 3.3.1.1.

With regards to the PF, this fund represents the savings element of family savings policies and the majority of the investment done on the long-term basis. The *takaful* operator takes a management fee for its effort to manage the investment of PF which is usually calculated as a percentage of total assets managed by the operator under PF.

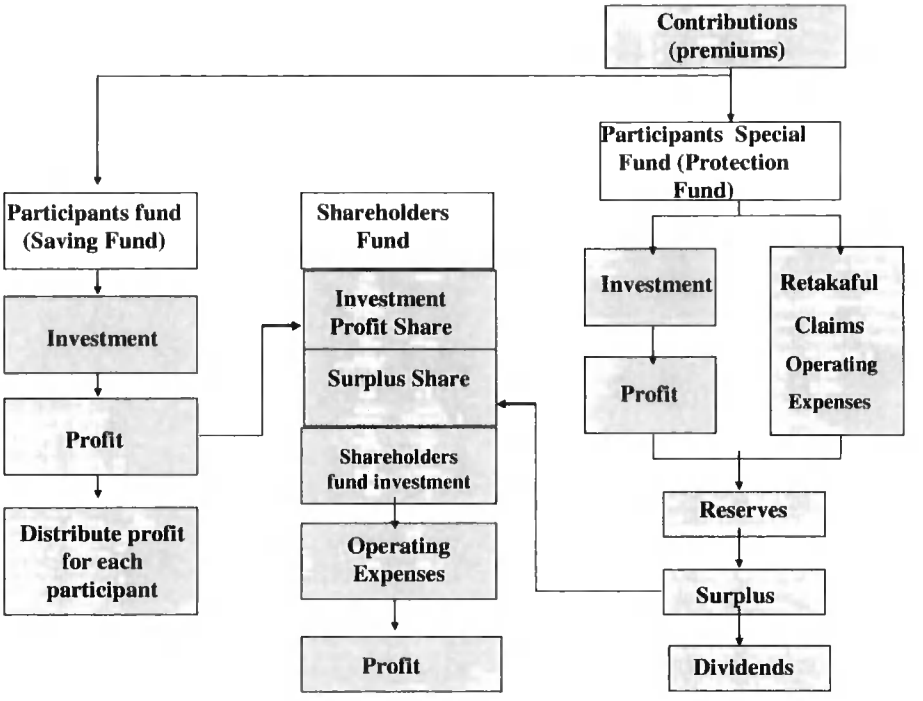
It should be noted that the operator under this model has four sources of income which are the *wakalah* fee from underwriting activities, a *wakalah* fee for asset management of PRF and PF as well as incentive or performance fee. Also, the operator receives income from the investment of its own capital.

3.3.2.2 Pure *mudarabah* model[33]

As shown in Figure 3.6, the shareholder fund and the PRF operate in the same way that the general fund operates for the above-mentioned model which is explained in detail in Section 3.3.1.2 earlier. Regarding the Participants Fund (PF), as this fund does not have any underwriting risk and contains only the savings element of family *takaful*, the operator shares in profit generated from investment activities.

[33] Explanation of this model is based on the interview with Syarikat Takaful Malaysia and National Takaful.

Figure 3.6 – The Pure *Mudarabah* Model for Family *Takaful*



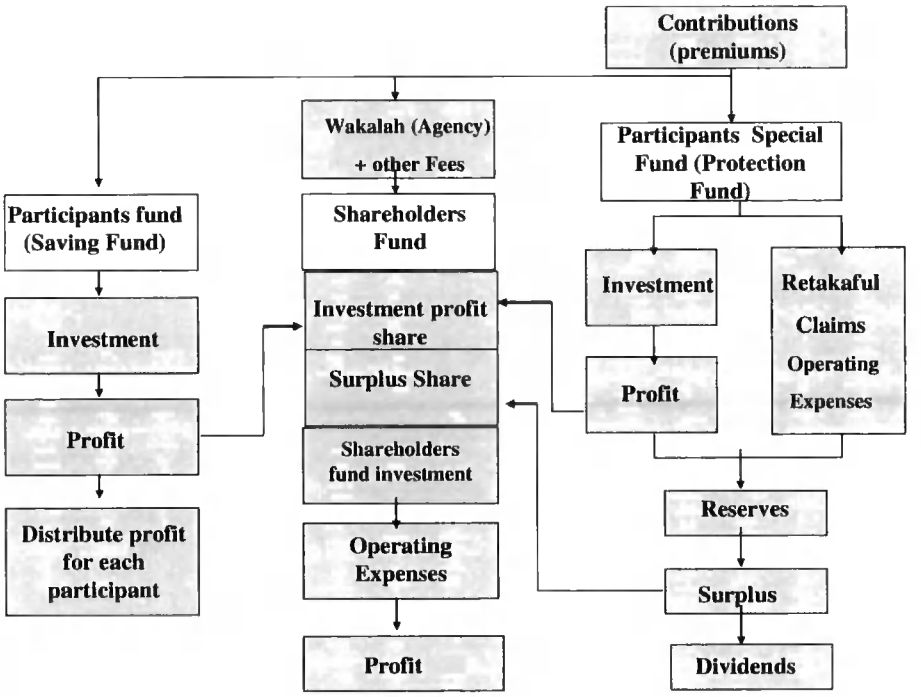
If the *takaful* fund incurs a deficit, then the operator will provide *qard hassan* to cover that deficit and at the same time it loses the management expenses which are paid out from the shareholders fund. This structure is applicable to the General *takaful* fund and PRF.

As it can be seen, the operator under this model has two sources of income which are profit share after combining both underwriting and investment activities for PSF and profit share in the income generated from assets invested under PF. However, some operators under PRF take their profit share from investment activities and leave the underwriting surplus to participants only, even though that the *shari'ah* Supervisory Board (SSB) allows a share of the profits from underwriting. Also, the operator receives income from the investment of its own capital.

3.3.2.3 Mixed model: *wakalah* contract for underwriting activities and *mudarabah* contract for investment activities

As shown in Figure 3.7, the shareholder fund and PRF operates in the same way that the mixed model operates under the general fund which is explained in details in section 3.3.1.3 earlier. Regarding the Participants Fund (PF) which comprises the saving element of family *takaful*, the operator invests the money in this fund on a *mudarabah* basis. Hence, the operator shares in the profit generated from the investment base on the pre-agreed ratio which is agreed upon at the inception of the contract.

Figure 3.7– The Mixed Model for Family *Takaful*



It is concluded that the operator under this model has four sources of income which are a *wakalah* fee from underwriting activities, profit shares in the income generated from investable assets under PRF and PF as well as an incentive or performance fee. Also, the operator receives income from the investment of its own capital.

3.3.3 Other models

3.3.3.1 Sudanese model

The *takaful operating companies* in Sudan have adopted the Mixed model whereby the *wakalah* contract is used for underwriting activities and the *mudarabah* contract for investment activities. The company acts as the manager for the participant's fund whereby it looks after the technical and administrative activities for a fee called the *wakalah* fee. Although the Sudanese Mixed model sounds similar to the model implemented and practiced by *takaful* operating companies in other jurisdictions as we explained earlier in previous sections, in fact it is different. While the other Mixed models charge the *wakalah* fee as a percentage of contributions paid, this is not acceptable by the scholars in Sudan as they consider this practice a kind of *riba* in which the money is grown without any effort by the company (Al-Darir, 2004). Therefore, the *wakalah* fee in Sudan is determine as a lump sum amount which represents remuneration to be paid to the Board members that represent shareholders in the Board of the company. This amount is so negligible when we compare it to the *wakalah* fee charges in other jurisdictions. This practice is required by the Higher Shari'ah Supervisory Council (HSSC) in Sudan which is chaired by Professor Al-Dariar. Most of the HSSC resolutions are usually shaped by the opinion of Professor Al-Dariar, as he is the most influential *shari'ah* scholar in Sudan. Professor Al-Dariar claimed that an Islamic insurance company is like mutual insurance whereby the participants themselves should establish the company and act as the shareholders. However, the existing shareholders in the current Islamic insurance company just need to fulfil the requirements of commercial law to establish a company. He believes that there is no role for capital in an Islamic insurance company apart from the legal requirement to establish the company (Al-Darir, 2004). Therefore, the shareholders are not allowed to share in the surplus of *takaful* fund or to share in the profit from investment activities of *takaful fund.*[34] At the same time, the shareholders' do not bear any risk if there is a deficit in *takaful* fund(s). Unlike other

[34] In 2004, a new *fatwa* was issued by the HSSC allows the Islamic insurance companies to invest the *takaful* fund(s) assets on *mudarabah* basis with a certain conditions that have to be met.

explained model, the shareholders does not provide any *qard hassan* facility for the *takaful* fund(s). If there is any deficit, the operator recourses firstly on the reserves build under the *takaful* fund(s). However, if the reserves are not sufficient to meet the claims, the regulator establishes a central fund to acts as the lender of last resort for *takaful operating companies* in Sudan.[35]

Furthermore, the operators in Sudan are required to have at least two Board members of the company to be elected by the participants. Each year, a general assembly for the participants is required to be conducted to discuss the company's accounts with management and to elect the representative of the participants in the Board of the company.

3.3.3.2 *Waqf*[36] model[37]

This model is a special case of the previous explained Mixed model. The main difference in this model arises from the issue of who owns the contributions paid by participants to the *takaful* fund(s). The scholars supported this model stated that although the participants own the *takaful* fund(s) in theory, in practice this ownership is not recognized by both *shari'ah* and conventional law. A suggestion was made to establish the *takaful* fund(s) as legal entity base on *waqf*. The *waqf* fund is a *shari'ah*-compliant entity, like any corporate entity capable of making its own business decisions. The shareholders make initial donations for creating the *waqf* fund which is reduced from the capital of the shareholders' equity. The contributions paid by the participants are credited to the *waqf* fund and become as a property of this fund. It should be noted that the shareholders do not have the right to the *waqf* fund's capital, assets or profits but rather its job is to make rules for and administer the fund.

In case of deficit in the *waqf* fund, the operator provides *qard hassan* to the fund to cover the deficit. However, the *qard hassan* will be repaid from future surpluses in the fund.

---

[35] Meeting with Mr.Hussain Hamed, Deputy General Manager, Shikan Insurance and Reinsurance Company.
[36] Arabic word means "endowment".
[37] The explanation of this model is based on this article Kaleem, H.*Takaful Based on Waqf: A Pakistani Experience* (2008), International Conference on Cooperative Insurance in the Framework of Waqf 4-6 March 2008, International Islamic University Malaysia.

3.4 Differences between *Takaful* and Other Forms of Insurance

As we can be seen from the previous explanations of structure of *takaful* models, there are differences between *takaful* and conventional insurance. This section illustrates the main differences between Islamic and conventional insurance both commercial and mutual.

3.4.1 Differences between *takaful* and commercial insurance

There are many differences between *takaful* and commercial insurance. The main difference between *takaful* and commercial insurance was observed in nature of insurance contract under each structure. The insurance contract under commercial insurance is an exchangeable contract whereby the policies are sold and the policyholders are the purchasers. Unlike commercial insurance, the *takaful* contact combines both agency or/and profit sharing contracts. In fact, the protection is provided by the *takaful* fund and the role of the company is to manage the *takaful* fund. Moreover, the difference in the structure is led to the differences between two forms of insurance in terms of liability toward underwriting loss. The commercial insurance company is liable to cover underwriting loss and to pay any claims arise since they sell this promise to the policyholders. However, as the *takaful* operator role confined to manage underwriting and investment activities of *takaful* fund, the *takaful* fund which is owned by the participants bears all the underwriting losses. Therefore, in case of loss, the *takaful* operator has the right to ask participants to pay additional contributions to cover this underwriting loss. As indicated earlier, in the practice *qard hasan* is provided by the *takaful* operator to cover underwriting loss in *takaful* fund. There are also other differences which are summarized in Table 3.1.

Table 3.1 Comparison between *Takaful* and Commercial Insurance

	Takaful	Commercial
Contract	Hybrid structure with a combination of donation and Agency or profit-sharing contracts.	Exchange contract: buying and selling contract whereby policies are sold and the policyholders are the purchasers.
Company	As the shareholders act as Agent on behalf of participants, the company is called "operator" instead of insurer.	Relationship between policyholders and company is on one to one basis.
Underwriting loss	The *takaful* fund is owned by participants who bear the underwriting risk.	The shareholders bear the underwriting risks.
Insurer	*Takaful* operator acts an agent. If there is a deficit in takaful funds, operator is expected to provide *qard hassan*.	Insurer is liable to pay the insurance benefits as promised from its assets.
Contribution/Premiums	As the cover paid is based on donation, the money paid is called "contributions".	The money paid to buy the cover called "Premiums".
Payment of Contribution/Premiums	The contributions are owned by *takaful* fund(s). The contribution can be in forms of full or partial donation to *takaful* fund(s).	The premiums paid by policyholders are owned by the company.
Ownership of Contributions/Premiums	Contributions owned by participants as the *takaful* funds belong to them on a collective basis and managed by operator	Premiums paid owned by the insurer.
Delay in payment of Contribution/Premiums	The operator cannot charge interest.	Interest charge on late payment of premium.
Insurance Risk	Shift risk from participants to *takaful* pool.	Shift risk from policyholders to shareholders.
Surplus and reserves	Underwriting surplus owned by participants collectively through *takaful* fund.	Reserves and surplus own by insurer.
Investment	Assets of *takaful* funds and shareholders fund must be invested in *shari'ah*-compliant assets.	There is no restriction apart from those imposed by the regulators.
Regulation	The statutory regulation for *takaful* may vary from conventional in certain areas in some countries such as Bahrain and Malaysia. Also, a Shari'ah Supervisory Board is required to be established.	Statutory regulation.
Accounting	One balance sheet and two income statements, one for shareholders and the other for participants. In some counties, The Auditing and Accounting Organization for Islamic Financial Institutions (AAOIFI) standards are required to be adopted.	One balance sheet and income statement for the company.
Reinsurance	The contribution should be ceded to retakaful operating companies. However, due to the absence of good rating retakaful operators, the *shari'ah* scholars allow the takaful operating companies to cede to the conventional reinsurance companies but on net basis.	The premiums are ceded to reinsurance companies.

3.4.2 Differences between *takaful* and mutual insurance

As shown in Chapter 2, mutual insurance is acceptable to the *shari'ah* scholars provided that the assets of the mutual insurer invested are *shari'ah*-compliant assets. However, there are main differences between *takaful* and mutual insurance. The mutual insurance company is owned by the policyholders who are also the provider of the capital. Although the *takaful* fund under *takaful* structure is owned by the participants, the capital is provided by the operator. Although the premiums/contributions are owned by policyholder/participants under both structures, the existence of operator under *takaful* structure makes the cost of protection under *takaful* more expensive than mutual since the operator is seeking profit from insurance business. There are differences between *takaful* and mutual are summarized in Table 3.2.

Table 3.2 Comparison between *Takaful* and Mutual Insurance

	Takaful	**Mutual**
Contract	Hybrid structure with a combination of donation and Agency or profit-sharing contracts.	A risk-sharing contract between individuals insured and the pool of insurance.
Contribution/Premiums	Premiums owned by policyholders. However, there is an operator-seeking profit from insurance business.	Premiums owned by policyholders. However, there is no other party demanding a share of the profit.
Purpose for establishing company	The *takaful-operating* company establishes to maximize profits for shareholders except in Sudan.	Establish to provide policyholders with low-cost insurance and not to making profit.
Control of the company	The Board of Directors is elected by policyholders who own the mutual company. Policyholders have the rights to change the management and Board of Directors.	The Board of Directors is elected by shareholders who own the operating company. However, participants own the *takaful* fund. Participants do not have the rights to change the management and Board of Directors.
Access to capital	Access to share capital by *takaful* operator and Islamic financing instruments.	No access to share capital, but access to debt with possible use of subordinated debt.
Investment	Assets must be invested in *shari'ah* compliance instruments.	No restriction apart from those imposed for prudential reasons.
Management	Takaful operator	Management appointed by the policyholders
Capital	Takaful operator provides set up capital for company and takaful fund.	Initial premiums paid by the policyholders

3.5 Trend and Developments in the *Takaful* Industry

The *takaful* industry has been registering a substantial growth during the last four years. The total contributions underwritten by the *takaful*-operating companies worldwide amounted US$2 billion by the end of 2006. There are between 100 (Fupuy et al,2008) to 133 (Ernest and Young,2008) *takaful* operators in the world, including *takaful* windows. The GCC market is the largest market for the *takaful* industry and represents 50% of the *takaful* global market as at end of 2006. According to the World Takaful Report 2008, the outlook for the *takaful* industry is outstanding. The global *takaful* industry is expected to maintain growth rates of 20% per annum in the future and estimated to reach US$10 to 15 billion within the next ten years (Ernest and Young, 2008). There are several factors fuelling the growth of the *takaful* industry. Firstly, assets held and financed by the Islamic financial institutions are increasingly motivated to use *takaful* (Ernest and Young, 2008). Secondly, the economic and demographics are two factors that would see the demand of *takaful* products soar (Ernest and Young, 2008). The Islamic countries, and particularly the GCC countries, have a young population which will increase demand on *takaful* products to protect themselves against risks and to provide financial security for their families. Moreover, in countries other than the GCC, the government does not provide vast social security benefits. Even in the GCC, the governments are looking to several approaches of reducing the burden on their fiscal budgets arising from benefit being paid out to their growing population. This will force the population to save more for the future especially through annuity and saving plans. Thirdly, the increase in cost of education which is becoming a greater priority for the people should also raise demand on savings products for children's education. Fourthly, compulsory insurance is being introduced in many Arab countries and particularly the GCC market which will further open up the market for *takaful* products.

Another factor that would cause *takaful* growth to soar beyond the expected growth rate is the ability of *takaful operating companies* to underwrite the large risk. The majority of existing operators are focused on personal lines business and leaving the large risk segment to the conventional reinsurers. This is due to the lack of capacity and specialist

underwriting expertise of *takaful* operators which leads to leakage of *takaful* business to conventional industry. This leaves a huge potential for a strongly capitalized local *takaful* and *retakaful* entity with leading expertise in large risk specialty underwriting.

Furthermore, the distribution of surplus by *takaful*-operating companies to the participants would attract some non-Muslim customers to buy *takaful* products. This was proven in some countries such as Malaysia and Sri Lanka.

The *takaful* industry has been gaining attention from major international insurance and reinsurance players during the last two years. Many of the leading conventional insurance and reinsurance companies established either subsidiaries or windows for *takaful* such as Munich Re, Swiss Re, Hannover Re, American Insurance Group, Allianz SE. Also, many other international leading firms are in the process of studying the best way for them to tap into this growing niche market such as Lloyd's. Moreover, several *takaful*-operating companies were established in the GCC with a larger capital to cater for the growth of this industry and expand across the Middle East. From the regulatory perspective, the Islamic Financial Services Board (IFSB) has been playing a leading role toward developing international standards for the *takaful* industry. The effort was started by publishing a working paper in coordination with International Association for Insurance Supervisors (IAIS). The papers highlighted the areas for the international standards that need to be adopted to cater for *takaful* structures such as corporate governance and solvency margins. Followed by that, the IFSB created a working group to focus on drafting a standard for corporate governance for *takaful* operators. This standard is expected to be published by the end of 2008.

3.6 Conclusion

This chapter outlines the existing models that are adopted by *takaful*-operating companies. A convergence is observed in the market toward implementing of the Mixed model. Many *takaful*-operating companies have moved from other models to the Mix model such as National Takaful in Malaysia and Qatar Islamic Insurance Company. Moreover, the debate of the best model acceptable by *shari'ah* is in decline as the focus shifts towards developing the other areas of the *takaful* industry. The researchers and practitioners should focus on challenges facing the *takaful* industry such as innovative products, building *retakaful* capacity, asset management and marketing channels for *takaful* products instead of debating about the legitimacy of using *mudarabah* or *wakalak* models. Moreover, the prospect for this industry is expected to be tremendous as explained in the Section 3.5 in this Chapter.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

This chapter outlines all aspects of the research methodology and methods utilized in conducting this study that could help the reader to understand the research design, data analysis and interpretation.

Although the current literatures in the Islamic insurance field are limited, a brief discussion of some shortcomings on existing research is included in the second part of this chapter. The shortcomings of the existing research led the author to design the objectives of this study with the aim of avoiding any repetition of the conclusions of the previous studies.

In order to address the research questions, objectives and hypotheses of this study, which will be discussed in detail under section (4.4) of this chapter, a combination of both quantitative and qualitative strategies was implemented. The rationale for choosing the "triangulation" method as a combination strategy is addressed in section (4.3) of this chapter. The research was designed to collect data by using both the cross-sectional and longitudinal frameworks. The longitudinal framework was adopted to achieve the first objective of this study, while the cross-sectional framework was used to achieve the second objective. Furthermore, the research methods, which include the study's questionnaire, and structured and unstructured interviews, is presented with special reference to their structures and the ways that validity and reliability were tested. The data analysis tools including the statistical tools are also discussed.

An important aspect of research methodology is the sampling which is highlighted in Section (4.6) of this chapter. As this study attempts to explore the investment portfolios

of *takaful* undertakings in the GCC and Malaysia, the author, therefore, attempted to target the representative population in these countries through purposeful sampling. However, due to certain difficulties, which are explained in the sampling strategy section, this was not possible to achieve.

4.2 The Methodological Shortcoming of Existing Research Studies

The existing research studies in the field of Islamic insurance and particularly the investment side have been facing several difficulties regarding the research methodology. Several factors have contributed to this methodological shortcoming which can be broken down into two elements. The first is the lack of an appropriate detailed official investment database on the industry. In many countries, the investments of shareholders' and participants' funds are combined and are very difficult to separate in order to study the investment composition of each fund.[38]

The detailed separation between the shareholders, general and family funds is very crucial in order to study the investment composition behaviour as the liability nature in each fund is different which as a result might lead to a different investment strategy for each fund. For example, a conclusion was made from a pervious study that the *takaful* investments undertaking in GCC are heavily invested in equities; however, this conclusion might be wrong as some of the *takaful operating companies* invested their shareholders' funds in equities rather than participant's funds (Fisher, 2005; Jaffer, 2007).

Although some sources segregate shareholders' and participants' funds in terms of investment, the numbers of *takaful operating companies* that provide such data is small and the breakdown of the asset classes is also limited. A second factor contributing to the shortcoming of existing research is inconsistency of existing investment data that leads some of the researchers to consolidate this data from the takaful company's annual

[38] AAOIFI only required *takaful operating companies* to segregate income statement and not the balance sheet.

reports which are subject to different accounting standards and which make consolidation of this data inappropriate.

4.3 Research Strategy

A multi-strategy research approach known as "triangulation" (Bryman, 2004) has been employed in this study in order to achieve the designated objectives and hypotheses. The term triangulation refers to the combination of quantitative and qualitative research strategy under one study whereby the data gathered by the former strategy can be reinforced by the latter strategy. The reasons behind adopting this strategy can be broken down into three elements. The first element is the utilizing of qualitative data to facilitate the interpretation of the quantitative data as the type of the data gathered may give the statistical picture and some areas need to be clarified. For example, while we have seen many *takaful* undertakings in GCC investing their short-term portfolio in investment accounts rather than *sukuk*, the justification for this behaviour was known only through the qualitative method (interview).

The second element concerns the nature of the study. As this study is exploratory in nature, the qualitative approach enriches the study by allowing the interviewers to express their feelings and opinions in order to understand what is going on in the *takaful* industry. Thirdly, as the official data and literature for the field of this study is very limited, there is a need to validate the gathered data, which was achievable by using the qualitative data to confirm the validity of the assembled quantitative data.

4.4 Research Questions, Objectives and Hypotheses

The primary research questions of this study along with their related objectives and hypotheses have been identified to address the research problems shown below.

4.4.1 Exploration of investment portfolio composition

Question (1):

What was the investment portfolio composition of *takaful* undertakings during the last four years (2002-2005)?

Question (2):

Does the investment portfolio composition of shareholders fund, general fund and family funds in *takaful* undertakings differ in GCC and in Malaysia during the years 2002 to 2005?

In pursuing these questions, the following objective was identified:

Objective (1): To explore the asset classes comprising investment portfolio composition of shareholders fund, general fund and family funds of *takaful* undertakings in GCC and Malaysia.

In order to achieve this objective, explorations and comparisons were done for investment composition portfolio of shareholders fund, general fund and family funds in both GCC and Malaysia. The results of this objective are presented in the empirical chapter 5.

4.4.2 Desired and actual investment portfolio composition

Question (3):

Do *Takaful* undertakings desire to change the current composition of their investment portfolios as of the year 2005?

In order to answer the forgoing question, the following objectives and hypotheses were identified:

Objective (2): To compare the actual and desired level of the investment portfolio composition of shareholders fund, general fund and family funds between GCC and Malaysia.

- **Hypothesis 2.1:**

  There is no significant difference between the actual and desired levels of composition of shareholders fund investment portfolio in GCC and Malaysia.

- **Hypothesis 2.2:**

  There is no significant difference between the actual and desired levels of composition of general fund investment portfolio in GCC and Malaysia.

However, due to the negligible business of family *takaful* in the GCC, the third hypothesis is confined to Malaysian *takaful* undertakings.

- **Hypothesis 2.3:**

  There is no significant difference between the actual and desired levels of composition of family funds investment portfolio in Malaysia.

For the purposes of the study conducted, under the family *takaful*, the participants' special (risk) fund and the participants' investment fund are in fact combined under one fund called the "*family funds*". The reason for combining them was the difficulty in segregating the data for these funds as the IT system used by many *takaful operating companies* cannot provide the needed detailed information accurately. In any event, in terms of size, the investment fund largely dominates the mortality risk fund, and moreover the latter risk is long-tail.

4.5 Research Design

The research design and method are crucial steps toward achieving the objectives of any research. The fundamental difference between the two concepts is that the former concerns with the framework chosen to collect the data, while the latter focuses on the techniques to be implemented to gather data (Bryman, 2004). In this section, the research design is discussed in detail while the research method adopted is discussed later in section 4.7.

There are different research designs used in social research; among them are the cross-sectional and longitudinal designs, both of which were adopted in this study. The cross-sectional framework design gathers information at a single point in time, while the data gathered over a period of time is associated with the longitudinal framework. The adoption of both the framework designs in this study was very important due to the nature of the objectives that the study targeted to achieve.

Although the cross-sectional design has been widely used in social research, the longitudinal design is rarely adopted due to the time and costs involve (Bryman, 2004). However, due to the nature of the data that needed to be collected which included data over a period of time, this framework was employed to collect the data required to address the first objective of this study. The first objective aims to explore the portfolio of *takaful* undertakings over a period of time from 2002 until 2005, which lead the longitudinal framework to be the most appropriate design to be used. In contrast, the second objective of the study targeted to measure more than one case at a single point of time, namely 2005. Therefore, the most appropriate framework to gather data to address these objectives was the cross-sectional.

This study is also designed as a comparative research in terms of comparing the investment portfolio composition between GCC and Malaysia.

4.6 Sampling Strategy

As this study is an exploratory study, the country selection was based on where the *takaful operating companies* have concentrated and where *takaful* histories exist. The *takaful* markets are primarily domicile in the Middle East and Far East countries. The first *takaful* company was established in Sudan in 1979 followed by others which were established in GCC and Malaysia. As per *takaful re* report, the majority of *takaful operating companies* in the world are concentrated in GCC, Malaysia and Sudan. Also, the Islamic finance industry has been established in these regions where it continues to be the hub for this industry. Therefore, these countries were chosen to be the focus of this study. However, due to the difficulties faced in gathering the required information from

Sudan[39] and the economic conditions in this market being really different from other selected countries, a decision was made to exclude Sudan from the sample countries. Furthermore, although the Saudi market is the biggest insurance market in the GCC, the coverage of this country in this study was not being targeted at the time of conducting this study due to several factors. First, at the time of the study, regulations did not exist in Saudi Arabia and all the companies operating in this market were either unregulated or registered as an offshore company in the Kingdom of Bahrain.

Secondly, the *takaful operating companies* in Saudi Arabia are classified into three categories which are small *takaful operating companies*, companies whose acting as a captive for the owners, and divisions under existing banks without legal separation. The companies falling into the second category which is related to captive companies were excluded due to different characteristics of these companies and also due to the fact these types of companies are not targeted by this study. For the first and third categories, two companies were selected, which were given the questionnaire to complete. The findings confirmed that for the insurance divisions under existing banks, investment portfolio do not exist (question 8 all are blank) and is managed by the bank itself and appears in the bank's consolidated balance sheet. With regards to the smaller *takaful operating company*, there is only a small investment portfolio under the shareholder's fund and a negligible amount under the participant's fund. In addition, two meetings were conducted with both companies from first and third categories and the outcome from these meetings confirmed that both companies are not conducive to achieving the designated objectives for this study. In the light of all above-stated arguments the Saudi market was excluded from the population of this study.

Furthermore, the study covered the *takaful operating companies* in targeted markets which have operated for at least two years. This is due to the fact that other companies, which do not fall under the mentioned conditions, are not conducive to achieving the first objective of this study.

[39] Two *takaful operating companies* from Sudan filled the questionnaire and the quality of the data provided did not satisfy the research requirements.

4.6.1 The sample size

As the number of *takaful operating companies* in the targeted market is relatively small, the study aimed at covering the whole population. In order to generate the population, we contacted the supervising authorities and requested them to provide a list of the operational *takaful operating companies* in the market, except in Qatar where there is no direct connection with the Ministry of Commerce. For the Qatar market, we used the Arab Reinsurance Company Directory as an official source to get the list of *takaful operating companies*. Table 4.1 below summarizes the population for these markets:

Table 4.1: Summary of Coverage of the Study in Terms of Number of *Takaful Operating Companies* in each Country

	Country	Covered in the survey and interview	Comments
1	Bahrain	2	Covered 100% of the operating companies in the market
2	UAE	3	Covered 100% of the operating companies in the market
3	Qatar	1	Covered 90% of the *takaful* market in the country
4	Kuwait	3	Covered 90% of the *takaful* market in the country
5	Malaysia	3	Covered 90% of the *takaful* market in the country
	Total Covered	**12**	

As can be seen from Table 4.1, the study has covered the whole population of the targeted market except in Malaysia and Qatar. In each of these two markets, there is only one operating company, which was not covered due to the difficulties faced to collect the required information. However, these companies are very small and represent only less than 10% of the total *takaful* market in both countries, respectively.

In total, twelve companies were covered to fill the questionnaire, and also selected for the interview schedule. One company from Kuwait was excluded after the interview conducted with the company as it was not able to provide the required information. Table 4.2 provides a list of all covered and excluded companies in the targeted market with the reasons to be excluded:

Table 4.2: List of the Names of *Takaful Operating Companies* that are Included and Excluded from the Study

No.	Country	Companies Covered	Companies Excluded	Reason to be Excluded
1	Bahrain	Solidarity Islamic Insurance & Assurance	AIG *Takaful*	Under formation*
2		*Takaful* International Company B.S.C.	Aman Insurance and Reinsurance	Under formation*
3	Kuwait	First *Takaful* Insurance Company	Gulf *Takaful* Insurance company (2004)	Established in 2004 but has only one year of operation
4		Wethaq *Takaful* Company	National *Takaful* Insurance Company (2003)	Information can not be provided bu the company
5	Qatar	Qatar Islamic Insurance Company Q.S.C.	Islamic *Takaful* Insurance Company	No contact with this company
6	United Arab Emirates	Abu Dhabi National *Takaful* Company P.S.C.		
7		Dubai Islamic Insurance & Reinsurance Company P.S.C. (AMAN)		
8		Islamic Arab Insurance Company P.S.C. (SALAMH)		
9	Malaysia	Syarikat *Takaful* Malaysia	MayBan *Takaful* Berhad	Has not responded to the questionnaire
10		*Takaful* National	Prudential BSN *Takaful* Berhad	Under formation*
11		*Takaful* Iklas	MAA *Takaful* Berhad	Under formation*
			HSBC Amanah *Takaful* (Malaysia) Sdn Bhd	Under formation*
			Commerce *Takaful* Berhad	Under formation*
			Hong Leong Tokio Marine *Takaful* Berhad	Under formation*

* Under formation during the conduct of the field work of the study.

Of all the eleven *takaful operating companies* who filled the required questionnaire, only three companies (all from the GCC) refused to provide any information regarding question 9 relating to the desired portfolio. The reason might be lack of motivation or that the person in the company who filled the questionnaire did not devote enough time to provide all the required information.

4.7 Research Methods

Regarding the research method, the study employed the *triangulation* method to gather data. Both the emailed pre-structured questionnaire and structured and unstructured interview techniques were employed for collecting data. In order to overcome the shortcomings of the existing research as mentioned in section 4.2 and to achieve the research objectives, a pre-structured questionnaire was designed to collect the required data.

The pre-structured questionnaire has several advantages to add to this study. Firstly, the gathered data is very big and retyping it would be time-consuming as well as increasing the possibility of mistakes in re-entering data. Secondly, it also makes the filling of the questionnaire easier as the Excel sheet could be linked to the main information system of the company. Thus advantage of the pre-structured questionnaire is to give a consistent data in a structured format across *takaful operating companies* for the purpose of analysis.

The required data in the questionnaire are detailed and might be considered by some *takaful operating companies* as sensitive information, since this detailed information required has not yet been published by any body be it regulator, rating agency or other data sources, which makes it primary data. Therefore, in order to achieve the cooperation of the *takaful operating companies*, the regulatory authorities for the insurance sector in the sample countries –except Qatar- had been approached for their approval and to ask

the *takaful operating companies* under their supervision to cooperate to fill the required questionnaire.

After the regulator coordinated with the companies, the questionnaire was sent by email to the nominated person in the company who was either the finance manager or financial controller or investment manager. This approach was very successful and all the *takaful operating companies* cooperated and had given their full attention to the study and were very kind and patient in filling the questionnaire and answering any inquires relating to the study.

Due to the previous experience that we had with *takaful operating companies*, the questionnaire could be filled quickly while the company is busy with its daily business and accordingly the quality of the data might be affected. Therefore, to avoid this as well as to eliminate the possibility of misunderstanding of questions by *takaful operating companies*, a mix of structured and unstructured interview was also conducted with each company after receiving the questionnaire response. The purpose of the interview is to verify the data collected and to inquire about any certain trend or data.

The regulatory authorities would also approach to arrange the required meetings with the *takaful operating companies* to conduct the interviews. For Qatar, we contacted the company through one of the Chief Executive Office of a *takaful company* in Bahrain who introduced the author to them. With regards to the interview, the structured interview technique was adopted in order to standardize the interview questions that address the study objectives across all companies.

4.7.1 The questionnaire

The questionnaire in this study, a sample of which can be found in Appendix A, was confined only to the quantitative questions and all qualitative questions were discussed under the interviews. For question 9, we benefited from the questionnaire prepared by Mr. Amir Jassim about factors influencing life insurance companies' investment decisions in the US market.

The questionnaire was divided into three major sections comprising of nine questions as follows:

- **Part one:** General information about each *takaful operating company* was gathered through seven questions in this part, such as the name of the company, branches, capital, number of employees, *takaful* model adopted and total contributions underwritten by the company, broken down into general and family contributions.

- **Part two:** This part consists of one question (question 8) addressing the distribution of *takaful operating companies* investment portfolio among Islamic asset classes from 2002 till 2005. For each year, the shareholders, general and family funds were segregated and required to provide detailed data for each fund. Also, the asset classes were divided into short-term (maturity one year or less) and long-term (maturity above one year). Fourth asset classes were given under short-term which are cash, investment accounts, sukuk (both corporate and government) and conventional products; for the long-term six asset classes are required which are *sukuk* (both corporate and government), equities (both quoted and unquoted), real estate investments, investment in subsidiaries, mutual fund/unit trust and conventional products. The return on investment portfolio was also required to be provided for each fund per year. The data collected in this questionnaire was required to address the first objective and question of the study.

- **Part three:** Question 9, the only question in this part, focused on the desired investment portfolio of *takaful operating companies*. In this question, nine asset classes were identified which are long-term government *sukuk*, long-term corporate *sukuk*, quoted equities, unquoted equities, mutual fund/unit trust, real estate investments, one year or shorter instruments and conventional products. The details of asset classes were asked to be provided for shareholders, general and family funds on an individual basis. The responses of this question was used to determine the level of desired investment portfolio for each fund and then

compare it with the actual investment portfolio data gathered from question 8 in order to address the third question and the second objective of this study.

It is worth mentioning that the reason behind adding the conventional products to asset classes was to ascertain if any *takaful operating company* had invested in these products and the reason, which led to such investment.

4.7.1.1 Validity

Validity refers to the concept of testing whether the research instrument that has been used measures what it is supposed to. The validity is a very important aspect of the social research as it is "concerned with the integrity of the conclusions that are generated from a piece of research" (Bryman,2004). In order to ensure the validity of the study's questionnaire, several actions were taken. Firstly, a cross-checking approach has been used to validate the quantitative data. Once the questionnaire was received, different totals were compared with each other to ensure the consistency of the data across the questionnaire. Also, we inquired by telephone conversation with the concerned persons in the companies surveyed about any inconsistency of information or sudden trend such as a company having family *takaful* contributions in question 7; however, nothing appears in the family fund investment portfolio in question 8. Secondly, the qualitative data gathered by the interview was utilized to validate the quantitative data through cross-checking of the outcome of the same variable. Furthermore, the interview was conducted with a different person than the one who filled the questionnaire in order to cross-check opinion and data between both of them. However, with four companies we were not able to meet with different persons inside the company due to the business engagements that these companies had. Thirdly, the questionnaire was reviewed by several expert professionals in the Islamic finance field such as Prof. Riffat Abdul-Karim and Dr. Taha Al-Tayed, and all the issues and comments raised were taken into consideration before conducting the pilot study which includes:

- In question 9, the 'government *sukuk'* and 'corporate *sukuk'* asset classes categories were replaced with 'long-term government *sukuk'* and 'long-term corporate *sukuk'*, respectively. As a result, the short-term government and corporate *sukuk* will come under the 'one year or shorter instruments'.

- Some wordings were changed in question 9.

4.7.1.2 Pilot study

After establishing the validity, two *takaful operating companies*, one from Bahrain and the other from Kuwait, were chosen as samples for the pilot study in order to improve the structure of the questionnaire, ensure the clarity of the questions and to ensure that the questions stated in the questionnaire were really addressing the designated research's questions, objectives and hypotheses. As a result, the following actions were taken:

- Question 8 was divided into four funds: shareholders, general, participants (saving pool) and special participants (risk pool). However, after the pilot study, we recognized that the current system implemented by *takaful operating companies* cannot provide this required detailed information about the family fund. Therefore, the participant fund and participants special fund has been classified under on category, which is the family fund.

Finally, the annual reports of *takaful operating companies* were used to validate the questionnaire data. However, not all the data was cross-checked with the annual reports data because some of information in the questionnaire was not reported in the final accounts of the companies.

4.7.1.3 Reliability

An important process of research design is to ensure the reliability of the instrument that has been used. Reliability is concerned with consistency and stability of the results of the

study once the same instrument is used under constant condition on all occasions (Bryman, 2004). Due to the nature of the data gathered and the small sample size which affects the normality of the data, it was not possible to apply the reliability test.

4.7.2 Interviews

The interviews were employed in this study as a means of ensuring the credibility of the data provided in the questionnaire, as they were conducted after collecting the survey questionnaires. This provided the author with an opportunity to discuss the gathered information with the respondents and to inquire and justify any certain trend in the data that needed to be justified. The mix of structured and unstructured questions was used in this study. The study inquired about specific common trends for the companies and their opinion regarding regulation of shareholders funds through structured questions in the first part of the interview. However, the second part of the interview was kept open for the author to inquire about specific trends in each company and also to allow interviewees to express their feelings and opinions in addition to gathering their experience to enrich the findings and understand what really is going on inside these companies.

All the twelve companies were interviewed at either Chief Executive Officer level or Investment Manager level or in some companies both of them at the same time. The interviewed companies were: two from Bahrain, three from UAE, one from Qatar, three from Kuwait and three from Malaysia. It should be noted that the interviewed companies were the same companies which completed the questionnaire as well.

4.7.2.1 Interview questions

As shown in Appendix B, the interview comprises two parts. The first part which is the structured interview part consists of two questions. One is related to the regulation of shareholders funds and the other concerns the general trend by *takaful operating companies* of investing on short-term basis in investment accounts rather than *sukuk*. The second part of the interview was kept for open discussion and for certain trends that

related to a specific *takaful company*. There are a series of questions, which vary from company to company depending on the investment behaviour of each company.

4.7.2.2 Validity and reliability

An internal validity measure was established by conducting the interview after gathering the quantitative data in order to match findings between the two methods. This helped to understand the nature of the company, some facts about its business and the structure of its investment portfolio, and rendered an opportunity to question any response that was given by the interviewee. Therefore, the figures challenged their position whereby they were given the right feed back to encourage them to answer in a proper manner.

With regards to the reliability, all of the interviews were recorded and the results were reported and analyzed later.

4.7.3 Difficulties faced during data collection

The first difficulty that faced the author could be ascribed to the relative length of the questionnaire and the number of questions that had to be answered by the sample companies. Apart from the length of the questionnaire, the detailed required information and breakdown between shareholders', general and family funds investment portfolio was not available in certain companies and a substantial effort was required from them to generate these data. After gathering data, it took a big effort to follow up with the company regarding verifying data as many of them were really busy with their daily business. The second difficulty was the cost of conducting interviews with these companies as it needed travel to different countries in the Gulf and the Far East. Also, the cost to follow up with these companies in different countries was an issue to the author.

4.8 Data Analysis

The data obtained from the questionnaire was analyzed by utilizing Microsoft Excel 2003 and Statistical Package for Social Science (SPSS) Version 15 programmes. However, all the interviews were recorded and for each company the responses were written in

individual worksheets and then entered into a comparison sheet that addressed only one issue as required thematic analysis.

Once the questionnaire data was received from the sample companies, several items were cross-checked to ensure the accuracy of the data. After checking the accuracy of the data, we consolidated the information for all companies, GCC and Malaysian, by using the pre-designed Excel programme for the consolidation of the data, which was developed by the author. Then, a matrix was built into the Microsoft Excel programme and the coding was done for all the variables for the purpose of the analysis. Finally, the data in the matrix with its related variables were exported to SPSS Version 15 for analyzing the data using descriptive and inferential statistics.

The descriptive and inferential methods were employed in this study to analyze the data at two stages as follows:

Stage 1: Descriptive Statistics

- Measures of Central Tendency – Mean.
- Measures of Variation – Standard Deviation and Coefficient of Variation (%)

Stage 2: Inferential Statistics

- Involves the testing of the formulated hypothesis as with the defended tests as depicted in table 4.3.

Table 4.3 Univariate Tests based on Level of Measurement for Hypothesis Testing

Univariate Tests	Level of Measurement	Parametric Test	Non-Parametric Test
Two Independent Samples	Interval	T-test	Mann-Whitney U Test
	Ordinal		
Two Dependent (Matched or Paired) Samples	Interval	T-test for Matched Pairs	Wilcoxon Signed Rank Test T
	Ordinal		

Parametric tests assume that certain assumptions about the parameters are satisfied, such as normality, the data are at least continuous or interval level of measurement and data has sufficient or adequate large sample sizes. Otherwise, the equivalent non-parametric tests should be applied as the results from these are more powerful than applying parametric test when assumptions are not satisfied. Small sample sizes usually restrict researchers from applying parametric tests as the data tends to be skewed (either to the left or right) due to extreme cases indicating non-normality. Therefore, given that the sample in this study is small in as much as the population is also very small and the data are not normally distributed, the non-parametric statistical tests for the inferential analyses have been implemented.

The data obtained from the questionnaire included two types of level of measurements which are 'nominal' and 'interval'. The 'nominal' variables were purely used to categorize arbitrary geographical groups such as GCC=1 and Malaysia=2. Otherwise, all other data gathered by all the questions are classified as 'interval'.

4.9 Statistical Techniques

The statistical techniques used in any research depend on the identified hypotheses, number of observations and the measurement level used in collecting the data. Regarding this study, the statistical techniques used for descriptive and inferential reasons are described below.

4.9.1 Measures of central tendency

The mode is used for nominal data, the median for ordinal data and the mean for interval data. However, this study used the mean to measure central tendency and it was used to calculate a unitless measure of variability.

4.9.2 Measures of variation

The main techniques used to measure the variation are Standard Deviation and Coefficient of Variation. The Standard Deviation is the average measure of variability of each observation from the mean. The Coefficient of Variation is the ratio of the standard deviation to the mean multiplied by 100% which is a unitless measure. The study used standard deviation and Coefficient of Variation to measure differences between *takaful operating companies* toward investment in each asset class in the investment portfolio.

4.9.3 Statistical test for two independent samples: Mann-Whitney U Test

The Mann-Whitney U Test is the most widely-used significance non-parametric test for comparing two independent samples. The test compares two independent samples by testing the hypothesis of no difference. A finding of significant difference indicates that the two samples differ on the variable of interest. Although the t-tests are more powerful and preferable to detect true difference between groups, this statistical test cannot be used due to the non-normality of the data collected. The p-value, which is listed as [2*(1-tailed Sig)] in the SPSS, show that the two-tailed probability for the two samples differed for 95% level of confidence when compared to be less than the normal cut-off of 0.05. However, since this study is pioneering exploration with a minimal sample size less than 20, the cut-off or level of significance (α) had been raised to 0.10.

Assuming that the companies in GCC are independent from those companies in Malaysia, the above test was used to search out statistically differences between the companies in both regions mentioned in terms of invested products in the investment portfolio, for each fund in each surveyed year, in order to address the first objective of this study.

4.9.4 Statistical test for two dependent samples: Wilcoxon Signed Rank Test

Wilcoxon Signed-Rank Test is a non-parametric test equivalent to t-test for two dependent samples when the variable of interest is continuous and the data does not satisfy normality. However, it is more powerful than the Sign test (another nonparametric test for two dependent samples) because it takes more information into account. Specifically, the Wilcoxon test factors in the magnitude as well as the sign of the paired difference. The null hypothesis of no significant differences at *95%* confidence level between the two samples is rejected when the p-value is less than 0.05. However, the cut-off or level of significance (α) had been raised to 0.10 due to the nature of this study.

This test was entirely used to address the second objective of this study by checking the difference between the level of difference between the actual and desired investment portfolio.

4.10 Qualitative Technique of Data Analysis

The study employed the interpretative method for analyzing the qualitative data gathered by interviews. In this method, the subject matter of the study is interpreted from the prospective of the people studied (Bryman, 2004). Therefore, the study tried to understand investment behaviour by word of mouth from management on how they are handling investment strategy for the company.

4.11 Conclusion

This chapter outlines the research methodology from which derives the results of the study. It explains and describes the design and the methods adopted by the author in this study with the reasons and criteria behind the selection.

As this study is an exploratory study, the author decided to choose the triangulation strategy by combining both quantitative and qualitative strategies together. In fact, the qualitative data was used to validate the quantitative data. The quantitative data was collected through a questionnaire which consisted of three parts. However, a mix of structured and unstructured interview techniques was used to collect qualitative data.

The study covers eleven *takaful operating companies* of which eight were from the GCC and three from Malaysia. Although the number of chosen *takaful operating companies* was small, they were dominating *takaful markets* in both regions at the time conducted this study.

The results of the study are presented in the next two chapters while the discussion of findings is segregated into a later chapter. Chapter five presents the result of the first objective of this study while chapter six presents the result of the second objective. The analysis and discussion of the results of the two objectives of the study is performed under chapter 7.

CHAPTER FIVE

INVESTMENT PORTFOLIO OF *TAKAFUL* UNDERTAKINGS IN THE GCC AND MALAYSIA: EXPLORING THE INVESTMENT BEHAVIOUR OF *TAKAFUL OPERATING COMPANIES*

5.1 Introduction

The different structure of *takaful* in contrast with conventional insurance, requires special attention once an investment strategy is under investigation. In particular, the investment strategy for each of the funds under the *takaful* structure, which are shareholders, general, participants special fund (risk protection part for family *takaful)* and participant's fund (savings part for family *takaful*) should be individually studied. The rationale for this is due to the nature of liabilities under each fund which would require a different investment strategy or composition. For the purpose of the study, under the family *takaful*, the participants' special fund and participants fund are combined under one fund called "Family funds". The reason for combining them was due to the difficulty in segregating the data for these funds as the IT system used by many takaful operating companies cannot provide the needed detailed information accurately.

The first objective of this study aims to explore the asset classes comprising investment portfolio composition of shareholders fund, general fund, and family funds of *takaful operating companies*. To achieve this objective, explorations of composition were performed for each of the funds mentioned and the results are presented. The focus of this chapter is to present the results of the first objective while the discussion and analysis of these results are tackled in chapter seven.

Under each of the above-mentioned funds, explorations were made on the composition of the investment portfolios by using both descriptive and inferential analysis for each asset class in the portfolio. For the descriptive analysis, description of the changes during years

of the study and coefficient of variation (%) were utilized to measure differences between companies. However, for the inferential analysis, the Mann-Whitney U Test was performed to determine significant differences between portfolio composition for each asset class in each of the three funds between *takaful operating companies* in the GCC and Malaysia. As this is an exploratory study, the confidence level used to determine the significant relationship for the above-mentioned non-parametric test was at set at 90% confidence level. It should be indicated that, under family funds investment portfolio, the presentation of the data was confined only to Malaysian *takaful operating companies'* investment portfolio. This was due to the fact that the Malaysian companies dominated the overall family funds investment portfolio while GCC *takaful operating companies* had negligible contribution.

5.2 Total Investment Portfolio of *Takaful Operating Companies* for All Funds

Overall total investment portfolio of *takaful operating companies* for all funds amounted to US$ 2.3 billion at the end of 2005 compared with US$ 1.0 billion at the end of 2002, an increase of 130% during the years of the study. As shown in Figure 5.1, for all the years of the study, Malaysian companies dominantly contributed to the total overall investment portfolio. The contribution of the GCC companies to the overall investment portfolio gradually increased reaching a maximum composition of 36.5% by the end of 2005.

Figure 5.1
Comparison between Size of Investment Portfolio for Shareholders, General and Family Funds in GCC and Malaysia– US$ Million

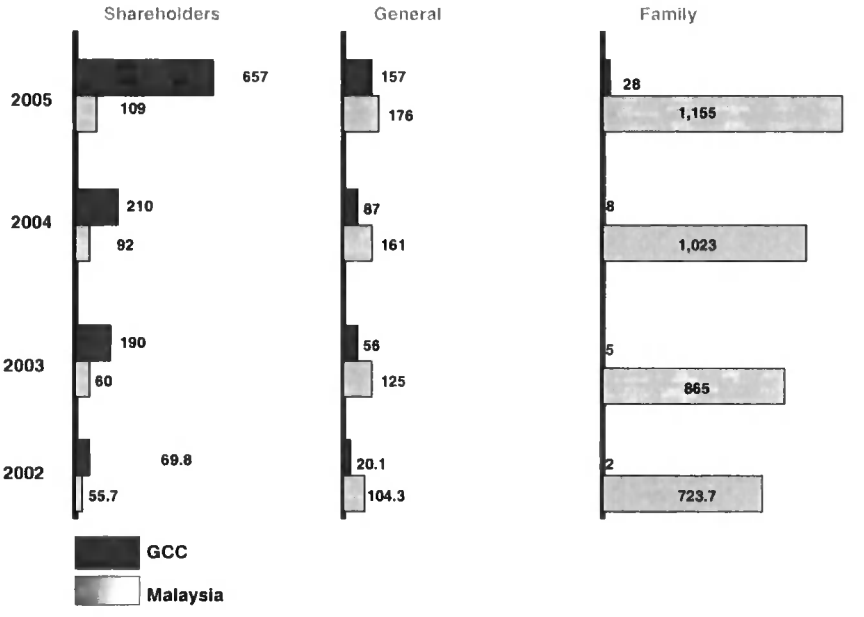


Figure 5.1 summarizes the comparison of the sizes of investment portfolios for each of the funds between GCC and Malaysia from 2002 to 2005. The comparison shows that family *takaful* investment portfolio was the main source contributing to the Malaysian *takaful* operating companies' overall investment portfolio, while the shareholders fund was the main contributor to GCC investment portfolio. With regards to the general fund, the GCC and Malaysian companies had contributed almost the same to the overall investment portfolio. The composition of each fund is discussed in detail in the following sections, with special emphasis on the comparison of the two groups: GCC and Malaysia.

5.3 Shareholders Fund

Over the entire period of the study, total shareholders fund investment of *takaful operating companies* had been increasing with an average growth of 91.3%. The highest growth was in 2005 by 154% from US$301.6 million in 2004 to US$766.1 million in

2005 due to the dramatic increase in investment accounts, equities and investment in subsidiaries by 150%, 150.9% and 2225.3%, respectively.

Table 5.1: Composition (%) of Shareholders Fund Investment Portfolio

Asset classes	2002	2003	2004	2005
Cash	1.4	0.2	1.3	1.0
Investment accounts	36.9	52.4	38.0	37.4
Sukuk	3.7	1.9	4.1	2.2
Equities	29.2	19.2	25.2	24.8
Real estate investments	19.7	8.9	8.4	4.0
Investment in subsidiaries	0.7	0.4	2.4	21.6
Mutual funds/unit trusts	3.4	14.8	19.0	8.4
Others	5.0	2.2	1.6	0.6

Composition of the shareholders fund investment portfolio is shown in Table 5.1. The two dominant asset classes from 2002 to 2005 were investment accounts and equities which both represented an average of 65.8% of the total shareholder fund investments portfolio. The third major asset class in the shareholders fund investments varied from real estate (19.7%) in 2002 to mutual funds/unit trusts investment in 2003 and 2004. However, the investment in subsidiaries (21.6%) became the third major assets class in 2005. It should be indicated that the three major asset classes represented more than 80% of total investment portfolio for the shareholders fund in all years of the study.

Table 5.2: Composition (%) of Shareholders Fund Investment Portfolio – GCC *versus* Malaysia

Asset classes	2002		2003		2004		2005	
	GCC	MY	GCC	MY	GCC	MY	GCC	MY
Cash	2.9	-0.5	0.0	0.9	1.0	2.1	1.0	0.6
Investment accounts	37.0	36.8	55.7	41.8	33.9	47.6	35.7	47.6
Sukuk	0.0	8.4	0.0	7.8	1.2	10.8	0.4	13.4
Equities	36.9	19.5	19.8	17.5	29.9	14.3	26.9	12.5
Real estate investments	18.4	21.2	5.5	19.5	6.5	12.7	2.3	13.9
Investment in subsidiaries	0.0	1.6	0.0	1.5	0.6	6.3	24.1	6.6
Mutual funds/unit trusts	4.8	1.7	19.0	1.5	26.9	1.0	9.6	0.9
Others	0.0	11.3	0.0	9.5	0.0	5.2	0.0	4.5

A comparison was made to explore the differences between the GCC and Malaysian *takaful* operating companies in managing the shareholders fund investment portfolio. As presented in Table 5.2, investment accounts are the first major asset class for *takaful operating companies* in both the GCC and Malaysia. In Malaysia, the investment accounts had shown an increasing trend and accounted to almost 48% of the total by the end of 2005, compared with 35.7% in the GCC. While the first asset class was the same for *takaful operating companies* in GCC and in Malaysia, the second asset class was different in these groups. Investments in equities represented the second component of invested portfolio of shareholders fund in the GCC over the entire period of the study. In contrast, for Malaysian *takaful operating* companies, real estate investments were the second major asset class, except in 2004 wherein equities was placed the second. The third asset class fluctuated in both the GCC and Malaysia. In the former group, the investment in mutual funds tended to be the third major asset class while in the latter group the fluctuation was between investment in equities and *sukuk*. Moreover, as shown in Table 6 Appendix B, both GCC and Malaysian *takaful operating companies* invested in investment accounts and cash on short-term basis. In contrast, a difference was seen between the two groups on the long-term bases. The *takaful operating companies* in GCC invested mainly in equities and mutual funds/unit trusts. However, the equities, *sukuk* and real estate investments were used as primary asset classes by Malaysian *takaful operating companies*.

5.3.1 Investment accounts

The shareholders fund of *takaful operating companies* had US$286.7 million investment accounts with banks at the end of 2005, compared with US$46.3 million at the end of 2002, an increase of 519.2%. However, in 2004, there was a decrease in investment accounts by 12.5%.

Table 5.3: Volume and Composition (%) of Investment Accounts in the Shareholders Fund Investment Portfolio

Year	US$ Million	Composition
2002	46.3	36.9%
2003	131.2	52.4%
2004	114.7	38.0%
2005	286.7	37.4%

With regards to the composition, the investment accounts composition had been steady in the range of 35.5% and 37% of the total shareholders fund investment portfolio with the exception in 2003 where there was a big jump in investment account composition that accounted 52.4% of the total. The Coefficient of Variation (CV) for this asset class showed lower variation between *takaful operating companies* in investment accounts during the years of the study.

Table 5.4: Volume and Composition (%) of Investment Accounts in the Shareholders Fund Investment Portfolio – GCC *versus* Malaysia

Year	GCC		Malaysia	
	US$ Million	Composition	US$ Million	Composition
2002	25.8	37.0%	20.5	36.8%
2003	106.0	55.7%	25.2	41.8%
2004	71.0	33.9%	43.8	47.6%
2005	234.9	35.7%	51.8	47.6%

As shown in Table 5.4, the investment accounts held with Islamic banks in Malaysia showed an increasing trend from US$20.5 million in 2002 to US$51.8 million in 2005, an increase of 152.7%. Similarly, the composition of this asset class increased from 36.8% of total to reached 47.6% during the same period. Unlike in Malaysia, the volume and composition of investment accounts in the GCC fluctuated during the years of the study. A major increase in this asset class was observed in 2003 followed by a decrease in 2004. Moreover, as shown in Table 8 in Appendix B, in both groups almost all the investment accounts were held on a short-term basis. Finally, the difference between GCC and Malaysia in terms of investment accounts composition was examined statistically by using the Mann-Whitney U Test. The statistical test result showed no significant difference between these groups in terms of investment accounts composition at 90% confidence level during the years of the study.

5.3.2 Equities

As shown in Table 5.5, investment in equities, the second largest assets class, had increased dramatically from US$36.6 million at the end of 2002 to US$190.4 million in 2005, an increase of 420% during the years of the study. The major increase in equities was in 2005 by 150.9% due to the increase in unquoted and quoted equities by 291.9% and 77.4%, respectively. The increase in unquoted equities was primarily due to investments made by GCC *takaful operating companies*.

Table 5.5: Volume and Composition (%) of Equities in the Shareholders Fund Investment Portfolio

Year	US$ Million	Composition
2002	36.6	29.2%
2003	48.2	19.2%
2004	75.9	25.2%
2005	190.4	24.8%

In terms of composition, equities showed fluctuations during the period of the study and accounted for 24.8% in 2005, compared with 29.2% in 2002. Majority of the

equities investments were quoted equities listed on the stock exchanges. As shown in Table 11 in Appendix B, the contribution of quoted equities to the total equities portfolio increased from 56.4% in 2002 to reached 65.7% in 2004. However, in 2005, for the first time during the entire period of the study unquoted exceeded quoted equities investment and comprise 53.5% of the total equities portfolio. This was mainly due to the dramatic increase in unquoted equities investment by 291.9% in 2005 which reached to US$101.9 million, compared with US$26 million in 2004. This substantial increase was largely due to some *takaful operating companies* in the GCC which invested mainly in new start-up companies. However, there was difference between *takaful operating companies* toward investment in unquoted equities as shown by CVs for unquoted equities. As presented in Table 15 in Appendix B, the CV for unquoted equities was larger than the CV for quoted equities.

Table 5.6: Volume and Composition (%) of Equities in the Shareholders Fund Investment Portfolio – GCC *versus* Malaysia

Year	GCC		Malaysia	
	US$ Million	Composition	US$ Million	Composition
2002	25.7	36.9%	10.9	19.5%
2003	37.6	19.8%	10.6	17.5%
2004	62.7	29.9%	13.2	14.3%
2005	176.8	26.9%	13.6	12.5%

At this point a distinction should be made between the GCC and Malaysian *takaful operating companies*. Although the volume of equities in GCC showed a strong positive trend during the years of the study with a large increase in 2005 to reach US$176.8 million, the composition for this asset class fluctuated. In contrast, the volume of equities in Malaysia showed slight increase to reach US$13.6 million by the end of 2005. However, the composition of this asset class decreased gradually from 19.5% in 2002 to 12.5% in 2005. It is worth mentioning that the difference between the two groups was noted in the holdings of quoted versus unquoted equities. As shown in Table 12 in Appendix B, in Malaysia the quoted equities

dominated the equities portfolio during the four years of the study and comprised almost 97% of the total while in the GCC the equities portfolio fluctuated between quoted (2004 and 2003) and unquoted (2005 and 2002). The Mann-Whitney U Test results showed statistically significant difference between GCC and Malaysia companies in terms of composition of equities portfolio in the shareholders fund at 90% confidence level in 2005. Also in 2005, at a 90% confidence level, a significant difference between the two groups was confirmed statistically for composition of unquoted equities.

5.3.3 *Sukuk*

This class represented a minor investment in the shareholders fund investment portfolio, as the percentage of total investment held in *sukuk* was very small as shown in Table 5.7. From 3.7% in 2002 it dropped to 2.2% in 2005, after an increase to 4.1% in 2004. Although the composition of *sukuk* decreased, the total *sukuk* investments held showed a positive trend whereby it increased from US$4.7 million at end of 2002 to US$17.0 million at the end of 2005, an increase of 261.7%. As shown in Table 9 in Appendix B, the entire *sukuk* portfolio was invested in the corporate *sukuk* over the four years of the study and concentrated mainly in corporate *sukuks* with long-term maturity. The reason behind the desire not to invest at all in the government *sukuk* will be discussed later in chapter 7. It should be indicated that the *sukuk* was the second variable asset class in the shareholders fund investment portfolio whereby the CV during years of the study exceeded 200%.

Table 5.7: Volume and Composition (%) of *Sukuk* in the Shareholders Fund Investment Portfolio

Year	US$ Million	Composition
2002	4.7	3.7%
2003	4.6	1.9%
2004	12.4	4.1%
2005	17.0	2.2%

A shown in Table 5.8, investments in *sukuk* were mainly made by *takaful operating companies* in Malaysia whereby almost 80% of the total *sukuk* portfolio can be attributed to *takaful operating companies* in Malaysia. The *sukuk* composition was increasing in Malaysia from 8.4% in 2002 to 13.4% in 2005 to become the third largest asset class for Malaysian *takaful operating companies* by the end of 2005. In contrast, in the GCC, *sukuk* comprised negligible composition of the shareholders fund investment portfolio. Although the GCC *takaful operating companies* invested nil in *sukuk* in 2002 and 2003, this asset class comprised 1.2% and 0.4% of the total shareholders fund investment portfolio in 2004 and 2005 respectively. Moreover, as seen in Table 10 in Appendix B, the *takaful operating companies* in both groups invested only in corporate *sukuk*. However, a difference between the two groups was seen in the maturity of their corporate *sukuk* investments. Malaysian *takaful operating companies* invested mainly in long-term maturity corporate *sukuk* while the *takaful operating companies* in the GCC invested on a short-term basis. Statistical results of Mann-Whitney U Test showed significant difference between GCC and Malaysia in terms of composition of *sukuk* at a 90% confidence level and also in terms of composition of corporate *sukuk* at 90% confidence level in 2004 and 2005.

Table 5.8: Volume and Composition (%) of *sukuk* in the Shareholders Fund Investment Portfolio – GCC *versus* Malaysia

Year	GCC		Malaysia	
	US$ Million	Composition	US$ Million	Composition
2002	0.0	0.0%	4.7	8.4%
2003	0.0	0.0%	4.6	7.8%
2004	2.5	1.2%	9.9	10.8%
2005	2.5	0.4%	14.5	13.4%

5.3.4 Mutual funds/unit trusts

Investments in mutual funds/unit trusts comprise the third major asset class which had shown an increasing trend during the years of the study to reach US$64.3 million at end of 2005 compared with US$4.3 million at the end of 2002, an increase of 1,395.3%. Likewise, the composition of this asset class had also increased from 3.4% in 2002 to 19.0% in 2004. However, the composition of this asset class declined in 2005 to 8.4%. On the other hand, a variation between *takaful operating companies* to invest in this asset class was noted in the resulting CVs. Variation among *takaful operating companies* declined during the years of study whereby the CV decreased from 218.5 in 2005 down to 166.7 in 2005.

Table 5.9: Volume and Composition (%) of Mutual Funds/ Unit Trusts in the Shareholders Fund Investment Portfolio

Year	US$ Million	Composition
2002	4.3	3.4%
2003	37.0	14.8%
2004	57.4	19.0%
2005	64.3	8.4%

This overall trend for this asset class was different when a comparison is made between the GCC and Malaysia. As shown in Table 5.10, the investments in mutual funds/unit trusts were shaped by GCC companies. The composition of this asset class increased

dramatically by GCC *takaful operating companies* from 4.,8% in 2002 to 26.9% in 2004 followed by a decrease in 2005 to 9.6%. Unlike in GCC, Malaysian *takaful operating companies* had invested a negligible amount in this asset class and the composition decreased from 1.7% in 2002 to 0.9% in 2005.

Although there was a big difference between the two groups toward investments in this asset class as we explained earlier, this difference was not confirmed statistically by Mann-Whitney U Test at 90% confidence level.

Table 5.10: Volume and Composition (%) of Mutual Funds/ Unit Trusts in the Shareholders Fund Investment Portfolio – GCC *verses* Malaysia

Year	GCC		Malaysia	
	US$ Million	Composition	US$ Million	Composition
2002	3.4	4.8%	0.9	1.7%
2003	36.1	19.0%	0.9	1.5%
2004	56.4	26.9%	0.9	1.0%
2005	63.4	9.6%	0.9	0.9%

5.3.5 Investment in subsidiaries

The investment in subsidiaries had been a negligible asset class except in 2005 when it increased dramatically as the third major asset class in the shareholders fund investment portfolio. The volume increased from US$0.9 million in 2002 to US$165.1 million in 2005. Similarly, the composition increased from 0.7% to 21.6% during the same period. The investment in subsidiaries was the most variable asset class among *takaful operating companies* as the Coefficient of Variation (CV) were always above 235% during all the years of the study.

Table 5.11: Volume and Composition (%) of Investment in Subsidiaries in the Shareholders Fund Investment Portfolio

Year	US$ Million	Composition
2002	0.9	0.7%
2003	0.9	0.4%
2004	7.1	2.4%
2005	165.1	21.6%

Investments in this asset class were made mostly by two *takaful operating companies* - one in the GCC and the other in Malaysia. The remaining *takaful operating companies* in both groups did not invest in this asset class. The sharp increase in 2005 was caused by a *takaful company* in the GCC whereby the existing subsidiaries were consolidated under this company. Also, in Malaysia the increase in this asset class was due to expansion of a *takaful company* which established subsidiaries in other countries.

The statistical results of the Mann-Whitney U Test showed no significant difference between GCC and Malaysia in terms of composition of investment in subsidiaries at 90% confidence level.

Table 5.12: Volume and Composition (%) of Investment in Subsidiaries in the Shareholders Fund Investment Portfolio – GCC *versus* Malaysia

Year	GCC		Malaysia	
	US$ Million	Composition	US$ Million	Composition
2002	0.0	0.0%	0.9	1.6%
2003	0.0	0.0%	0.9	1.5%
2004	1.3	0.6%	5.8	6.3%
2005	158.0	24.1%	7.1	6.6%

5.3.6 Real estate investments

The composition of real estate investments decreased gradually to comprise 4.0% at the end of 2005 compared with 19.7% at the end of 2002. However, the volume of this class grew by 22.7% from US$24.7 million in 2002 to US$30.3 million in 2005. It should be indicated that the variation of investment in this asset class among *takaful operating companies* widen as the CV was gradually increased from 102.3% in 2002 to 206.8% in 2005.

Table 5.13: Volume and Composition (%) of Real Estate Investments in the Shareholders Fund Investment Portfolio – GCC *versus* Malaysia

Year	GCC		Malaysia	
	US$ Million	Composition	US$ Million	Composition
2002	12.8	18.4%	11.8	21.2%
2003	10.4	5.5%	11.8	19.5%
2004	13.6	6.5%	11.7	12.7%
2005	15.2	2.3%	15.1	13.9%

As presented in Table 5.13, although the amount invested in real estate by the GCC *takaful operating companies* increased from US$12.8 million in 2002 to US$15.2 million in 2005, the composition of this asset class decreased from 18.4% to 2.3% during the same period. Similarly, in Malaysia, the composition of this asset class also showed a decreasing trend from 21.2% in 2002 to 13.9% in 2005 compared with the increase in volume from US$11.8 million to US$15.1 million during the same period. Although the composition for this asset class declined in Malaysia, it was still considered as one of the major asset classes that the *takaful operating companies* in Malaysia preferred to invest in. In fact, this asset class was the second major asset class for Malaysian *takaful operating* companies for almost three years of the surveyed period of the study. Unlike Malaysia, in the GCC, the importance of this asset class decreased gradually toward other asset classes - particularly mutual funds investment. Mann-Whitney U Test results showed no significant difference between GCC and Malaysia in terms of composition of real estate investments at 90% confidence level.

5.3.7 Others

The assets classified under 'Other' category decreased from US$6.3 million in 2002 to US$4.9 million in 2005. Similarly, the composition for this category decreased from 5% to 0.6% during the same period. There are two assets classified under this category namely, financing provided for the staff for housing purposes and *murabaha* financing. Almost two thirds of assets under 'Other' category were invested in staff financing while the remaining was invested in *murabaha* financing. It should be point out that the GCC companies had not classified any investment under 'Other' category and the shown investment under this category was carried out only by one *takaful company* in Malaysia.

5.3.8 Return on investment (ROI)

As shown in Table 5.14, the ROI on shareholders fund investment portfolio increased from 4.0% in 2002 to reach 13.3% in 2005 as a result of the increase in the net investment income generated by the portfolio from US$5 million to US$101.7 m`illion during the same period. Notable growths in ROI and in net income were seen in 2004 and 2005. The variation among *takaful operating companies* in the ROI widened during four years of the study whereby the CV increased from 58.3% in 2002 to 122.5% in 2005.

Table 5.14: Return on Investment (ROI) on Shareholders Fund Investment Portfolio

Year	Amount US$	ROI
2002	5.0	4.0%
2003	9.3	3.7%
2004	27.3	9.1%
2005	101.7	13.3%

As shown in Table 5.15, the Malaysian companies showed a declining trend for ROI, while the GCC companies showed an increasing trend to reach 15% by the end of 2005. This difference between the GCC and Malaysia was supported statistically at a 90% level of confidence in 2005 by using Mann-Whiney U Test.

Table 5.15: The Net Income and Return on Investment (ROI) on Shareholders Fund Investment – GCC *versus* Malaysia

Year	GCC		Malaysia	
	US$ Million	ROI	US$ Million	ROI
2002	3.2	4.6%	1.7	3.1%
2003	7.2	3.8%	2.1	3.5%
2004	24.2	11.5%	3.1	3.4%
2005	98.5	15.0%	3.2	2.9%

5.4 General Fund

The general fund investment portfolio registered an average growth of 50% during the years of the study, reaching US$333.0 million at the end of 2005, which is higher than US$124.4 million at the end of 2002. This was mainly due to the increase in investment accounts, investment in equities and investment in *sukuk* and by 96.0%, 357.7% and 219.4%, respectively.

Table 5.16: Composition (%) of General Fund Investment Portfolio

Asset classes	2002	2003	2004	2005
Cash	-0.8	4.3	3.7	1.1
Investment accounts	50.6	42.2	43.5	37.0
Sukuk	19.9	22.0	20.7	23.8
Equities	17.3	20.7	21.9	29.6
Real estate investments	9.6	8.4	7.6	6.7
Investment in subsidiaries	0.4	0.3	0.2	0.1
Mutual funds/Unit trusts	0.8	0.6	1.3	0.9
Others	2.2	1.5	1.1	0.8

Considering the composition of general funds investment portfolio, the investment accounts, equities and *sukuk* were the dominant major asset classes whose total composition represented 90.4% of the total by the end of 2005. As shown in Table 5.16, the investment accounts remained the first major asset class in the portfolio. However, its

composition diminished from 50.6% in 2002 to 37.0% in 2005 towards other asset classes, particularly equities and *sukuk*.

Table 5.17: Composition (%) of General Fund Investment Portfolio – GCC *versus* Malaysia

Asset classes	2002		2003		2004		2005	
	GCC	MY	GCC	MY	GCC	MY	GCC	MY
Cash	4.0	-1.8	6.3	3.3	7.0	2.0	2.6	-0.3
Investment accounts	61.8	48.4	51.6	37.9	44.9	42.7	42.3	32.4
Sukuk	0.0	23.7	0.0	32.1	0.0	31.8	0.0	45.0
Equities	19.9	16.8	30.7	16.1	33.9	15.4	46.8	14.2
Real estate investments	14.3	8.7	11.2	7.2	11.6	5.5	7.0	6.3
Investment in subsidiaries	0.0	0.5	0.0	0.4	0.0	0.3	0.0	0.3
Mutual funds/Unit trusts	0.0	1.0	0.2	0.8	2.6	0.6	1.3	0.5
Others	0.0	2.7	0.0	2.2	0.0	1.7	0.0	1.5

The general fund investment portfolio composition behaviour was to a great extent different when a comparison is made between the GCC and Malaysian *takaful* operating companies. Investment accounts, equities and real estate were the three major asset classes in the GCC which represented an average of 94% of the total portfolio during the years of the study. In contrast, investment accounts, *sukuk,* and equities represented an average of 89% of the total portfolio in Malaysia. It should be indicated that the order of three major asset classes in the GCC and Malaysia had been stable except in 2005 when the order was changed and the composition of equities and *sukuk* superseded investment accounts to become the first major asset classes in the GCC and Malaysia, respectively. Moreover, like the shareholders fund, both the GCC and Malaysia invested in investment accounts and cash on short-term bases. In contrast, a difference was seen between the two groups on the long-term basis. The *takaful operating companies* in GCC invested mainly in equities as the primary major asset class (83.7% of long-term investment by 2005) and in real estate as a secondary asset class (12.6% of long-term investment by 2005). However, the *sukuk* was used as a primary asset class (61.6% of long-term investment by

2005) and equities as a secondary asset class (19.4% of long-term investment by 2005) by Malaysian *takaful operating companies*.

5.4.1 Investment accounts

As shown in Table 5.18, the general fund had U$123.3 million investment accounts with the banks at the end of 2005, compared with US$62.9 million at the end of 2002, an increased of 96.0%.

Table 5.18: Volume and Composition (%) of Investment Accounts in the General Fund Investment Portfolio

Year	US$ Million	Composition
2002	62.9	50.6%
2003	77.0	42.2%
2004	107.5	43.5%
2005	123.3	37.0%

In contrast, the composition of investment accounts registered decrease during the period of the study to reach 37.0% of overall general fund investment portfolio in 2005 compared with 50.6% in 2002. The shift from investment accounts was towards other asset classes namely: equities and *sukuk*. Furthermore, due to the nature of insurance liabilities under general funds, almost 90% of investment accounts were held on short-term basis except in 2002 where the short-term investment accounts represented 88.5% of the total as shown in Table 24 in Appendix B. In terms of the CVs, as shown in Table 32 in Appendix B, the variations in composition of investment accounts among *takaful operating companies* were very low and were increasing during years of the study.

Table 5.19: Volume and Composition (%) of Investment Accounts in the General Fund Investment Portfolio – GCC *versus* Malaysia

Year	GCC		Malaysia	
	US$ Million	Composition	US$ Million	Composition
2002	12.4	61.8%	50.5	48.4%
2003	29.7	51.6%	47.4	37.9%
2004	39.0	44.9%	69.0	42.7%
2005	66.3	42.3%	57.0	32.4%

One of the attributes of the *takaful* operating companies in GCC and in Malaysia is their higher proportion of investments held in the form of investment accounts and particular on a short-term basis. However, the level of investment accounts varied between GCC and Malaysia as can be seen from Table 5.19, above. Although the volume of investment accounts in GCC showed an increasing trend from US$12.4 million in 2002 to US$66.3 million in 2005, the composition for this asset class decreased from 61.8% to 42.3% during the same period. Unlike in the GCC, the volume and composition of investment accounts decreased in Malaysia. Although the composition of investment accounts decreased in both groups, the decline in Malaysia was larger than the GCC. The composition of investment accounts for *takaful operating companies* in Malaysia decreased from 48.4% of total in 2002 to reached 32.4% in 2005. In fact, the Malaysian *takaful operating companies* shifted in 2005 from investment accounts to investments in *sukuk*. Moreover, as shown in Table 25 in Appendix B, in both groups almost all the investment accounts were held on a short-term basis. However, the GCC *takaful* operating companies kept more investment accounts on a short-term basis compared with Malaysian *takaful* operating companies. Finally, the difference between the GCC and Malaysia in terms of investment accounts composition was examined statistically. The result of the test at 90% confidence level showed that there was no significant difference between these groups in terms of investment accounts composition

5.4.2 Equities

As can be seen in Table 5.20, investment in equities increased from US$21.5 million at the end of 2002 to US$98.4 million in 2005 for the entire industry, an increase of 357.7% during the years of the study. The major increase was in 2005 by 81.9% due to the increased in unquoted and quoted equities by 144.1% and 69.0%, respectively.

Table 5.20: Volume and Composition (%) of Equities in the General Fund Investment Portfolio

Year	US$ Million	Composition
2002	21.5	17.3%
2003	37.7	20.7%
2004	54.1	21.9%
2005	98.4	29.6%

Similarly, the composition of equities had increased gradually which accounted for 29.6% in 2005, compared with 17.3% in 2002. As shown in Table 28 in Appendix B, the majority of the equities portfolio was invested in quoted equities listed in stock exchanges. However, the contribution of quoted equities to the total equities portfolio decreased over the period of the study from 92.3% in 2002 to 76.9% in 2005. In contrast, the unquoted equities contribution to total equities portfolio gradually increased from 7.7% in 2002 to 23.1% in 2005. As shown in Table 32 in Appendix B, the CVs of unquoted equities were bigger than those of quoted equities during all the years of the study which indicated that investments in unquoted equities were more variable among *takaful operating companies* compared to quoted equities.

Table 5.21: Volume and Composition (%) of Equities in the General Fund Investment Portfolio – GCC *versus* Malaysia

Year	GCC		Malaysia	
	US$ Million	Composition	US$ Million	Composition
2002	4.0	19.9%	17.5	16.8%
2003	17.6	30.7%	20.1	16.1%
2004	29.4	33.9%	24.7	15.4%
2005	73.4	46.8%	25.0	14.2%

The trend shown in Table 5.21 was different when a comparison was made between the GCC and Malaysia. The composition of investment of equities in Malaysia slightly decreased and represented minor composition of the total portfolio. Unlike in Malaysia, the GCC had heavily invested in equities and the composition gradually increased to be the major asset class in the general fund investment portfolio by end of 2005. As shown in Table 29 in Appendix B, another difference between the two groups was seen in the holdings of quoted *versus* unquoted equities. While the *takaful operating companies* in Malaysia mostly invested their equities portfolio in quoted shares, the GCC *takaful operating companies* gradually increased their unquoted equities that represented 30.7% of total equities portfolio by the end of 2005. Statistically, using Mann-Whitney U Test, there was no significant difference between GCC and Malaysia *takaful operating companies* at 90% confidence level in terms of investment in equities.

5.4.3 *Sukuk*

The total investment held in *sukuk* showed an increasing trend and amounted US$ 79.2 million in 2005 compared with US$ 24.8 million in 2002, an increase of 219.4% (see Table 5.22).

Table 5.22: Volume and Composition (%) of *Sukuk* in the General Fund Investment Portfolio

Year	US$ Million	Composition
2002	24.8	19.9%
2003	40.2	22.0%
2004	51.1	20.7%
2005	79.2	23.8%

Although the volume of *sukuk* increased, the composition of this asset class fluctuated during years of the study. The investment in *sukuk* was the second major asset class in earlier years of the study while it became the third major asset class in later years. As shown in Table 26 in Appendix B, the *takaful operating companies* invested more in government *sukuk* compared to corporate *sukuk*. Gradually, the contribution of investment in government *sukuk* to the overall *sukuk* portfolio was increasing and accounted for 59.0% of total *sukuk* portfolio by the end of 2005. This behaviour is really different compared to the behaviour of investment in *sukuk* in the shareholders fund investment portfolio where investment in *sukuk* was done only in the corporate *sukuk*. The reason for this will be discussed later in Chapter 7. In terms of maturity, almost all the *sukuk* in the portfolio were invested in the *sukuk* with the longer maturity. In terms of the variability, the CVs during all years of the study were above 152% which showed variation among *takaful operating companies* toward their investments in this asset class.

Table 5.23: Volume and Composition (%) of *Sukuk* in the General Fund Investment Portfolio – GCC versus Malaysia

Year	GCC		Malaysia	
	US$ Million	Composition	US$ Million	Composition
2002	0.0	0.0%	24.8	23.7%
2003	0.0	0.0%	40.2	32.1%
2004	0.0	0.0%	51.1	31.8%
2005	0.0	0.0%	79.2	45.0%

As shown in Table 5.23, the overall trend for investment in *sukuk* was completely shaped by investment of *takaful operating companies* in Malaysia and the *takaful operating companies* in the GCC had zero position in the *sukuk* during the entire period of the study. This difference between the GCC and Malaysia was confirmed statistically using Mann-Whitney U Test. At 90% confidence level, there was a significant difference between GCC and Malaysia in terms of composition of *sukuk* and corporate *sukuk* during the entire period of the study. Gradually, the Malaysian *takaful operating companies* were shifting from Investment accounts toward investing in *sukuk*. As a result, the composition of *sukuk* increased from 23.7% in 2002 to 45% in 2005 while the composition of investment accounts decreased from 48.4% to 32.4% during the same period. Similarly, the volume of investment in *sukuk* increased from US$24.8 in 2002 to reach US$79.2 million in 2005.

5.4.4 Real estate investments

The composition of real estate investments decreased gradually to comprise 6.7% at the end of 2005 compared with 9.6% at the end of 2002. However, the volume of this asset class registered an increase by 86.6% during the four years of the study from US$11.9 million in 2002 to US$22.2 million in 2005. This asset class was a secondary asset class for *takaful operating companies* since the majority of portfolio was held in investment accounts, *sukuk* and equities. It is worth mentioning that the investment in real estate was the third most variable asset class in the general fund investment portfolio whereby the CV had increased from 192.9% in 2002 to 233.3% in 2005.

Table 5.24: Volume and Composition (%) of Real Estate Investments in the General Fund Investment Portfolio – GCC versus Malaysia

Year	GCC		Malaysia	
	US$ Million	Composition	US$ Million	Composition
2002	2.9	14.3%	9.1	8.7%
2003	6.4	11.2%	9.0	7.2%
2004	10.1	11.6%	8.8	5.5%
2005	11.0	7.0%	11.2	6.3%

As can be seen from Table 5.24 above, in terms of the difference between the GCC and Malaysia, although real estate investments represented a small composition of general fund investment portfolio in the both groups, it was the third major asset class in the GCC portfolio during the entire period of the study. In the GCC, the volume of this asset class had shown a positive trend from US$2.9 million in 2005 to US$11 million in 2005, while the composition decreased from 14.3% to 7.0% during the same period. However, in Malaysia, both the composition and volume of this asset class had shown a decreasing trend from 2002 until 2004 followed by an increase in 2005.

Using Mann-Whitney U Test, there is no significant difference between GCC and Malaysia in terms of composition of real estate investments at 90% confidence level during all years of the study.

5.4.5 Others

Other asset classes which are mutual funds/unit trusts, investment in subsidiaries, and unclassified assets 'Others' represented a small composition of the total general fund investment portfolio. For the mutual funds/unit trusts, the composition fluctuated in the range of 0.8% and 1.3%. However, for investment in subsidiaries and 'Others' asset classes the composition showed a decreasing trend from 0.4% in 2002 to 0.2% in 2005 for the former and from 2.3% to 0.8% for the latter during the same period. It should be indicated that the investment in subsidiaries and mutual funds/unit trusts were the most variable asset classes in the general fund investment portfolio. The CV for the investment in subsidiaries increased from 264.6% in 2002 to 331.7% in 2005 and for mutual funds/unit trusts from 224.1% to 293.6% during the same period.

There was a difference between GCC and Malaysia in terms of investment in these asset classes. In Malaysia, the investment in mutual funds/unit trusts was negligible and the composition decreased over the period of the study from 1.0% in 2002 to 0.5% in 2005. Unlike Malaysia, the composition of this asset class in the GCC increased from 0.0% in 2002 to 2.6% in 2004 followed by a decrease to 1.3% in 2005. For the investment in

subsidiaries and unclassified assets 'Others', the *takaful operating companies* in the GCC had invested nil and negligible investments were made only by the *takaful operating companies* in Malaysia. It should be indicated that the only instrument classified under 'Others' category was the financing *murabaha*. The investment in this instrument was carried out by only one *takaful company* in Malaysia. Statistically, there was no significant difference between GCC and Malaysia in terms of compositions of the three asset classes mentioned above at 90% confidence level.

5.4.6 Return on investment (ROI)

The ROI on the general fund investment portfolio increased from 4.7% in 2002 to reach 14.6% in 2005 as a result of the increase in the net investment income generated by the portfolio from US$5.9 million to US$48.5 million during the same period. The variation in ROI among *takaful operating companies* widened during the four years of the study whereby the CV increased from 106.3% in 2002 to 134.2% in 2005. The most variation was seen in 2005.

Table 5.25: Return on Investment (ROI) on General Fund Investment Portfolio

Year	Amount US$	ROI
2002	5.9	4.7%
2003	7.1	3.9%
2004	14.6	5.9%
2005	48.5	14.6%

The average return on investment (ROI) on general fund investment portfolio in the GCC was bigger than the average ROI for Malaysian *takaful* operating companies. The GCC *takaful* operating companies over-performed and generated double-digit ROIs particularly in 2005 when the ROI reached 27.5%. On the other hand, the *takaful operating companies* in Malaysia underperformed with an average ROI of 3.0% in 2005. The significant difference in the ROI in 2005 between the two groups was confirmed statistically by Mann-Whitney U Test at 90% confidence level.

Table 5.26: The Net Income and Return on Investment (ROI) on General Fund Investment Portfolio – GCC *versus* Malaysia

Year	GCC		Malaysia	
	US$ Million	ROI	US$ Million	ROI
2002	2.1	10.3%	3.8	3.7%
2003	3.5	6.2%	3.6	2.9%
2004	9.2	10.6%	5.3	3.3%
2005	43.2	27.5%	5.3	3.0%

5.5 Family Funds

The total investment portfolio of the family funds registered an average 17.7% growth in the four years of the study to reach US$1.2 billion at the end of 2005, compared with US$0.7 billion at the end of 2002. Unlike the general fund, the growth was steady in the range of 20%.

Table 5.27: Composition (%) of Family Funds Investment Portfolio for Malaysian *Takaful Operating Companies*

Asset classes	2002	2003	2004	2005
Cash	2.2	1.0	0.2	0.5
Investment accounts	43.5	36.0	34.7	28.5
Sukuk	43.5	50.1	49.2	52.0
Equities	7.3	9.8	12.7	13.3
Real estate investments	2.2	2.0	1.7	4.1
Investment in subsidiaries	0.5	0.5	0.9	0.7
Mutual funds/Unit trusts	0.3	0.2	0.2	0.5
Others	0.5	0.4	0.4	0.4

The top three major asset classes in these funds are *sukuk*, investment accounts and equities which dominated the funds and accounted for more that 93% of the overall family funds portfolio during the years of the study. As we can seen in Table 5.27, the composition of *sukuk* gradually took over the composition of investment accounts during the four years of the study. While the composition of both of them was almost close to each other in 2002, the difference in composition was spread in 2005 whereby the

composition of *sukuk* and investment accounts accounted for 52.0% and 28.5%, respectively. On the other hand, the composition of the third asset class diminished during the years of the study from 13.3% in 2002 to 7.3% in 2005. Moreover, the *takaful operating companies* in Malaysia invested their short-term portfolio in cash and investment accounts. However, on the long term basis, *sukuk* was the primary major asset class (71.1% of long-term investment by 2005) and in equities as a secondary asset class (18.2% of long-term investment by 2005).

5.5.1 *Sukuk*

Sukuk is the top assets class dominating the investment portfolio of family funds. The volume of *sukuk* had registered a double-digit growth during the years of the study to reach US$600.4 million at the end of 2005, compared with US$314.5 million at the end of 2002. Similarly, the composition had increased gradually during the study's four years from 43.5% in 2002 to 52.0% in 2005. Unlike the general fund, the majority of the investment was done in corporate *sukuk* which represented more than 60% of the total *sukuk* portfolio during the entire years of the study. However, the contribution of government *sukuk* to the total *sukuk* portfolio showed a slight positive trend from 34.9% in 2002 to 38.2% in 2005. As shown in Table 40 in Appendix B, all the *sukuk* investments were invested in *sukuks* with longer maturities except in 2003 where a very negligible percentage (0.2% of total *sukuk* portfolio) was invested on a short-term basis. In term of variability, the CV for the investment in *sukuk* was very low during all years of the study.

5.5.2 Investment accounts

The amount invested in investment accounts with banks had fluctuated during the four years of the study. However, during the same period the composition of this asset class gradually declined from 43.5% in 2002 to 28.5% in 2005. In fact, the investment in *sukuk* had mainly taken over the composition of investment accounts. As seen in Table 39 in Appendix B, the majority of investment accounts were held on a short-term basis whereby an average 95.2% of investment accounts were held short-term during the years

of the study. However, the percentage of short-term investment accounts was decreasing from 97.4% in 2002 to 92.5% in 2005. Also, the CV results during all years of the study were very low indicating lower variation among *takaful operating companies* toward investments in this asset class.

5.5.3 Equities

Investment in equities had increased from US$52.5 million at the end of 2002 to US$ 153.4 million in 2005, an increase of 192.2% during the years of the study. Similarly, the composition of equities also increased from 7.3% to 13.2% during the same period. As presented in Table 41 in Appendix B, almost the entire equities portfolio was invested in the quoted equities listed in stock exchanges. In terms of the variation, the CV for quoted equities increased from 54.1% in 2002 to 111.4%. However, for the unquoted equities it showed a higher variation among *takaful operating companies* as the CV was very high during years of the study except in 2005 where it dropped substantially.

5.5.4 Real estate investments

Real estate investments increased from US$16.2 million at the end of 2002 to US$ 47.8 million at the end of 2005, an increase of 195.1% during the years of the study. The major increase was in 2005 by 167% due to the increased in the real estate portfolio by a *takaful company* in Malaysia. The composition of real estate investments decreased from 2.4% in 2002 to 2.0% in 2004 followed by an increase to 4.2% in 2005. In terms of variation, the CV had increased from 141.2% in 2002 to 173.2% in 2005.

5.5.5 Others

Other asset classes (which are mutual funds/unit trusts, investment in subsidiaries, and unclassified 'others') represented a small composition of the total family funds investment portfolio. For investment in subsidiaries, the composition fluctuated in the range of 0.5% to 0.9%. However, for the mutual funds/unit trusts the composition showed a decreasing trend followed by an increase in 2005. The increase in mutual funds/unit trusts volume from US$ 1.8 million in 2004 to US$5.8 million in 2005 was mainly due to the rise in investment in this asset class by a single *takaful company* in Malaysia. With regards to unclassified 'Others' assets, although the volume increased in 2005, the composition had decreased slightly from 0.5% in 2002 to 0.4% in 2005. The instrument categorized under 'Others' was the *murabaha* financing which was invested by one *takaful company* in Malaysia. As shown in Table 45 in Appendix B, for the entire above-mentioned asset classes, the CV results were all very high during the years of the study.

5.5.6 Return on investment (ROI)

The average return on investment (ROI) on family funds investment portfolio remained stable at almost 4.6% during the period of the study.

5.6 Conclusion

The result of the first objective of this study on exploring the composition of investment portfolio for *takaful operating companies* was addressed in this chapter and the analysis will be presented in Chapter Seven. Details about the asset classes composing investment portfolio for each of the three *takaful* funds (shareholders fund, general fund and family funds) were presented. Moreover, both the descriptive and inferential statistical results were presented. The data presented in this chapter reveals that both the GCC and Malaysian *takaful operating companies* had invested on the short-term basis in investment accounts. However, differences were seen in the long-term investment portfolio. The GCC *takaful* operating companies preferred to invest their general fund investment portfolio in equities and real estate while preferring to invest their shareholders fund investment portfolio in equities and mutual funds/unit trusts. Unlike the GCC, Malaysian *takaful operating companies* invested substantially in *sukuk* particularly the general and family funds investment portfolio. For the shareholder fund, Malaysian *takaful operating companies* invested mainly in investment accounts which represented almost 48% of their shareholder fund investment portfolio by end of 2005. The reasons behind these differences between the two groups will be discussed later in Chapter Seven.

CHAPTER SIX

LOCATING THE DIFFERENCES BETWEEN ACTUAL AND DESIRED INVESTMENT PORTFOLIO

6.1 Introduction

After presenting the actual portfolio composition of *takaful operating companies* in both GCC and Malaysia during the periods of 2002 to 2005 in Chapter Five, this chapter aims to address whether the actual portfolio composition is really the targeted portfolio composition that *takaful operating companies* desire to have. As the *takaful* industry is still under the evolving phase, the identification of the desired portfolio composition is very crucial for several factors. The first factor would be to ascertain whether the actual portfolio composition structure is forced by the companies' desires or by market forces. In particular, as some of the required products by the *takaful operating companies'* might not be available in the market and lead the companies to choose the current portfolio composition.

The understanding of the gap between actual and desired compositions will help identify the products required by the *takaful operating companies* and fill that gap and allow this industry to grow normally. Another factor making the study of this gap very important is the integration between the *takaful* industry and the Islamic banking industry. The Islamic banks would realize the opportunity to focus on this industry and particularly the assets management of *takaful operating companies'* investment portfolio. This chapter will address the gaps (if any) that Islamic banks may find as new opportunities to fill, in order to develop these required asset classes.

In order to identify the gap between actual and desired portfolio compositions, the author chose the most recent data for the year 2005 as the actual composition for *takaful operating companies*. A separate 'Question 9' in the questionnaire addressed the desired portfolio composition as of the end of year 2005. Furthermore, a distinction was made

between the three funds in the *takaful operating companies*. In particular, this chapter addresses the gap between actual and desired investment portfolio compositions for shareholders, general and family funds individually according to the following hypothesis:

- **Hypothesis 2.1:**

  There is no significant difference between the actual and desired levels of composition of shareholders fund investment portfolio in GCC and Malaysia.

- **Hypothesis 2.2:**

  There is no significant difference between the actual and desired levels of composition of general fund investment portfolio in GCC and Malaysia.

However, due to the negligible business of family *takaful* in the GCC, the third hypothesis is confined to Malaysian *takaful* undertakings.

- **Hypothesis 2.3:**

  There is no significant difference between the actual and desired levels of composition of family fund investment portfolio in Malaysia.

Several sub-hypotheses were identified for each asset class under investigation for each of the above hypotheses.

For each asset class under each fund, the actual and desired compositions were compared using descriptive and inferential analysis. The author used the mean for actual and desired composition in the descriptive analysis. The actual mean composition values for each asset class were calculated by dividing the sum of actual composition of an asset class by the total investment for the concerned funds. However, mean desired composition percentages for each asset class were calculated by dividing the sum desired composition percentages for each asset class in Question 9 by the number of *takaful operating companies* for the concerned funds. As for the inferential analysis, the author performed the non-parametric Wilcoxon Signed Rank Test which considered both the sign and the magnitude of the statistical difference between actual and desired compositions. As this study is an exploratory study, a 90% confidence level was chosen

as a criterion to identify the significant differences between actual and desired portfolio compositions. It should be indicated that not all the *takaful operating companies* surveyed responded to Question 9 which is the basis of the result for the desired composition in this chapter. A total of eight *takaful operating companies* were included in the data processing and in the results presented in this chapter particularly, five from the GCC and three from Malaysia. Only eight *takaful operating companies* comprised the data presented in this chapter for both actual and desired compositions for the year 2005. The reader should be cautioned that the actual composition for the year 2005 in this chapter and in the Chapter five will not be equal due to the absence of three *takaful operating companies'* actual composition in this chapter, due probably to the lessened motivation that they have to fill this question.

The results are presented firstly for each of the three funds which are shareholders, general and family funds. For each of these funds, the descriptive and inferential results for each of the seven asset classes will be presented separately. However, the analysis and comparison of trends between GCC and Malaysian companies will be discussed later in Chapter Seven.

6.2 Shareholders Fund

In order to investigate the first hypothesis which is related to the level of desired and actual level of investment composition for the shareholders fund, the main hypothesis has been divided into seven sub-hypotheses which will address the seven surveyed asset classes.

H 2.1.1: There is no significant difference between the level of actual and desired composition of long term government sukuk in the shareholders fund between GCC and Malaysia.

Table 6.1: Desired and Actual Compositions (%) of Long-Term Government *Sukuk*s in the Shareholders Fund

	Actual	Desired	Direction	P-Value	Statistical Difference
All Companies	0.0	5.6	Increase	0.1088^{ns}	Not Significant
GCC Companies	0.0	9.0	Increase	0.1088^{ns}	Not Significant
Malaysian Companies	0.0	0.0	No change	1.0000^{ns}	Not Significant

ns = Not Significant at $\alpha \geq 0.10$;

Overall, the *takaful operating companies* desire to increase the composition of long-term government *sukuk* in their shareholders fund investment portfolio from current composition of 0% to 5.6%. However, the *takaful operating companies* in the GCC desired to increase composition of long-term government *sukuk* in their portfolio from 0% to 9%, while the *takaful operating companies* in Malaysia desired to keep the level of this type of *sukuk* at the current level to be null. This is discussed in detail in Chapter 7.

With regards to the inferential result, Table 6.1 shows that the p-value was not significant at α=0.10 for all, GCC and Malaysian companies. Therefore, we failed to reject the null hypothesis and conclude accordingly that there is no significant difference between the level of actual and desired compositions of long-term government *sukuk* in shareholders fund investment portfolio.

H 2.1.2: There is no significant difference between the level of actual and desired composition of long-term corporate sukuk in the shareholders fund between GCC and Malaysia.

Table 6.2: Desired and Actual Compositions (%) of Long-Term Corporate *Sukuks* in the Shareholders Fund

	Actual	Desired	Direction	P-Value	Statistical Difference
All Companies	4.1	18.3	Increase	0.0464*	Significant
GCC Companies	0.4	11.0	Increase	0.1088ns	Not Significant
Malaysian Companies	12.2	30.4	Increase	0.2850ns	Not Significant

ns = Not Significant at $\alpha = 0.10$; *=Significant at $\alpha = 0.05$

Table 6.2 shows all *takaful operating companies'*, whether in GCC or Malaysia. desire to increase the level of long-term corporate *sukuk* in their shareholders fund investment portfolio. While the *takaful operating companies* in GCC desire to increase composition by 10.6% from almost null position, the *takaful operating companies* in Malaysia desire to increase composition further by 18.2% to reach 30.4% of shareholders investment portfolio. The statistical test result supported the descriptive data in which the p-value for all companies was significant at $\alpha<0.10$. Therefore, the null hypothesis is rejected and accordingly implying a significant difference between the level of actual and desired compositions of long-term corporate *sukuk* in shareholders fund investment portfolio on all companies' levels. However, on GCC and Malaysian companies' level, we failed to reject the null hypotheses and conclude there is no significant difference between the level of actual and desired compositions of long-term corporate *sukuk*.

H 2.1.3: There is no significant difference between the level of actual and desired composition of quoted equities in the shareholders fund between GCC and Malaysia.

Table 6.3: Desired and Actual Compositions (%) of Quoted Equities in the Shareholders Fund

	Actual	Desired	Direction	P-Value	Statistical Difference
All Companies	15.5	18.6	Increase	0.7794ns	Not Significant
GCC Companies	17.3	22.0	Increase	0.5002ns	Not Significant
Malaysian Companies	12.1	13.0	Increase	0.5930ns	Not Significant

ns = Not Significant at $\alpha = 0.10$;

Table 6.3 depicts the *takaful operating companies'* desire slightly to increase the quoted equities in their shareholders fund investment portfolio from 15.5% to 18.6%. However, the GCC companies' desire to increase this asset class to represent 22% of the total portfolio, while the *takaful operating companies* in Malaysia desire to maintain almost the same level of quoted equities at 13%. As can be seen from Table 6.3, all the p-values for All, GCC and Malaysia companies were not significant difference at $\alpha<0.10$. Therefore, the null hypothesis failed to be rejected and hence there is no significant difference between the level of actual and desired portfolio compositions for quoted equities.

H 2.1.4: There is no significant difference between the level of actual and desired composition of unquoted equities in the shareholders fund between GCC and Malaysia.

Table 6.4: Desired and Actual Compositions (%) of Unquoted Equities in the Shareholders Fund

	Actual	Desired	Direction	P-Value	Statistical Difference
All Companies	11.8	10.5	Decrease	0.7532^{ns}	Not Significant
GCC Companies	17.7	14.6	Decrease	0.4652^{ns}	Not Significant
Malaysian Companies	0.4	3.70	Increase	0.6547^{ns}	Not Significant

ns = Not Significant at $\alpha = 0.10$;

Unlike the above-mentioned asset classes, the *takaful operating companies* desired to decrease their investment in unquoted equities in the shareholders fund investment portfolio. However, this trend is different in Malaysia where the *takaful operating companies* desired to increase the composition of unquoted equities in their portfolio to reach 3.7% of the total. On the statistical side, the p-values for All, GCC and Malaysian companies were not significant at $\alpha<0.10$. Therefore, the null hypothesis cannot be rejected and it can, therefore, be concluded that there is no significant difference between the level of actual and desired portfolio for compositions unquoted equities.

H 2.1.5: There is no significant difference between the level of actual and desired composition of Mutual funds/Unit trusts in the shareholders fund between GCC and Malaysia.

Table 6.5: Desired and Actual Compositions (%) of Mutual Funds/Unit Trusts in the Shareholders Fund

	Actual	Desired	Direction	P-Value	Statistical Difference
All Companies	19.4	9.0	Decrease	1.0000^{ns}	Not Significant
GCC Companies	28.9	9.0	Decrease	0.2733^{ns}	Not Significant
Malaysian Companies	0.90	9.2	Increase	0.1088^{ns}	Not Significant

ns = Not Significant at $\alpha = 0.10$;

Overall, the *takaful operating companies* desire to reduce the composition of this asset class in their investment portfolio as we can see in Table 6.5. The GCC *takaful operating companies* were the drivers of this decline whereby they desired to decrease the Mutual funds/Unit trusts investments from 28.9% to 9.0%. On the other hand, as this asset class represented negligible amount of total investment portfolio of *takaful operating companies* in Malaysia, there is a desire to increase this asset class to the same desire level of GCC companies which is around 9%.

Statistically, the result of Wilcoxon Signed Rank Test for Mutual funds/Unit trusts for All, GCC and Malaysian companies were not significant at $\alpha<0.01$. Therefore, the null hypothesis cannot be rejected and it should be concluded that there is no significant difference between the level of actual and desired portfolio compositions for this asset class.

H 2.1.6: There is no significant difference between the level of actual and desired composition of real estate investments in the shareholders fund between GCC and Malaysia.

Table 6.6: Desired and Actual Compositions (%) of Real Estate Investments in the Shareholders Fund

	Actual	Desired	Direction	P-Value	Statistical Difference
All Companies	5.0	13.1	Increase	0.0464*	Significant
GCC Companies	0.4	15.2	Increase	0.0796s	Significant
Malaysian Companies	13.9	9.70	Decrease	0.3173ns	Not Significant

ns = Not Significant at α = 0.10; s= Significant at α = 0.10; *=Significant at α = 0.05

Table 6.6 shows that the *takaful operating companies* on the All Companies level desired to increase the real estate investments in their investment portfolio from 5% to 13.1%. However, there are differences on the GCC and Malaysian companies' level. The *takaful operating companies* in the GCC desired to increase this asset class from 0.4% to 15.2%, while the *takaful operating companies* in Malaysia desired to decrease the level from 13.9% to 9.7%. The statistical result supports the descriptive result for the All and GCC companies levels as the p-value was significant at $\alpha<0.10$. Therefore, null hypothesis is rejected for All and GCC levels indicating significant difference between the actual and desired levels of real estate investments toward increase this asset class in the shareholders fund investment portfolio. However, on Malaysian companies level, the null hypothesis cannot be rejected and hence, there is no significant differences between actual and desire compositions for this asset class.

H 2.1.7: There is no significant difference between the level of actual and desired composition of one-year or shorter instruments in the shareholders fund between GCC and Malaysia.

Table 6.7: Desired and Actual Compositions (%) of One-Year or Shorter Instruments in the Shareholders Fund

	Actual	Desired	Direction	P-Value	Statistical Difference
All Companies	38.4	21.2	Decrease	0.0117*	Significant
GCC Companies	32.8	15.0	Decrease	0.0431*	Significant
Malaysian Companies	49.3	31.5	Decrease	0.1088ns	Not Significant

ns = Not Significant at α = 0.10; *=Significant at α = 0.05

Table 6.7 reveals that the *takaful operating companies* on All, GCC and Malaysian companies levels commonly desire to decrease the composition of one-year or shorter instruments in their shareholders investment portfolio. This finding was confirmed by the descriptive and inferential results. From the descriptive prospective, the result shows that the *takaful operating companies* want to reduce the level of one-year or shorter instruments by almost the same percentage which is close to 17.5% to reach the level of 15% and 31.5% for GCC and Malaysia, respectively.

With regards to the inferential result, the p-value were significant at 95% confidence level on the All and GCC levels. Therefore, we reject the null hypothesis on All and GCC levels and concluded that there is a significant difference between the actual and desired levels for one-year or less instruments toward the decrease of the short-term instruments in the shareholders investment portfolio. It is worth mentioning that the p-value of 0.0117 is the highest significant relationship when compared to other examined asset classes. With regards to Malaysian companies, the p-value of 0.1088 was not significant at 90% confidence level. Therefore, we failed to reject the null hypothesis for Malaysian companies.

6.3 General Fund

The second hypothesis divided also into seven sub-hypotheses to investigate the difference between the levels of actual and desired investment portfolio compositions for each of the seven asset classes in the general fund investment portfolio.

H 2.2.1: There is no significant difference between the level of actual and desired composition of long term government sukuk in the general fund between GCC and Malaysia.

Table 6.8: Desired and Actual Compositions (%) of Long-Term Government *Sukuks* in the General Fund

	Actual	Desired	Direction	P-Value	Statistical Difference
All Companies	17.7	15.1	Decrease	0.2489^{ns}	Not Significant
GCC Companies	0	13	Increase	0.1088^{ns}	Not Significant
Malaysian Companies	26.5	18.5	Decrease	0.1088^{ns}	Not Significant

ns = Not Significant at $\alpha = 0.10$;

On the All companies level the *takaful operating companies* desire to decrease slightly the composition of long-term government *sukuk* in their general fund investment portfolio from current composition of 17.5% to 15.1%. However, a difference was noticed on the GCC and Malaysian companies' level. While the companies in the GCC desired to increase composition of long-term government *sukuk* in their portfolio from 0% to 13%, the *takaful operating companies* in Malaysia desire to decrease from 26.5% to 18.5%. With regards to the statistical result, Table 6.8 shows that the p-value was not significant at $\alpha<0.10$ for All, GCC and Malaysian companies. Therefore, we failed to reject the null hypothesis and conclude that there is no significant difference between the level of actual and desired compositions of long-term government *sukuk* in general fund investment portfolio.

H 2.2.2: There is no significant difference between the level of actual and desired composition of long-term corporate sukuk in the general fund between GCC and Malaysia.

Table 6.9: Desired and Actual Compositions (%) of Long-Term Corporate *Sukuks* in the General Fund

	Actual	Desired	Direction	P-Value	Statistical Difference
All Companies	12.3	24.3	Increase	0.0273^{*}	Significant
GCC Companies	0	18.2	Increase	0.1088^{ns}	Not Significant
Malaysian Companies	18.5	34.4	Increase	0.1088^{ns}	Not Significant

ns = Not Significant at $\alpha = 0.10$; *=Significant at $\alpha = 0.05$

Table 6.9 shows that the *takaful operating companies* from the descriptive perspective desire to increase the level of corporate *sukuk* in their general fund investment portfolio. The highest desired composition was in the GCC companies where the *takaful operating companies* want to increase this asset class from 0% to 18.2% compared with Malaysian companies which desired to increase their holding from the current level of 18.5% to 34.4%. It should be indicated that the *takaful operating companies* in the GCC held nil amount of investment in corporate *sukuk* while the Malaysian companies had at least reasonable levels of this asset class in their investment portfolio. Statistically, on All companies level, the p-value was significant at $\alpha<0.05$. Therefore, the null hypothesis is rejected indicating there is a significant difference between the levels of actual and desired compositions of long-term corporate *sukuk* in general fund investment portfolio on all companies. However, on GCC and Malaysian companies' level, we failed to reject the null hypothesis and therefore concluded that there is no significant difference between the level of actual and desired compositions of long-term corporate *sukuk*.

H 2.2.3: There is no significant difference between the level of actual and desired composition of quoted equities in the general fund between GCC and Malaysia.

Table 6.10: Desired and Actual Compositions (%) of Quoted Equities in the General Fund

	Actual	Desired	Direction	P-Value	Statistical Difference
All Companies	16.7	17.8	Increase	0.1755^{ns}	Not Significant
GCC Companies	21.9	19.8	Decrease	0.1441^{ns}	Not Significant
Malaysian Companies	14.1	14.4	Increase	1.0000^{ns}	Not Significant

ns = Not Significant at $\alpha = 0.10$;

As can be seen in Table 6.10, the *takaful operating companies* slightly desire to increase the level of quoted equities in their general fund investment portfolio. However, GCC companies look forward to decrease the level of this asset class in their investment portfolio to reach 19.8% of total general investment portfolio. In contrast, *takaful operating companies* in Malaysia desire almost to maintain the same level at 14%. Statistically, the result of Wilcoxon Signed Rank Test for quoted equities for All, GCC and Malaysian companies were not significant at $\alpha<0.10$. Therefore, we failed to reject

the null hypothesis and hence it is concluded that there is no significant difference between the level of actual and desired compositions of listed equities in general fund investment portfolio.

H 2.2.4: There is no significant difference between the level of actual and desired composition of unquoted equities in the general fund between GCC and Malaysia.

Table 6.11: Desired and Actual Compositions (%) of Unquoted Equities in the General Fund

	Actual	Desired	Direction	P-Value	Statistical Difference
All Companies	7.7	1.0	Decrease	0.2733^{ns}	Not Significant
GCC Companies	23.1	1.4	Decrease	0.1797^{ns}	Not Significant
Malaysian Companies	0.1	0.2	Increase	0.6547^{ns}	Not Significant

ns = Not Significant at $\alpha = 0.10$;

Table 6.11 reveals that the *takaful operating companies* desire to decrease the level of unquoted equities in their investment portfolio to a very small level at 1% of total general investment portfolio. The most desired trend to reduce was found in GCC whereby the *takaful operating companies* want to decrease the level from 23.1% to 1.4%. The Malaysian companies' desire to maintain this asset class at the negligible level and increased slightly from 0.1% to 0.2%.

On the statistical side, the result of Wilcoxon Signed Rank Test for unquoted equities which as shown in Table 6.11 for All, GCC and Malaysian companies were not significant at $\alpha<0.10$. Therefore, the null hypothesis failed to be rejected and conclude that there is no significant difference between the level of actual and desired compositions of unquoted equities in general fund investment portfolio.

H 2.2.5: There is no significant difference between the level of actual and desired composition of Mutual funds/Unit trusts in the general fund between GCC and Malaysia.

Table 6.12: Desired and Actual Compositions (%) of Mutual Funds/Unit Trusts in the General Fund

	Actual	Desired	Direction	P-Value	Statistical Difference
All Companies	0.4	8.2	Increase	0.0796^{s}	Not Significant
GCC Companies	0.0	10.0	Increase	0.1797^{ns}	Not Significant
Malaysian Companies	0.5	5.3	Increase	0.2850^{ns}	Not Significant

ns = Not Significant at $\alpha = 0.10$; s =Significant at $\alpha = 0.10$

Table 6.12 shows that the *takaful operating companies* both in GCC and Malaysia desired to increase the level of mutual fund in their general fund investment portfolio to a higher level compared with the current level. The most desired trend to increase was found in the GCC where *takaful operating companies* want to raise the level from 0% to 10%. Also, the *takaful operating companies* in Malaysia desire to increase the level of this asset class from 0.5% to 5.3%. Statistically, on All companies level the p-value was significant at $\alpha<0.10$. Therefore, the null hypothesis is rejected and it should, therefore, be concluded that there is a significant difference between the level of actual and desired composition of Mutual funds/Unit trusts in general fund investment portfolio on all companies' level. However, on GCC and Malaysian companies' level, we failed to reject the null hypothesis as the p-values were not significant at $\alpha<0.10$. Therefore, there is no significant difference between the level of actual and desired compositions of Mutual funds/Unit trusts.

H 2.2.6: There is no significant difference between the level of actual and desired composition of Real estate investments in the general fund between GCC and Malaysia.

Table 6.13: Desired and Actual Compositions (%) of Real Estate Investments in the General Fund

	Actual	Desired	Direction	P-Value	Statistical Difference
All Companies	4.8	10.3	Increase	0.1362^{ns}	Not Significant
GCC Companies	1.6	14.0	Increase	0.1408^{ns}	Not Significant
Malaysian Companies	6.3	4.0	Decrease	0.3173^{ns}	Not Significant

ns = Not Significant at $\alpha = 0.10$;

Table 6.13 shows that on the overall level, *takaful operating companies* desire to increase the level of Real estate investments in their general fund investment portfolio from 4.8% to 10.3%. However, there is a difference between the GCC and Malaysian companies toward the level of this asset class in their general fund investment portfolio. The *takaful operating companies* in the GCC desired to increase the current level from 1.6% to 14%, while *takaful operating companies* in Malaysia look forward to decrease from 6.3% to 4%. On the statistical side, the result of Wilcoxon Signed Rank Test on All, GCC and Malaysian companies level for Real estate investments were not significant at $\alpha<0.10$. Therefore, we failed to reject the null hypothesis and conclude that there is no significant difference between the level of actual and desired compositions of Real estate investments in general fund investment portfolio.

H 2.2.7: There is no significant difference between the level of actual and desired composition of one-year or shorter instruments in the general fund between GCC and Malaysia.

Table 6.14: Desired and Actual Compositions (%) of One-Year or Shorter Instruments in the General Fund

	Actual	Desired	Direction	P-Value	Statistical Difference
All Companies	35.4	21.5	Decrease	0.0117*	Significant
GCC Companies	52.4	21.0	Decrease	0.0431*	Significant
Malaysian Companies	26.9	22.5	Decrease	0.1088ns	Not Significant

ns = Not Significant at $\alpha = 0.10$; *=Significant at $\alpha = 0.05$

Table 6.14 reveals that the *takaful operating companies* being in GCC or Malaysia desire to decrease the level of one-year or shorter instruments in their general fund investment portfolio to from 35.4% to 21.5%. However, the *takaful operating companies* in the GCC desire to decrease the level of short-term instruments from 52.4% to 21% compared with Malaysian companies which desired to decrease from 26.9% to 22.5%. Nevertheless, the *takaful operating companies* in GCC and Malaysia desired to decrease almost to the same level of general fund investment portfolio which is 21% and 22.5%, respectively.

The descriptive results reinforced by the statistically significant of Wilcoxon Sign Test result on all and GCC companies at $\alpha<0.10$. Therefore, the null hypothesis is rejected which indicates that there is difference between level of actual and desire of one-year or less instruments in general fund investment portfolio. However, the p-value for Malaysian companies was not significant at $\alpha<0.10$. Therefore, the null hypothesis is failed to be rejected and accordingly there is no significant difference between actual and desired compositions of one-year or shorter instruments for Malaysian companies.

6.4 Family Funds

H 2.3.1: There is no significant difference between the level of actual and desired composition of long-term government sukuk in the family for Malaysian Companies.

Table 6.15: Desired and Actual Compositions (%) of Long-Term Government *Sukuk*s in the Family Funds

	Actual	Desired	Direction	P-Value	Statistical Difference
Malaysian Companies	19.9	18.1	Decrease	0.2850^{ns}	Not Significant

ns = Not Significant at $\alpha = 0.10$;

The *takaful operating companies* in Malaysia desire slightly to decrease the composition of long-term *sukuk* in their family fund investment portfolio from the current composition of 19.9% to 18.1%. With regards to the statistical result, Table 6.15 shows that the p-value was not significant at $\alpha<0.10$. Therefore, we cannot reject the null hypothesis and conclude that there is no significant difference between the level of actual and desired compositions of long-term government *sukuk* in family fund investment portfolio.

H 2.3.2: There is no significant difference between the level of actual and desired composition of corporate term government sukuk in the family for Malaysian Companies.

Table 6.16: Desired and Actual compositions (%) of Long-Term Corporate *Sukuks* in the Family Funds

	Actual	Desired	Direction	P-Value	Statistical Difference
Malaysian Companies	32.1	40.3	Increase	0.1088^{ns}	Not Significant

ns = Not Significant at $\alpha = 0.10$;

Table 6.16 shows that the *takaful operating companies* in Malaysia desire to increase the level of long-term corporate *sukuk* in their family fund investment portfolio from the current level of 32.1% to 40.3%. Statistically, the p-value was significant at $\alpha<0.10$. Therefore, the null hypothesis is accepted indicating that there is no significant difference between the level of actual and desired compositions of long-term corporate *sukuk* in family fund investment portfolio.

H 2.3.3: There is no significant difference between the level of actual and desired composition of quoted equities in the family for Malaysian Companies.

Table 6.17: Desired and Actual Compositions (%) of Quoted Equities in the Family Funds

	Actual	Desired	Direction	P-Value	Statistical Difference
Malaysian Companies	13.2	11.1	Decrease	1.0000^{ns}	Not Significant

ns = Not Significant at $\alpha = 0.10$;

Table 6.17 shows that the *takaful operating companies* in Malaysia desire to decrease the level of quoted equities in their family *takaful* investment portfolio from 13.2% to 11.1%. Statistically, the result of Wilcoxon Signed Rank Test was not significant at $\alpha<0.10$. Consequently, null hypothesis is failed to be rejected and conclude that there is no difference between the level of actual and desired compositions of this asset class in family fund investment portfolio.

H 2.3.4: There is no significant difference between the level of actual and desired composition of unquoted equities in the family for Malaysian Companies.

Table 6.18: Desired and Actual Compositions (%) of Unquoted Equities in the Family Funds

	Actual	Desired	Direction	P-Value	Statistical Difference
Malaysian Companies	0.1	0.2	Increase	0.6547^{ns}	Not Significant

ns = Not Significant at $\alpha = 0.10$;

As can be seen in Table 6.18, the unquoted equities are a negligible asset class in the family fund investment portfolio. Nevertheless, the *takaful operating companies* in Malaysia desired to increase this asset class from 0.1% to 0.2%. Statistically, the result of Wilcoxon Signed Rank Test result was not significant at $\alpha<0.10$. Therefore, the null hypothesis cannot be rejected indicating that there is no significant difference between the level of actual and desired portfolio compositions for unquoted equities in family *takaful* investment portfolio.

H 2.3.5: There is no significant difference between the level of actual and desired composition of Mutual funds/Unit trusts in the family for Malaysian companies.

Table 6.19: Desired and Actual Compositions (%) of Mutual Funds/Unit Trusts in the Family Funds

	Actual	Desired	Direction	P-Value	Statistical Difference
Malaysian Companies	0.5	5.2	Increase	0.2850^{ns}	Not Significant

ns = Not Significant at $\alpha = 0.10$;

Table 6.19 depicts that the *takaful operating companies* desired to increase the level of Mutual funds/Unit trusts investment in their family fund investment portfolio from 0.5% to 5.2%. Regarding the statistical result, the p-value for this asset class was not significant at $\alpha<0.10$. Therefore, null hypothesis is failed to be rejected and conclude that there is no significant difference between the level of actual and desired portfolio compositions for Mutual funds/Unit trusts in family *takaful* investment portfolio.

H 2.3.6: There is no significant difference between the level of actual and desired composition of real estate investments in the family for Malaysia companies.

Table 6.20: Desired and Actual Compositions (%) of Real Estate Investments in the Family Funds

	Actual	Desired	Direction	P-Value	Statistical Difference
Malaysian Companies	4.1	5.0	Decrease	0.3173^{ns}	Not Significant

ns = Not Significant at $\alpha = 0.10$;

The *takaful operating companies* in Malaysia slightly desire to increase the level of real estate investments in their family fund investment portfolio from 4.1% to 5%. Statistically, the p-value for this asset class was not significant at $\alpha<0.10$. Therefore, null hypothesis cannot be rejected indicating that there is no significant difference between the level of actual and desired portfolio compositions for real estate investments in family *takaful* investment portfolio.

H 2.3.7: There is no significant difference between the level of actual and desired composition of one-year or shorter instruments in the family for Malaysian companies.

Table 6.21: Desired and Actual Compositions (%) of One-Year or Shorter Instruments in the Family Funds

	Actual	Desired	Direction	P-Value	Statistical Difference
Malaysian Companies	26.9	19.4	Decrease	0.1088^{ns}	Not Significant

ns = Not Significant at $\alpha = 0.10$;

As shown in Table 6.21, the *takaful operating companies* in Malaysia desire to decrease the level of one-year or shorter instruments in their family fund investment portfolio from 26.9% to 19.4%. Statistically, the p-value for this asset class was not significant at $\alpha<0.10$. As a result, we failed to reject the null hypothesis and conclude that there is no significant difference between the level of actual and desired portfolio compositions for one-year or shorter instruments in family *takaful* investment portfolio.

6.5 Conclusion

This chapter outlines the gaps in asset classes for the *takaful operating companies* in both GCC and Malaysia. Table 6.22 summarizes the asset classes demanded by the *takaful operating companies* that only confirmed inferentially by the Wilcoxon Signed Rank Test. Regarding the shareholders fund, the *takaful operating companies* demanded to increase the level of long-term corporate *sukuk* and real estate investments. However, a desire was observed towards decreasing one-year or shorter instruments. Both these desires were confirmed inferentially using the Wilcoxon Signed Rank Test. The same desire was noted in the general fund with difference in real estate investments. Instead of real estate investments, the *takaful operating companies* desire to increase the level of Mutual funds/Unit trusts in their general fund investment portfolio. Finally, the desire portfolio for the family fund was not able to be confirmed inferentially due to the small sample size in Malaysia.

Table 6.22: Summary of the Desired Asset Classes by the *Takaful Operating Companies* in the GCC and Malaysia for Shareholder, General and Family Funds

Type of Fund \ Group	All	GCC	Malaysia
Shareholders Fund			
Desired +	Corporate *sukuk*	Real estate investments	None
	Real estate investments	None	None
Desired -	One-year or less instruments	One-year or less instruments	None
General Fund			
Desired +	Corporate *sukuk*	None	None
	Mutual Fund/Unit trust	None	None
Desired -	One-year or less instruments	One-year or less instruments	None
Family Fund			
Desired +	None	None	None
Desired -	None	None	None

CHAPTER SEVEN

DISCUSSION ON EMPIRICAL FINDINGS

7.1 Introduction

After presenting the results of this research in the previous two chapters, this chapter will concentrate on discussing the analysis of the empirical results. The findings of the two study objectives were analyzed together by linking the empirical findings from the previous two chapters. However, in the interpretation of the empirical findings, the analysis of the interviews conducted for this study was also consulted. It may be worth reminding the reader again that the actual composition for the year 2005 in this chapter and in Chapter Five will not be equal due to the absence of three *takaful operating companies'* in the actual composition data.

7.2 Portfolio Composition

7.2.1 Shareholders fund

Over the entire period of the study, the takaful operating companies in the GCC dominated the contribution to the total shareholders fund investment portfolio compared to those companies in Malaysia whereby the shareholders investment portfolio of the GCC exceeded Malaysia by an average of 3.17 times. A dramatic dominance happened in 2005 in which the investment of GCC companies accounted for almost 85.8% of the total shareholders investment portfolio or exceeded six times Malaysian companies' shareholders fund investment. The reason behind the GCC companies' dominance would be attributed to two factors. The first factor is the size of capital of *takaful operating companies* in the GCC. The mean size of GCC *takaful operating companies'* capital is twice than Malaysian *takaful operating companies'* capital. Although the size of capital is

CHAPTER SEVEN

DISCUSSION ON EMPIRICAL FINDINGS

7.1 Introduction

After presenting the results of this research in the previous two chapters, this chapter will concentrate on discussing the analysis of the empirical results. The findings of the two study objectives were analyzed together by linking the empirical findings from the previous two chapters. However, in the interpretation of the empirical findings, the analysis of the interviews conducted for this study was also consulted. It may be worth reminding the reader again that the actual composition for the year 2005 in this chapter and in Chapter Five will not be equal due to the absence of three *takaful operating companies'* in the actual composition data.

7.2 Portfolio Composition

7.2.1 Shareholders fund

Over the entire period of the study, the takaful operating companies in the GCC dominated the contribution to the total shareholders fund investment portfolio compared to those companies in Malaysia whereby the shareholders investment portfolio of the GCC exceeded Malaysia by an average of 3.17 times. A dramatic dominance happened in 2005 in which the investment of GCC companies accounted for almost 85.8% of the total shareholders investment portfolio or exceeded six times Malaysian companies' shareholders fund investment. The reason behind the GCC companies' dominance would be attributed to two factors. The first factor is the size of capital of *takaful operating companies* in the GCC. The mean size of GCC *takaful operating companies'* capital is twice than Malaysian *takaful operating companies'* capital. Although the size of capital is

greater in the GCC, its standard deviation was very large[40] which indicated differences among GCC companies in terms of size of capital. In fact, there were two *takaful operating companies* with large capital in the GCC which contributed to the observed large standard deviation. Other than these two large companies in terms of size of capital, remaining surveyed *takaful operating companies* in the GCC were roughly close to those in Malaysia It should be indicated that due to the large capital of these two companies, overall shareholders investment portfolio patterns for GCC companies were shaped by these two companies. The second factor for GCC companies dominating shareholders fund portfolio is the nature of asset classes comprising shareholders fund investment portfolio. GCC *takaful operating companies* had larger compositions in the asset classes which generated higher returns and exposed to capital gains such as equities and real estate compared to those in Malaysia which had investment accounts comprising almost 48%. The growth in the size of investment portfolio in the GCC was expected to be more than Malaysian companies.

Moreover, differences were noticed between the GCC and Malaysian *takaful* operating companies in managing the shareholders fund investment portfolio. Although the first major asset class for *takaful operating companies* in both GCC and Malaysia was investment accounts, its composition from total shareholders fund investment varied. The Malaysian *takaful operating companies* held almost half of their shareholders fund investment portfolio in the investment accounts by the end of 2005 compared with 35.7% in the GCC. The reason why Malaysian *takaful* operating companies held higher composition in investment accounts was due to the small size of shareholders fund relative to the amount of business managed by them. In contrast to Malaysian companies, GCC *takaful* operating companies are overcapitalized in terms of their level of gross contributions underwritten and investments they handled. Therefore, there was no incentive in GCC to keep the shareholders fund more liquid by investing more in investment accounts especially in companies with large capital.

While the first major asset class was the same for *takaful operating companies* in the GCC and Malaysia, the second major asset class was different in these groups.

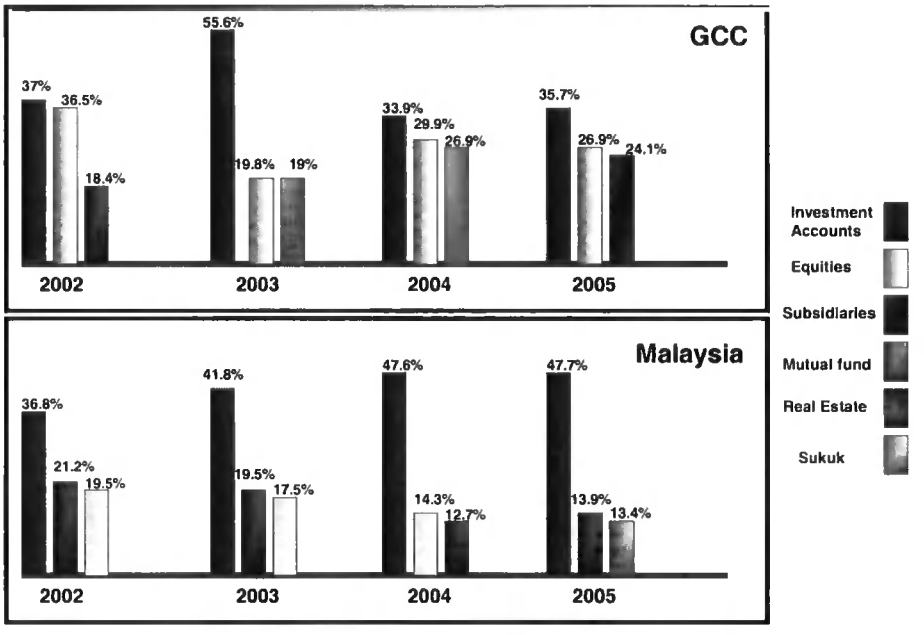
[40] See Table 44 in Appendix B

Investments in equities represented the second component of invested portfolio of shareholders fund in the GCC companies over the entire period of the study. The preference of *takaful operating companies* to invest in equities was due to the existence of enough Shari'ah-compliant shares in the GCC market and the booming stock exchanges during years of the study. Also, as the GCC market continued to grow supported by the increase in oil prices, many *takaful operating companies* in the GCC invested in unquoted equities by participating in newly established ventures to gain profit once these companies go to initial public offering. In contrast, for Malaysian companies, the real estate investments were the second major asset class, except in 2004 in which equities was the second. In fact, the desired preference in Malaysia to invest in real estate was shaped by one company while the other companies were utilizing the equities as a second major asset class.

The third asset class fluctuated in both GCC and Malaysia. In the former group, the larger *takaful operating companies* shaped the major third asset class. The investment in subsidiaries in 2005 was the third major asset class due to expansion and consolidation caused by one large *takaful company* which was confirmed by its CV in which this asset class was the most variable asset class during that year[41]. Also, the investment in mutual funds/unit trusts which was the third asset class in 2003 and 2004 were influenced by two major *takaful operating companies* which invested 51.6% and 46.7% of their shareholders fund investment portfolio in this asset class, respectively. However, in the latter group the fluctuation was between investment in equities and *sukuk*. Malaysian *takaful operating companies* mostly tried to invest during the study years very close composition in equities and *sukuk* to enhance their returns on investment on shareholders fund investment portfolio.

[41] See Table 15 in Appendix B

Figure 7.1
Comparison between the Compositions (%) of the Three Major Asset Classes for Shareholders Fund – GCC *versus* Malaysia



As shown in Figure 7.1, generally the gap in composition of the first major asset class (investment accounts) with the second and third major asset classes in Malaysia was larger compared with the gap in the GCC *takaful operating companies* where the composition of the three major asset classes in composition were close to each other. The reason behind this difference was due to the size of business underwritten and investment handled by *takaful operating companies* which led to this difference in the gap between the three major asset classes. In the GCC where the amount of gross contributions was smaller compared to their capital, the *takaful operating companies* gave priority to maximize their returns on the portfolio while they kept relatively reasonable investment in investment accounts to maintain the liquidity of shareholder funds. This priority was implemented to maximize their profit by investing almost very close composition in investment accounts, equities and other asset classes which generated higher income. Unlike GCC, Malaysian *takaful operating companies* prioritized the liquidity of the fund as their main objective by maintaining almost half of their composition in investment accounts. However, they tried to enhance their returns by investing mostly smaller equal

compositions in equities, *sukuk* and real estate as they gave lower priority to maximize the profit of the fund.

Furthermore, in both groups the understanding of the role of the capital under the *takaful* structure was observed to influence the shareholders fund investment portfolio composition. In fact, the role of capital under the *takaful structure* is debatable among scholars and market players, including regulators.[42] and *takaful operating companies.* While the personal observation from the market shows that some in the market believe that the role of capital is just to satisfy the regulatory requirements, others insist on the importance of capital to support the *takaful* funds especially in case of deficits arising from *takaful* operations.

The difference in the views on the role of capital under the *takaful* structure was clearly seen in the interview survey results when *takaful operating companies* were asked whether they believed that the shareholders fund under the *takaful* structure should be regulated by the regulators and should be subjected to the solvency margin requirements.[43] The Majority of the *takaful operating companies* surveyed, which represented 72.6% of the total sample, believed that the shareholders fund should be regulated. However, they added that the regulatory requirement for shareholders fund must be lighter than participants' funds. They reasoned that while the shareholders fund theoretically does not bear any risk, in practice it should be a safeguard for the *takaful funds*, by providing *qard hassan* to cover any deficit. Therefore, all the *takaful operating companies* in this category were maintaining reasonable amounts in investment accounts to keep their shareholders fund liquid to cover any deficit that might be incurred by participant's funds. 18.2% of the total respondents held the position that shareholders fund should not be regulated at all as their position does not carry any risk, according to *shari'ah* rules. They stated that the *takaful company* acts as intermediary in collecting the funds and distributing the balance without any risk borne by them. Although the

[42] Bank Negara Malaysia does not impose in its regulations a mandatory requirement for the *takaful operating companies* to provide *qard hassan* to cover deficit in *takaful* funds. However, the Central Bank of Bahrain (CBB) requires *takaful operating companies* to cover deficits in *takaful* funds which are enforced in the CBB's rulebook.

[43] The survey was conducted by the author as part of qualitative data collected from the surveyed *takaful operating companies* in both GCC and Malaysia.

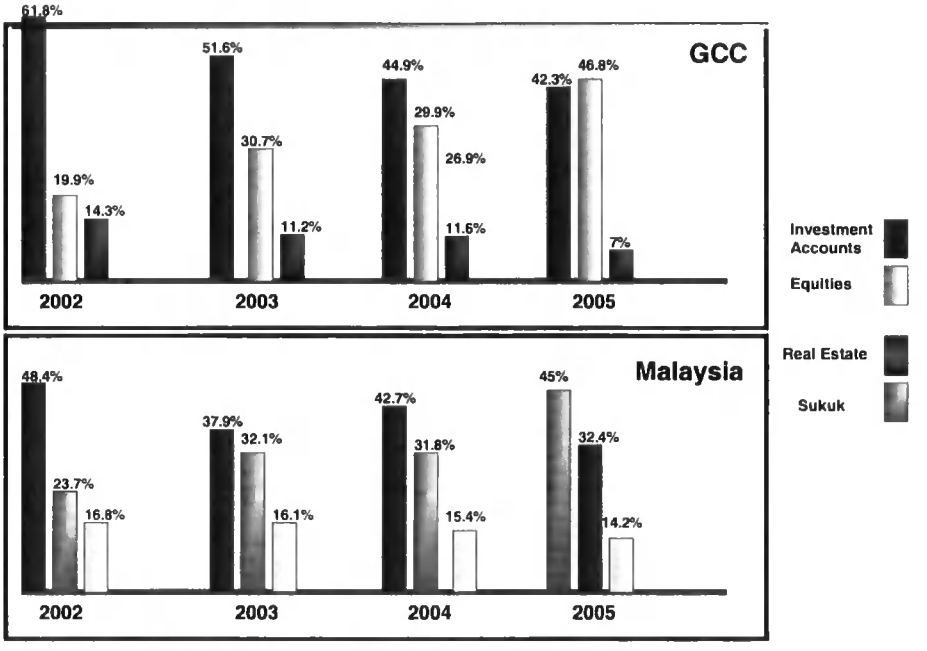
companies held this position, they also maintained investment accounts to keep the shareholders fund liquid.[44] The remaining 9.2% of the total respondents held a very strict position that the regulation must be the same for the shareholders fund and participants' funds. However, the companies in this group maintained very close composition in investment accounts that the previous two groups of respondents maintained. It could be concluded that although the *takaful operating companies* theoretically held different positions regarding the role of the capital under the *takaful* structure, all of them practically maintained very close compositions in investment accounts to keep the shareholders fund in liquid position for any future deficit in the participants' funds.

7.2.2 General fund

The gap in the size of the general fund investment portfolio between the GCC and Malaysia gradually shrunk. The size of the general fund investment portfolio at the end of 2002 in Malaysia was US$104.3 million while that of GCC companies amounted to US$20.1 million, indicating that the size of the general fund investment portfolio in Malaysia was 5.2 times bigger than that in the GCC. However, the gap gradually diminished during the four years of the study, to almost nil by the end of 2005. The reason behind this is twofold. Firstly, more *takaful operating companies* emerged in the GCC during years of the study. Secondly, the general contributions underwritten by the *takaful operating companies* in GCC had grown. In fact, the effect of this change was observed to affect the major asset classes in the general fund investment portfolio. In particular, the investments in *sukuk* were the second major asset class during the earlier years of the study, while investments in equities became the second major asset class in the later years. This was due to the dominance of Malaysian companies in the earlier years of the study which preferred investments in *sukuk*, compared with the rise of the GCC shares in the general fund in the later years which their preference to invest in equities.

[44] Except one company in the GCC which invested its entire shareholders fund in equities and real estate.

Figure 7.2
Comparison between the Compositions (%) of the Three Major Asset Classes for General Fund – GCC *versus* Malaysia



With regards to composition, a difference was seen in the three major asset classes in the GCC and Malaysia. The investment accounts, equities and real estate were the major three asset classes in GCC, compared with investment accounts, *sukuk* and equities in Malaysia. However, as shown in Figure 7.2., a major change in the first major asset class between the two groups was observed in 2005. The first two major asset classes in Malaysia, namely investment accounts and *sukuk,* interchanged from 2004 to 2005. Investments in *sukuk* represented 45.0% in 2005 which is higher than the 31.8% in 2004, while investment accounts comprised 32.4% which is lower than the 42.7% in 2004. The reason behind these would be attributed to the decline of the profit rate on investment accounts for Malaysian ringgit which was pegged to the US dollar. In particular, the *takaful operating companies* in Malaysia were trying to enhance their return on general fund investment portfolio by investing in *sukuk.*

Unlike Malaysian *takaful operating companies*, investment in equities by the GCC *takaful* operating companies (46.8%) superseded investment accounts (42.3%) and

became the first asset class in the general fund by the end of 2005. The GCC *takaful operating companies* would try to offset the lower returns generated from investment accounts by investing aggressively in equities. While the investment in equities might not be a serious issue under the shareholders fund, the existence of aggressive positions of this asset class under the general fund would be perceived as a matter of high concern. This is due to nature of liabilities under the general fund which are on the short-term basis. With the short-term liabilities that might arise under the general fund, aggressive investments in equities would expose the *takaful operating companies* to fluctuation of equity price in the stock market. However, it would be argued that in the GCC, the increase in the companies' investments in equities might not imply a rise in acquisition of new shares in equities portfolio; but rather this could be attributed to the increases in the prices of the shares held by the *takaful operating companies* as stock exchanges in the GCC registered substantial growth during 2005. This argument would justify the increase in quoted equities but in reality even the unquoted equities investment had also increased substantiality in 2005. The increase in unquoted equities proves that the *takaful operating companies* in the GCC had an aggressive investment mentality towards investment of general fund investment portfolio. Another reason for this aggressive GCC behaviour would be attributed to the absence of active primary and secondary markets for *sukuk* in the GCC. The absence of a *sukuk* market in the GCC had left the *takaful operating companies* with no option but to invest in fluctuating and illiquid asset classes such as equities and real estate to enhance their returns on the portfolio. However, based on the interviews conducted with top leaders in the GCC *takaful operating companies*, a general aggressive investment mentality was observed in some companies towards investing in equities and real estate which had been experiencing substantial growths in the GCC region. In particular, some of the leaders of the *takaful operating companies* favoured following the above-mentioned investment strategy even if *sukuk* markets become available. Also, the demand from the shareholders of the *takaful operating companies* for higher Returns on Equity (ROE) would lead some *takaful operating companies* for this aggressive behaviour to meet their shareholders' expectations.

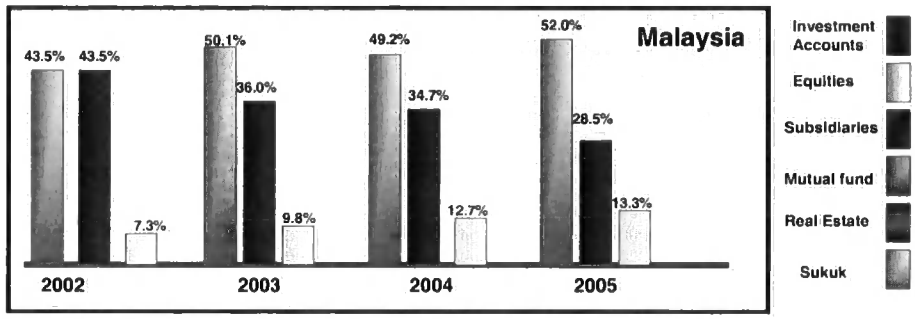
Moreover, the short-term investment portfolio for the general fund in both groups gradually decreased from 65.8% in 2002 to 44.1% in 2005 in GCC and from 39.7% to

26.9% in Malaysia during the same period. The reason for the difference between the two groups in the level of short term invested assets could be attributed to the nature of the long-term investment portfolio. In the GCC where the equities dominated the long-term investment portfolio, the companies recognized the market risk of liquidating equities by utilizing higher investment accounts position on a short-term basis in order to keep the general fund liquid for any future need to support *takaful* funds. In contrast, in Malaysia where the *sukuk* market relatively exist, Malaysian *takaful operating companies* were trying to keep less short-term investments and invested mostly on a long-term basis in *sukuk* to generate more profits compared to investment accounts.

7.2.3 Family funds

The Malaysian *takaful operating companies* dominated this fund and their investment portfolio represents almost 97% of the family fund investment portfolio. This was due to the fact that the family *takaful* business in the GCC is still undeveloped and the penetration rate for this business is very low. However, in Malaysia the penetration rate is high compared to the GCC and the level of the awareness of insurance and particularly the family *takaful* is very high. Therefore, the analysis of the data in this section is confined only to those *takaful operating companies* in Malaysia.

Figure 7.3
The Compositions (%) of the Three Major Asset Classes for Family Funds in Malaysia



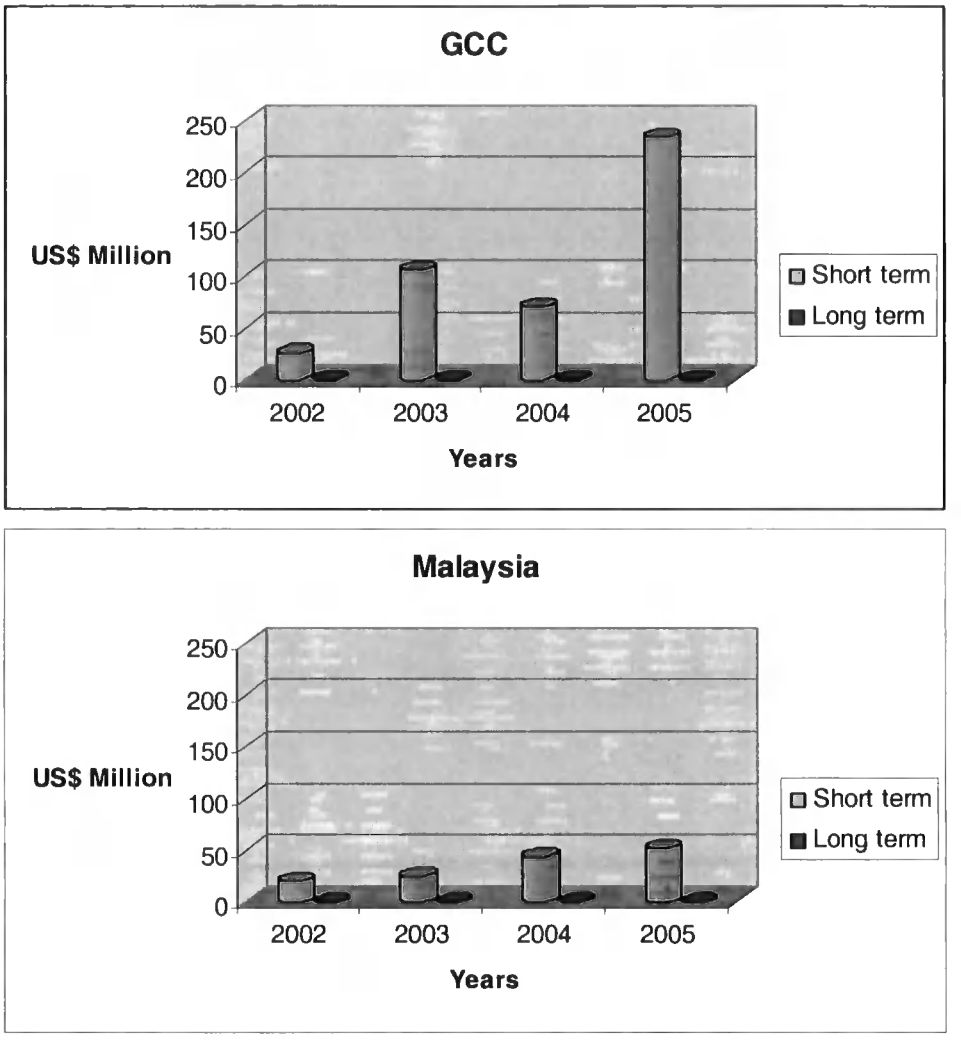
As shown in Figure 7.3, the *takaful operating companies* in Malaysia had gradually shifted from investment accounts to *sukuk* as the first major asset class in their family fund investment portfolio. Both the *sukuk* and investment accounts had almost dominated 80% of the family fund portfolio composition. The *takaful operating companies* maintained investment accounts to manage liquidity for family *takaful* particularly to cover mortality risk under the risk protection fund which called earlier PRF. However, the *sukuk* was used to provide the fixed stream income for savings of participants. As the savings policies grew more than protection policies and dominated the policies sold by *takaful operating companies*, the *sukuk* superseded the investment accounts during the years of the study (BNM, 2005). The investment in equities was the third major asset class in the family fund portfolio and the *takaful operating companies* used this asset class to enhance return on the savings parts for participants.

7.3 Investment Accounts

7.3.1 Shareholders fund

One of the features of the companies in GCC and Malaysia was the higher composition of their investment portfolios held in the form of investment accounts. In fact, as shown in Figure 7.4, in both groups the majority of investment accounts were invested on short-term bases. Also, the investment accounts had dominated the short-term investment portfolio. This indicates that *takaful operating companies* in both groups had utilized investment accounts as the only tool to manage liquidity for the fund. This is confirmed by the low variation among the *takaful operating companies* in investment accounts during the years of the study as shown by their CVs. This means that the *takaful operating companies* had almost the same strategy toward investments in investment accounts to manage their liquidity. Although the *takaful operating companies* do not bear the risk that conventional insurance companies are subject to, and are not liable to cover deficit in *takaful* funds from the theoretical perspective, practically all *takaful operating companies* still want to be liquid in order to provide the necessary *qard hassan* whenever *takaful* funds are needed.

Figure 7.4
Comparison between Volumes of Short *versus* Long-Term Investment Accounts – GCC *versus* Malaysia



However, the levels of liquidity varied between the GCC and Malaysia. The *takaful operating companies* in Malaysia were more likely to be liquid by keeping the level of composition of investment accounts almost at 48% of total shareholders fund portfolio. As we indicated earlier in section 7.2.1, this was due to the size of shareholders fund in both groups, relative to the amount of business managed by *takaful operating companies*. It is worth mentioning that the sharp increase in 2003 and the decrease in the composition of investment accounts in 2004 were due to a newly established large *takaful company* in 2003 with a capital of US$100 million. In 2003, almost all the capital was kept in

investment accounts which led the composition to jump sharply to 52.4% of the total. In contrast, the year after (2004) where the large company started its operation, the majority of its capital was invested in other long-term asset classes to gain more profits particularly in mutual funds which led to the decrease in total investment accounts.

Although the return on short-term *sukuk* is better than investment accounts, *takaful operating companies* still maintain investment accounts as a tool to manage their liquidity. The reason behind this preference was due to several reasons which were explored through the conducted interviews. Firstly, unlike investment accounts, the *sukuk* market either in GCC or in Malaysia is illiquid and the *sukuk* listed in these markets cannot be liquidated easily. Secondly, there is a shortage of short-term *sukuk* in the market. Although several short-term government *sukuks* are available in the market, there are several problems in this type of *sukuk* due to the tendering system used by the governments. The first problem in the tendering system used in *sukuk* does not allow negotiating the price and accordingly diminished the return generated on *sukuk*. Unlike *sukuk, takaful operating companies* are able to negotiate the return on investment accounts with banks. The second problem is the complicated process of acquiring *sukuk* through the current tendering system compared with investment accounts. Finally, as the banking industry is highly regulated by central banks, the *takaful operating companies* perceive investment accounts to be safer than *sukuk*. In general, the *takaful operating companies* either in GCC or in Malaysia perceived the investment account as the safest, easiest and most liquid asset class available in the market to manage their liquidity compared to the other existing asset classes.

Lastly, since investment accounts dominated the entire short-term investment portfolio, the actual and desired portfolio composition for one-year or shorter instruments are discussed here. *Takaful operating companies* desire to decrease the level of short-term instruments in their shareholders fund investment portfolio. This desire was confirmed descriptively and inferentially for "All companies" as well as on GCC companies levels only. However, the desire to decrease the short-term instruments in Malaysia was only confirmed on the descriptive level. Inferential tests were not possible due to the small size of surveyed Malaysian *takaful operating companies*. The reason behind the desire of

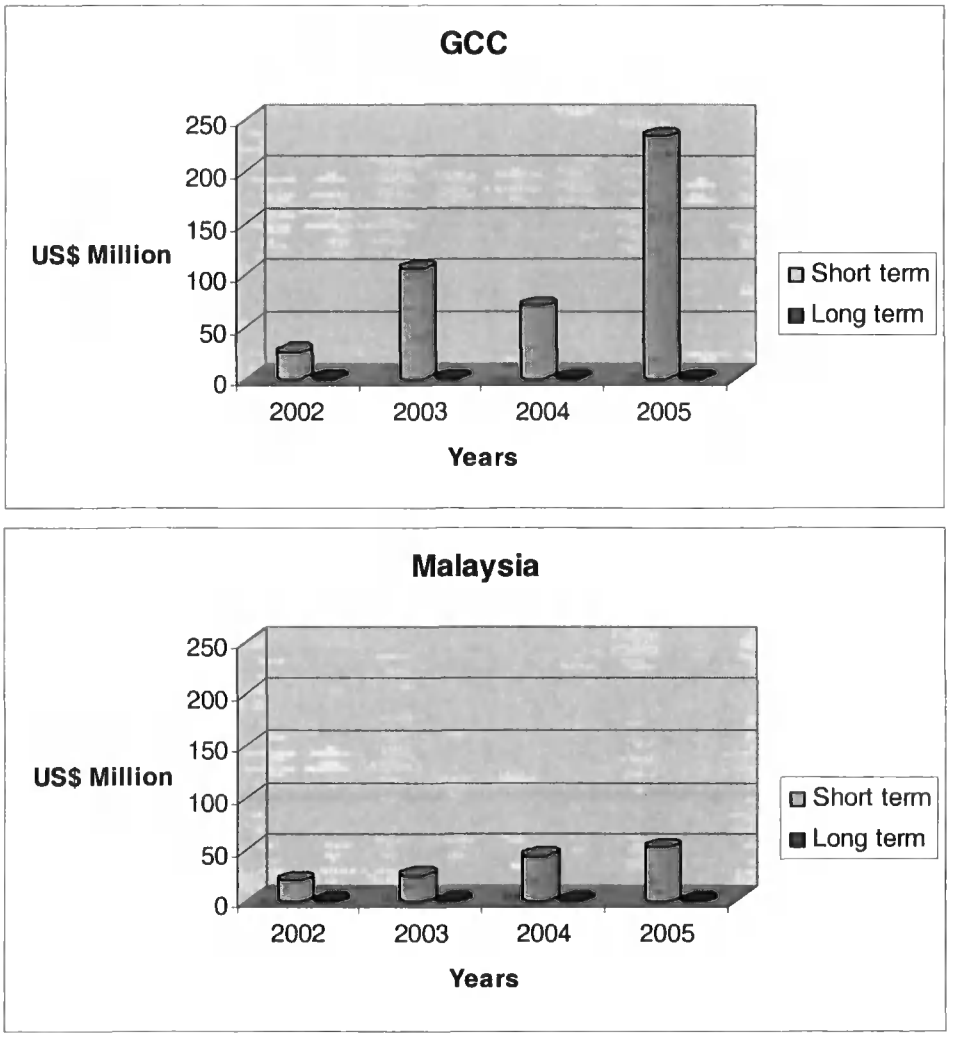
takaful operating companies to reduce the level of short-term instruments would be attributed to two reasons. The first reason is the diminishing returns on the investment accounts which dominated short-term investment portfolios during the years for the study. Secondly, as the insurance liability bearing by shareholders fund under the *takaful* structure is limited to cover the deficit arising from participants funds, *takaful operating companies* desire to reduce the short-term investment portfolio where the investment accounts with diminishing returns is the only asset class available in the market which generates a lower return. In fact, the statistical difference between actual and desired composition to decrease short-term instruments had the highest significant level compared to other examined asset classes. This reflects that *takaful operating companies* are really struggling with investment accounts as a tool in managing liquidity for *takaful* funds.

7.3.2 General fund

Takaful operating companies in both the GCC and Malaysia were also keeping their general fund liquid by investing in investment accounts rather than any other asset classes as confirmed by the low CVs. However, GCC *takaful operating companies* tend to invest more in investment accounts and maintain higher liquidity compared to the Malaysian companies. As shown in Figure 7.5, the GCC *takaful operating companies* invested almost all their investment accounts on a short-term basis while the level of short term investment accounts in Malaysia were less compared to those of GCC *takaful operating companies*. The reason for the difference between the two groups in the level of short-term investment accounts could be attributed to the nature of the long-term general fund investment portfolio composition. In GCC where the equities dominated the long-term investment portfolio, the *takaful operating companies* recognized the market risk of liquidating equities by utilizing higher investment accounts positions on a short-term basis in order to keep the general fund liquid for any future claims payment. In contrast, Malaysian *takaful operating companies*, where the *sukuk* market exists, were trying to keep less short-term investments and invested mostly in *sukuk* on a long-term basis to generate more profits with lower market risk compared to equities. Furthermore, the *takaful operating companies* in both GCC and Malaysia had utilized investment accounts

rather than any other asset classes particularly *sukuk* to manage liquidity due to the same reason mentioned in Section 7.3.1.

Figure 7.5
Comparison between Volumes of Short *versus* Long-Term Investment Accounts – GCC *versus* Malaysia



Due to the same reason mentioned in section 7.3.1, the difference between actual and desired short-term instruments is discussed here. The *takaful operating companies* desire to decrease the level of short-term instruments in their general fund investment portfolio. This desire was confirmed descriptively and inferentially on All and GCC *takaful operating companies* level. However, in Malaysia the desire to decrease was confirmed only at the descriptive level due to the small size of surveyed Malaysian *takaful operating*

companies. As the entire insurance liabilities under this fund are on the short term basis, then ideally the *takaful operating companies* should desire to increase the short-term investment portfolio. However, given the fact that the investment accounts is the only suitable asset class currently available for *takaful operating companies* to manage their liquidity which experienced diminishing returns during years of the study due to the pegging of currencies in the surveyed countries to the US dollar, the *takaful operating companies* desire to reduce investment accounts which dominated short-term portfolio to enhance their return on investment. The statistical difference for short-term instruments was the highest compared to other asset classes in general which showed the desire of *takaful operating companies* to reduce these instruments. If other instruments were available for *takaful operating companies* to manage their liquidity, then this desire of reducing short-term instruments will disappear.

7.3.3 Family funds

Takaful operating companies in Malaysia were keeping their family fund liquid to cover mortality risks under PRF by also utilizing investment accounts. In fact, the entire *takaful operating companies* are maintaining the same strategy toward investing in investment accounts to manage their liquidity for the family fund which was confirmed by low CV results. However, the composition of investment accounts decreased during the years of the study toward composition of *sukuk*. This was due to the nature of liabilities under the family fund as the minority of family funds came from the risk protection part. Therefore, there was no desire to keep the fund in liquid assets such as investment accounts as the majority of the investments should be directed to generate higher return for the savings parts of the participants' policies.

7.4 Investment in *Sukuks*

7.4.1 Shareholders fund

Although the investment in *sukuk* represented a minor composition of overall shareholders fund investment portfolio, the volume of this asset class had increased during the years of the study. The entire investments in *sukuk* were mostly made by the *takaful operating companies* in Malaysia except in 2004 and 2005 where one *takaful company* in the GCC invested a negligible amount in *sukuk*. There are several reasons behind this difference between the two groups toward investment in this asset class which were confirmed statistically at a 90% confidence level in 2004 and 2005.[45] The first reason is the limited primary market for both government and corporate *sukuks* in the GCC. Although there had been many *sukuks* issued in the GCC market, *takaful operating companies* are still facing problems in buying *sukuks*. For government *sukuk*, the tendering system used by the government makes *sukuk* less attractive for *takaful operating companies* as indicated earlier in section 7.3.1. With regards to the corporate *sukuk*, the *takaful operating companies* face difficulty in the higher subscription amounts required to participate in the primary corporate issues. We have seen many issues of *sukuk* in the GCC countries but the demand for these *sukuks* are very high and are absorbed immediately by the market. It is worth mentioning that the different *shari'ah* interpretations of *sukuk* structure in the GCC have really affected the growth of the *sukuk* market in the GCC. The second reason contributing to the difference between the two groups is the absence of a liquid secondary market for *sukuk* in the GCC which was highlighted by several *takaful operating companies* in the study. As there has been a shortage of supply of *sukuk* in the primary market, the investors in *sukuks* prefer to hold the *sukuk* rather than trade them in the secondary market. Finally, the investment strategy implemented by some *takaful operating companies* in the GCC led to the absence of *sukuk* in their investment portfolio. Some companies tried to avoid investing in *sukuk* even if this asset class was available in the market due to lower income generated compared with other fluctuating or illiquid flourishing asset classes in the GCC such as

[45] These reasons were highlighted by leaders of *takaful operating companies* during the interviews.

equities and real estate. Unlike in the GCC, the government and corporate *sukuk* market in Malaysia is at a relatively developed stage. In fact, after the Asian crisis, many corporations in Malaysia started to use *sukuk* as a tool for financing and continuously preferred this asset class than traditional financing. Eventually this has introduced more corporate *sukuk* to the market which allowed *takaful operating companies* to invest in these *sukuks*. Although the primary market is relatively developed in Malaysia, the secondary market has yet to improve. This is due to the relatively low liquidity in the secondary market.

Moreover, it should be highlighted that all the *sukuk* positions that the *takaful operating companies* had under the shareholders fund were only invested in corporate *sukuk* and mostly on a long-term basis. The interviews with Malaysian *takaful operating companies* revealed that this behaviour in Malaysia for not buying any government *sukuk* was due to the tendering system used by Bank Negara Malaysia (BNM) for government *sukuk*. This system also allows conventional companies to bid for government *sukuk* as they are also subject to the same mandatory minimum investment requirement in government securities by BNM. As conventional companies are larger than *takaful operating companies*, they are able to acquire substantial amounts of government *sukuk* with a good price. With the substantial acquisition of government *sukuks* by conventional companies, *takaful operating companies* are left with very few government *sukuks*. In order for *takaful operating companies* to comply with the mandatory investment requirements, they have to buy them from conventional companies at higher prices. This problem on tendering procedures for government *sukuks* led the *takaful operating companies* in Malaysia to desire keeping the level of government *sukuk* in their portfolio unchanged at nil position (this desire was not confirmed statistically). Unlike government *sukuk*, the *takaful operating companies* in Malaysia desire to increase the level of the long-term corporate *sukuk* in their shareholder fund investment portfolio from the current level of 12.2% to 30.4%. This desire was also not confirmed statistically due to the small sample size.

Only one GCC *takaful company* invested a negligible amount in corporate *sukuk* entirely on a short-term basis. This was due to the persuasion of the *takaful company's* related party to buy the related party's *sukuk*. Although the current investment in this asset class was negligible, the *takaful operating companies* in the GCC desire to increase both the composition of long-term government and long-term corporate *sukuks* in their shareholders fund investment portfolio. For the government *sukuk* they desire to increase the level from the current level of 0% to 9%. This desire was not confirmed statistically either on all companies' level or on the GCC companies' level due to the difference among *takaful operating companies* toward investing in this asset class. For the corporate *sukuk*, the GCC companies desire to increase this level from the current level of 0.4% to 11%. Although the result for long-term corporate *sukuk* for all surveyed companies was statistically significant at a 90% confidence level, it was not significant for GCC *takaful operating companies*. This was due to the desire of two *takaful operating companies* in GCC to invest in other asset classes. One of these two companies desired to concentrate aggressively in equities and real estate, while the other company desired to be more conservative and to invest only in the long-term government *sukuk*.[46] With the introduction of international regulations in the GCC region, the demand of *sukuk* in the GCC would be higher and the aggressive behaviour would disappear.

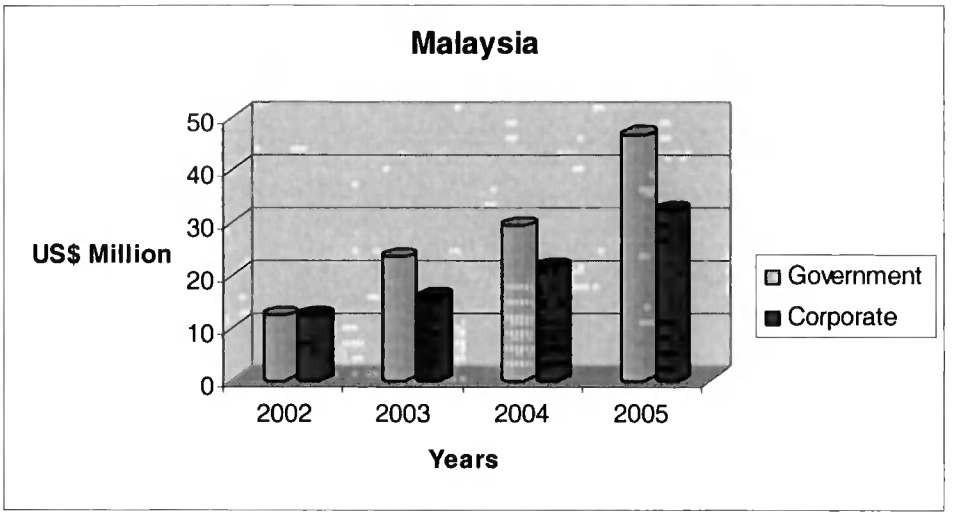
7.4.2 General fund

In fact, the entire investment in this asset class in the general fund investment portfolio was made by the *takaful operating companies* in Malaysia only. This difference in the behaviour of investment in *sukuk* between the GCC and Malaysia was confirmed statistically at a 90% confidence level during all the years of the study for the aggregate *sukuk* portfolio and for corporate *sukuk*. The reason behind zero investment of GCC *takaful operating companies* in this asset class was due to the same reasons mentioned in the section 7.4.1.

[46] Desired composition=0% and Actual composition=0%, therefore, the result is there are no significant differences between Actual and Desired.

As shown in Figure 7.6, the *takaful operating companies* in Malaysia invested more in government *sukuk* compared to corporate *sukuk*. Gradually, the contribution of investment in government *sukuk* to the overall *sukuk* portfolio was increasing and accounted to 59.0% of total *sukuk* portfolio by the end of 2005. Although the *takaful operating companies* in Malaysia had nil position of government *sukuk* in their shareholders fund due to the high acquisition costs as explained earlier, this type of *sukuk* existed and gradually dominated the general fund *sukuk* portfolio where the cost issue is still valid. The reason behind this was the regulation imposed by Bank Negara Malaysia (BNM). In the regulation, there is a mandatory investment requirement to invest at least 15% of the total value of the asset of the *takaful* funds in government securities. In fact, the increased investment in government *sukuk* in the general fund was due to the increase of the size of the fund. If the size of the fund increases, then the 15% mandatory requirement increases the volume of the government *sukuk* required to be invested in government *sukuk* by the regulation. Also the result of the difference between actual and desired portfolio composition for long-term government *sukuk* confirmed the unattractiveness of this asset class. The *takaful operating companies* in Malaysia would like to decrease the current level of long-term government *sukuk* in their general fund investment portfolio from 26.5% down to 18.5% of total investment portfolio of general fund. This desired result was also confirmed by some leaders of *takaful operating companies* in Malaysia during the conducted interviews. In contrast, the long term corporate *sukuk* is more attractive for Malaysian *takaful operating companies*. According to the study findings, the *takaful operating companies* in Malaysia desire to increase the level of corporate *sukuk* from the current level of 18.5% to 34.4% which was not confirmed it statistically due o the small sample size.

Figure 7.6
The Volume of *Sukuk* Portfolio in Malaysia



On the other hand, although the GCC *takaful operating companies* had no investment in *sukuk* in the general fund investment portfolio, they desire to increase both the long-term government *sukuk* from 0% to 13% and long-term corporate *sukuk* from 0% to 18.2%. Their desire to increase long-term government *sukuk* was not confirmed statistically either on all companies' level or on the GCC companies' level due to the difference between *takaful operating companies* toward investing in this asset class. Although the result for long-term corporate *sukuk* for all surveyed companies was statistically significant at a 90% confidence level, it was not significant at the GCC *takaful operating companies'* level. This was due to the desire of two *takaful operating companies* to invest aggressively in other asset classes such as equities and not hold any corporate *sukuk* in their general fund investment portfolio.

7.4.3 Family funds

The investment in *sukuk* was the major first asset class in the family fund investment portfolio. This was due to the nature of family fund business in Malaysia as the majority of the policies sold in the market were savings policies. Since the majority of polices were the savings polices, most of the contributions paid by the participants went to the savings parts of the family fund. In order for *takaful operating companies* to generate a fixed-stream income on their family fund investment, the only suitable instrument is the investment in *sukuk*.

The government *sukuk* which was an unattractive asset class for *takaful operating companies* in Malaysia existed in the family fund investment portfolio due to the same reason mentioned in section 7.4.2. Due to the cost of acquiring government *sukuks*, *takaful operating companies* desire to decrease this asset class in their portfolio from 19.9% down to 18.1%. However, this desire was not confirmed statistically due to the small sample size in Malaysia. With regards to the long-term corporate *sukuk*, the *takaful operating companies* desire to increase this asset class in their portfolio from 32.1% to 40.3%. However, this desire was also not confirmed statistically due also to the small sample size. The desire to increase the level of long-term corporate *sukuk* was driven by higher fixed returns that can be generated from this asset class. Although the corporate *sukuk* exists and is relatively at an advanced stage in Malaysia, the *takaful operating companies* still require more issues and particularly those *sukuks* with good ratings.

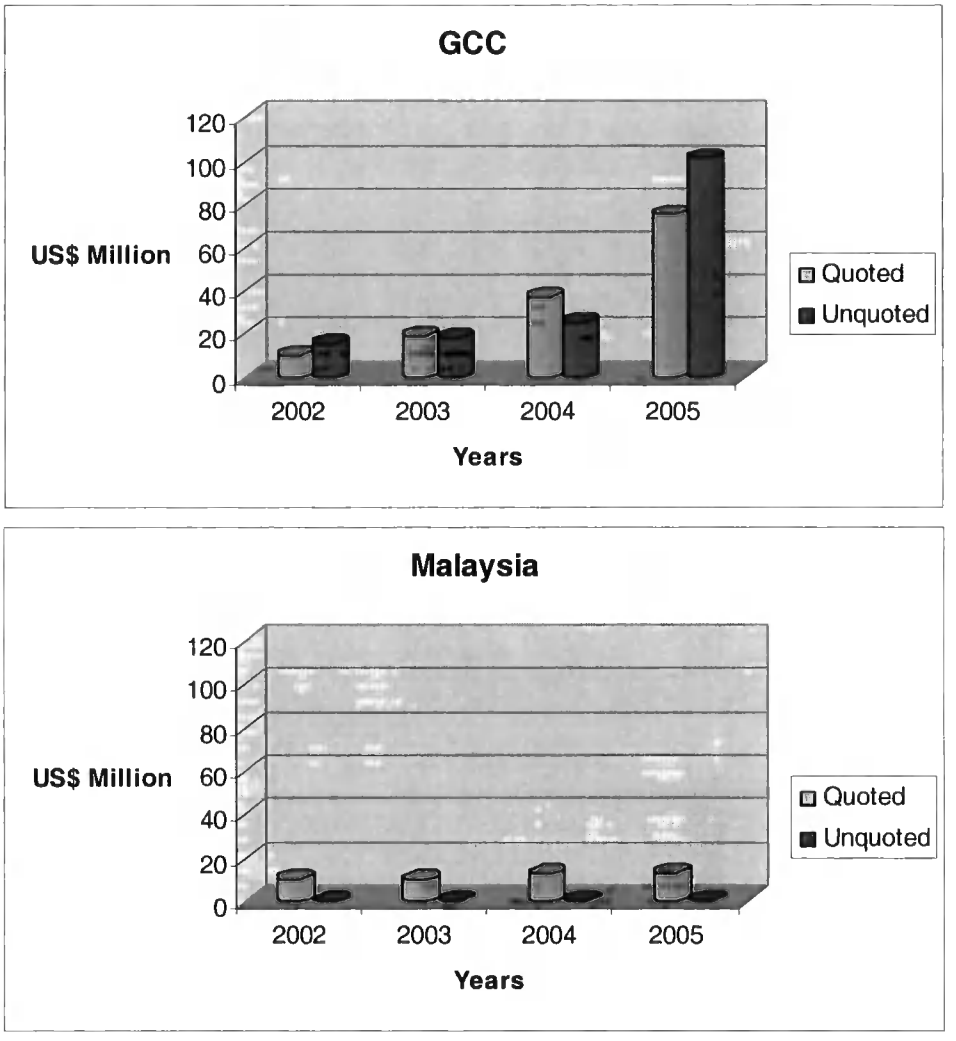
7.5 Investment in Equities

7.5.1 Shareholders fund

The investment in equities was the second major asset class in the shareholders fund investment portfolio. In fact, the overall investment in equities was shaped by the *takaful operating companies* in the GCC. The dominance of the GCC in equities portfolio in the shareholders fund investment portfolio reached its peak in 2005 which was confirmed statistically at a 90% confidence level when the difference between GCC and Malaysia

was examined. The *takaful operating companies* in the GCC tried to offset the lower returns generated from investment accounts and enhance their return on their shareholders fund investment portfolio by investing in equities. The booming stock markets in the GCC countries during the years of the study played a major role in attracting the *takaful operating companies* to invest in this asset class. It should be highlighted that both the quoted and unquoted equities registered substantial increase in 2005. The major increase in 2005, in quoted equities was due to either the booming stock exchanges in the surveyed countries or the increases in the number of shares in the equities portfolio. However, the booming stock exchanges is most likely to be the reason behind the increase in the quoted equities in 2005 as many stock exchanges in the GCC registered dramatic increases during this year. Moreover, due to the existence of reasonable composition in equities in current shareholders fund investment portfolio, the *takaful operating companies* in the GCC desire to increase the level of quoted equities slightly from 17.3% to 22%. In contrast, the Malaysian companies' equities portfolio composition which was dominated by quoted equities decreased gradually during the years of the study. This was due to the priority given by the Malaysian companies to keep the shareholders fund in liquid position. Furthermore, the Malaysian companies desire to increase the quoted equities composition slightly from 12.1% to 13%. This desire confirms the preference of Malaysian companies to maintain the liquidly of the shareholders fund as priority for their investment. In general, the quoted equities which comply with *shari'ah* principles are available in the market and the *takaful operating companies* have not had any difficulty finding this asset class in the market.

Figure 7.7
Comparison between Volumes of Quoted and Unquoted Equities Portfolio – GCC *versus* Malaysia



Furthermore, the investments in unquoted equities showed that an increasing trend dominated the equities portfolio in 2005 for the first time during the years of the study. As shown in Figure 7.7, the overall trend towards investing in unquoted equities was caused by *takaful operating companies* in the GCC which was confirmed by the CVs which were larger for unquoted equities. Also, this difference between GCC and Malaysia in investment in unquoted equities was confirmed statistically at a 90%

confidence level in 2005. The dramatic increase in the unquoted equities was caused by some *takaful operating companies* in the GCC which were participating in new start-up ventures in sectors other than insurance. These companies wanted to invest aggressively in unquoted equities to gain profit when these targeted companies go to initial public offering. As the GCC companies had higher levels of composition in unquoted equities, they desire to reduce their holdings from 17.7% down to 14.6%. It should be noted that two of five GCC *takaful operating companies* would like to maintain this asset class above 30% of total. Unlike the GCC, in Malaysia the unquoted equities composition was negligible and the *takaful operating companies* desire to increase this asset class from the current level of 0.4% to 3.7%. The reason for the negligible investment in unquoted equities would be due to the preference of *takaful operating companies* in Malaysia to invest mainly in liquid asset classes. In fact, the unquoted equities are less liquid compared to quoted equities.

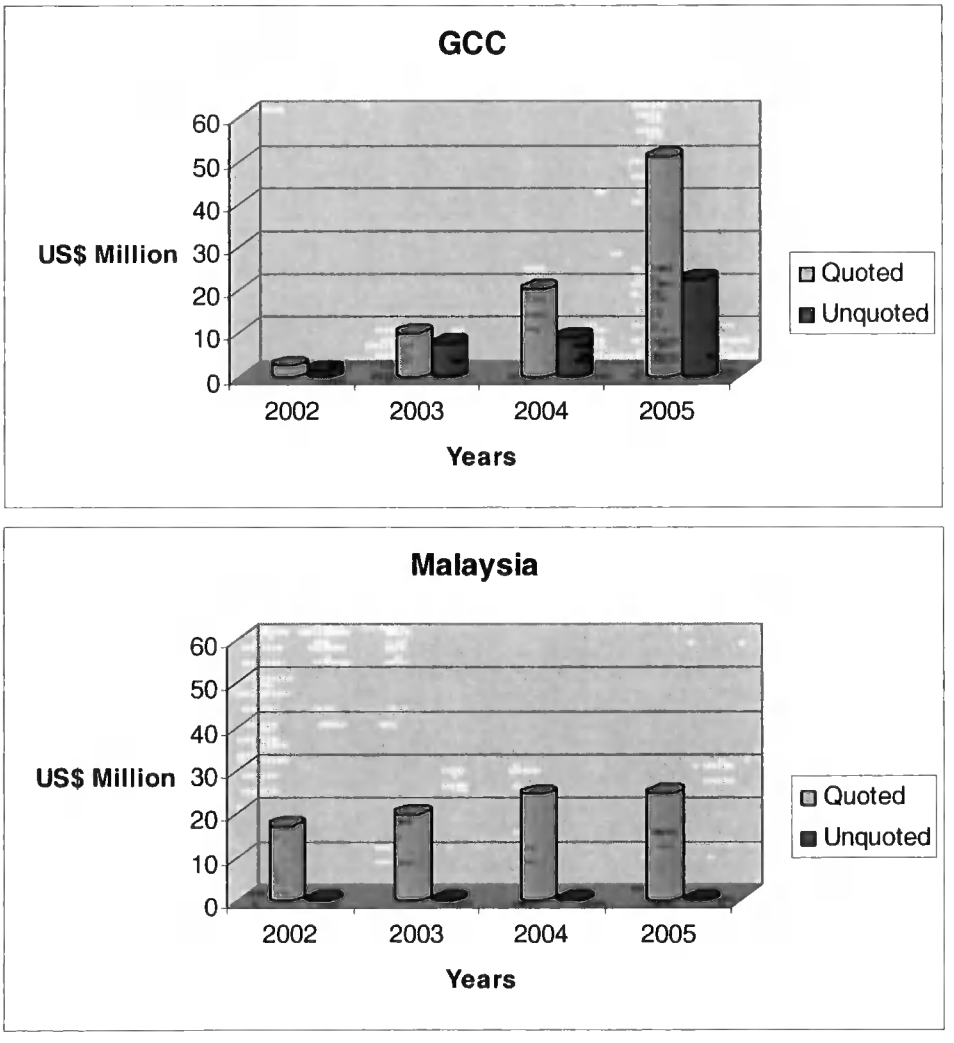
In general, the *takaful operating companies* in the GCC gave priority for the higher return on the shareholders fund as their investment strategy which led them to invest higher composition in equities. Unlike the GCC, Malaysian companies gave priority to the liquidity of the shareholders fund and accordingly invested reasonable composition in equities.

7.5.2 General fund

As shown in Figure 7.8, the investment in equities continued its increasing trend during the years of the study with a major increase observed in the GCC. The composition of this asset class (46.8%) superseded investment accounts (42.3%) in the GCC and became the first asset class in the general fund by the end of 2005. Some GCC *takaful operating companies,* with the pressure for higher demand from their shareholders to enhance overall returns for the company, would try to offset the lower returns generated from investment accounts by investing aggressively in equities. While the investment in equities might not be a serious issue under the shareholders fund, the existence of this aggressive position of this asset class under the general fund would be perceived as a matter of high concern due to the same reasons mentioned in section 7.2.2. However, the

takaful operating companies in the GCC desire to decrease the level of quoted equities from 21.9% down to 19.8%. It is worth mentioning that the existence of basic regulations and absence of international regulations in some GCC market led some *takaful operating companies* to this aggressive behaviour. Unlike the GCC, the Malaysian companies held reasonable composition of quoted equities which was around 14%. They also desire to maintain the level of this asset class to the current level from 14.1% to 14.4%.

Figure 7.8
Comparison between Volumes of Quoted and Unquoted Equities Portfolio – GCC *versus* Malaysia



Although relatively the liquidity of quoted equities might justify the investment in this asset class, the dramatic increase in the unquoted equities is really a concern as this exposes the general fund to liquidity and market risks. Some *takaful operating companies* in the GCC had invested aggressively in the unquoted equities to gain profit when these targeted companies go to initial public offering which is very difficult to achieve under the general fund where the liabilities are on a short-term basis. In fact, the investment in unquoted equities was influenced by two companies where this asset class represented 41.8% and 19.8% of their total general fund investment portfolio, respectively. The findings of the comparison between actual and desired portfolio confirm that the *takaful operating companies* (which include the aggressive two above-mentioned companies) recognize the risks associated with investment in unquoted equities under the general fund and their desire to decrease the level of unquoted equities dramatically from 23.1% down to 1.4%. This desire was not confirmed statistically because some *takaful operating companies* had zero position in this asset class and they would like to maintain it at as zero.[47]

Unlike the GCC, most *takaful operating companies* in Malaysia avoid investing the general fund in unquoted equities. Therefore, the *takaful operating companies* in Malaysia desire to increase the level of unquoted equities but also to a negligible level from 0.1% to 0.2%. This is because the Malaysian takaful operating companies realize the illiquidity of this asset class especially for the general fund where the liabilities are on the short-term basis. Also, the risk associated with this investment would be another reason.

7.5.3 Family funds

The Malaysian *takaful operating companies* want to enhance their returns on savings of the participants by investing in equities. However, in the later years of the study some *takaful operating companies* moved to *sukuk*. This difference between companies was confirmed by CV results which showed more variation among companies during the later

[47] Desired composition=0% and Actual composition=0%, therefore, the result is there are no significant differences between Actual and Desired.

years. As the invested money in the participants fund under family *takaful* belongs to the participants' savings, the *takaful operating companies* do not want to expose the participants to exposure of the unquoted equities such as new start-up companies. Therefore, almost 99% of the equities portfolio was invested in quoted equities listed in stock exchanges. On the other hand, the *takaful operating companies* desired to decrease the level of quoted equities slightly from 13.2% down to 11.1%. However, they want to increase unquoted equities to a negligible level from 0.1% to 0.2%. This desire of unquoted equities was shaped by the same *takaful company* mentioned in Section 7.5.2. It should be noted that the reason behind the decline of the CV in 2005 was due to the increase in the number of *takaful operating companies* which invested in this asset class.

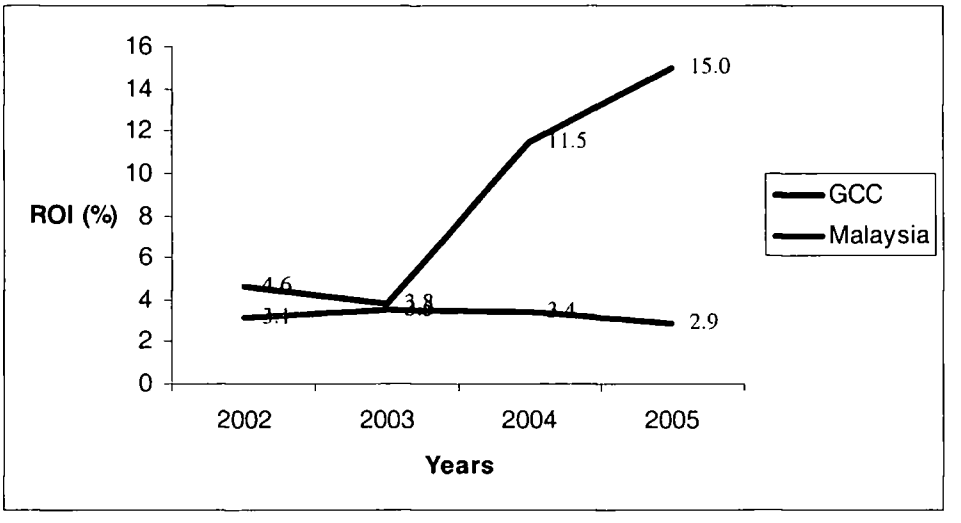
7.6 Return on Investment (ROI)

7.6.1 Shareholders fund

As shown in Figure 7.9, the Malaysian *takaful operating companies'* generated one-digit return on investment (ROI) with a declining trend, while the GCC *takaful operating companies* showed a double-digits ROI with an increasing trend to reach 15% by the end of 2005. The gaps between the average ROI for the GCC and Malaysia widened during the years 2004 and 2005. This difference between the two groups was supported statistically by both descriptive and inferential analyses. With regards to descriptive analysis, the CV for net income increased to reach 122.5% by end of 2005. Also, the significant difference between GCC and Malaysia in ROI was supported statistically at a 90% level of confidence in 2005. The lower ROI in Malaysia would be attributed to the dominance of investment accounts which generated lower profits than other asset classes particularly due to the diminishing US interest rates which the Malaysian ringgit was pegged to. Unlike Malaysia, the GCC companies invested a lower composition in investment accounts as the capital of *takaful operating companies* was larger than business underwritten by them and assets under their management. Also, the *takaful operating companies* in the GCC offset lower returns coming from investment accounts

by investing in other asset classes which generated more profits and which were booming during the years of the study such as equities and real estate.

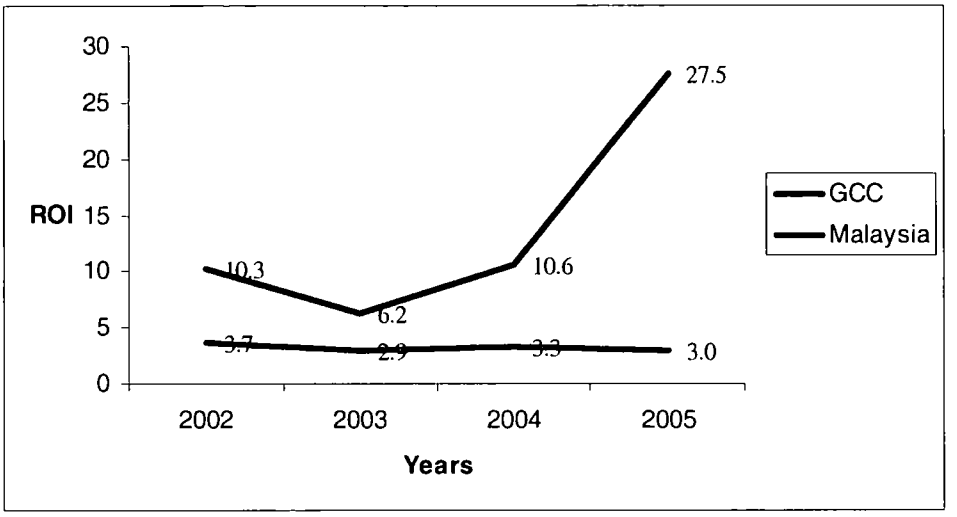
Figure 7.9
The Return on Investment (ROI) – GCC *versus* Malaysia



7.6.2 General fund

As shown in Figure 7.10, the average return on investment (ROI) on general fund investment portfolio in the GCC was higher than the average ROI for Malaysian *takaful operating companies*. The GCC *takaful operating companies* over-performed and generated a double-digit ROI particularly in 2005 when the ROI reached 27.4%. On the other hand, the *takaful operating companies* in Malaysia underperformed with an average ROI of 3.0% in 2005. The significant difference in the ROI in 2005 between the two groups was confirmed statistically at a 90% confidence level.

Figure 7.10
The Return on Investment (ROI) – GCC *versus* Malaysia



The reasons behind this unusual return in the GCC compared to ROI of the conventional general insurance industry could be summarized in two points. Firstly, the aggressive investment strategy of GCC *takaful operating companies* by investing a higher composition of the general fund investment portfolio in equities where many stock exchanges in the GCC region reached its peak in 2005. The second reason would be attributed to the lack of advanced regulations in the GCC, apart from the basic regulations stated in the insurance laws in these countries.[48] The basic regulation does not restrict the companies from investing aggressively in fluctuating or illiquid asset classes such as equities and real estate. In fact, the ROI for GCC *takaful operating companies* is really unusual and reflects the aggressive strategy implemented by some *takaful operating companies* in the GCC.

[48] Bahrain is the first country in the GCC to introduce advanced regulation for the insurance industry. In 2005, the Central Bank of Bahrain introduced a comprehensive rule book to regulate the insurance industry with special regulations pertaining to the *takaful* industry. The effect on this regulation cannot be determined quantitatively as it was implemented in 2006. However, a big impact of this regulation was qualitatively seen during the researcher's meeting with the top leaders of the *takaful operating companies* in Bahrain.

7.6.3 Family funds

The average return on investment (ROI) on family fund investment portfolio by Malaysian *takaful* operating companies was almost stable during the years of the study. This is because the *takaful operating companies* invested mostly in *sukuk* which generated fixed income.

7.7 Mutual Funds/Unit Trusts

Investment in the mutual funds/unit trusts were mainly made by the *takaful operating companies* in the GCC. The majority of the investment in this asset class was concentrated in the shareholders fund investment portfolio. Other than the shareholders fund, the *takaful operating companies* in the GCC had negligible investment in mutual funds/unit trusts. This asset class was the third major asset class for GCC companies in their shareholders fund investment portfolio in 2003 and 2004. However, the position of this asset class as a major asset class was lost in 2005 and its composition decreased to 9.6%. This was due to the unusual increase in investment in subsidiaries caused by one large *takaful company* in the GCC.

It should also be noted that the decrease in this asset class did not indicate the reduction of the impotence of mutual funds/unit trusts in the shareholders fund investment portfolio as the volume during the same year grew by 12.4%. Unlike the GCC, the Malaysian companies invested negligible composition in this asset class. Although the difference in terms of investment in mutual funds/unit trusts was very large between the two groups, this difference was not confirmed statistically at 90% confidence level. This was due to the factor that the investments in mutual funds/unit trusts was shaped only by two companies in the GCC with composition of this asset class representing 51.7% and 46.7% of total shareholders fund investment portfolio, respectively. The remaining companies in the GCC either had zero or small composition of less than 4.5%. This justification was also supported by the higher CV results during all years of the study which meant higher variability among *takaful operating companies* toward investment in this asset class. As

the trend in investment in this asset class was influenced by two *takaful operating companies* in the GCC, the *takaful operating companies* in the GCC desire to decrease this asset class from the current level of 28.9% down to 9% of the total shareholder fund investment portfolio.

The *takaful operating companies* in both groups had invested negligible amounts in mutual funds/unit trusts in the general fund investment portfolio with very high variability between them. The *takaful operating companies* desire to increase the level of their holdings in this asset class from 0.4% to 8.2%. This desire was confirmed statistically at 90% confidence level at 'All' companies' level. GCC *takaful operating companies* desire to increase the holding of this asset class from 0.0% to 10.0%. However this desire was not confirmed statistically at the GCC level due to the desire of some *takaful operating companies* to increase this asset class in their portfolio. Similarly in Malaysia the desire to increase this asset class slightly from 0.5% to 5.3% the small sample size did not allow the confirmation of this desire inferentially.

With regards to Family funds, Malaysian *takaful* operating desired to increase the level of this asset class from 0.5% to 5.2%.

In general, the *takaful operating companies* desire to increase mutual funds/unit trusts. However, the appetite for *takaful operating companies* in the GCC toward the increase of this asset class was higher compared to Malaysian companies.

7.8 Real Estate Investments

Real estate investments were the major third asset class for *takaful operating companies* in the GCC for all years of the study under general fund investment portfolio. However, it lost this third position in the shareholders funds investment portfolio to both the mutual funds/unit trusts (2003 and 2004) and investment in subsidiaries (2005). Although real estate is one of the most booming sectors in the GCC, only three companies out of seven invested in this asset class either in the shareholder fund or the general fund. Therefore,

the CV for this asset class was high. In fact, two companies of the three had invested heavily in this asset class.

Taking into consideration the flourishing real estate sector and the limited liability under the *takaful* shareholder fund, the *takaful operating companies* in the GCC desire to increase this asset class from the current level of 0.4% to 15.2% in their shareholders fund investment portfolio. This desire confirmed statistically at All companies level at 90% confidence level and at 90% confidence level on the GCC companies level. Also, the *takaful operating companies* in the GCC would like to increase composition of real estate investments in their general fund investment portfolio from 1.6% to 14%.The positive trend toward this asset class was attracted by the boom in the real estate sector in the GCC market. However, this desire was not confirmed statistically due to preference of some *takaful operating companies* not to invest general fund investment portfolio in this illiquid asset class where the liabilities are on the short-term basis. It should be noted that two of the *takaful operating companies* want to invest aggressive compositions in the real estate and the general fund investment portfolios.

In contrast, in Malaysia this asset class was the only major asset class in the shareholders fund investment portfolio. This was due to the fact that all the investment in real estate in Malaysia being in the shareholder, general or family fund was done by one *takaful company* during all years of the study. Also, the desire for increase of this asset class for all the above-mentioned funds were also shaped by this company.

7.9 Conclusion

The analysis presented above sheds an interesting light on the investment behaviour of *takaful* operating companies in the GCC countries and Malaysia, given the *shari'ah* constraints on investment. One may note, in particular, the influences of the market environment and the regulatory environment. In the first place, Family *takaful* is much less developed in the GCC countries than in Malaysia, which results in differences between the investment behaviour of the *takaful operating companies* in the two regions. Because the *sukuk* market is more developed in Malaysia, the Malaysian companies invest extensively in the *sukuks*, and particularly in corporate *sukuk* which are cheaper for them to purchase. By 2005, 52% of Family *takaful* funds in Malaysia were invested in *sukuk*. In contrast, the GCC companies invest substantially in equities and real estate. But even for the general *takaful* funds, Malaysian companies invested substantially in *sukuk* which represented 45% of the funds in 2005. By contrast, in the case of shareholders' funds they invested only about 8% of such funds in this asset class, preferring investment accounts and real estate. The level of investment in *sukuk* is partly explained by regulations requiring a certain percentage of general *takaful* funds to be invested in government securities. There were no similar regulations in the GCC countries, although Bahrain was introducing regulation to be implemented in 2006.

The GCC companies invested more extensively in equities. These represented 46.8% of their general funds portfolios in 2005, with 42.3% being placed in investment accounts. Their rates of return on general funds investments were substantially higher than those of the Malaysian companies, ranging from 6.6% to 27.5% for the GCC companies as against between 2.9% and 3.7% for the Malaysian companies. For the GCC companies' shareholders' funds, equities also represented between 20% and 37% of the total portfolios (26.9% in 2005), but a greater proportion was placed in investment accounts. The GCC companies were much more highly capitalized than their Malaysian counterparts, but their rate of return on shareholders' funds investments was higher, especially in 2004 and 2005.

In general, therefore, the GCC companies achieved higher returns on investment, held more risky portfolios, but were more highly capitalized. Issues for potential regulatory concern were the levels of their investments in real estate, an illiquid and potentially volatile asset class, and the levels of their investments of their general funds in equities (46.8% in 2005), also a volatile asset class.

Finally, it is noteworthy that there was evidence in both regions that *takaful* operating companies were holding relatively liquid assets in their shareholders' funds portfolios, so as to be able to provide liquidity to the *takaful* (underwriting) funds by means of a *qard* facility in case of solvency problems.

CHAPTER EIGHT

CONCLUSION AND RECOMMENDATIONS

8.1 Introduction

This chapter summarizes and discusses the findings of the study and presents the concluding remarks of the thesis. Moreover, the recommendations derived from the study are also discussed on three levels namely regulatory authorities, *takaful operating companies*, and Islamic banks/windows. Finally the areas recommended for future research are highlighted at the end of this chapter.

8.2 Findings of the Study

The findings that emerged from this study are highlighted and discussed in this section. However, the reader should take into consideration the limitations of this study, which are mentioned later in Section 8.4 of this chapter. The main findings concluded from the study can be summarized as follows:

(a) The GCC *takaful* operating companies dominated the shareholders fund investment portfolio and they accounted almost 86% of total shareholders fund investment portfolio by the end of 2005. The reasons behind this dominance would be attributed to the larger average size of capital for GCC *takaful operating companies* and to their nature of asset classes comprising shareholders fund investment portfolio.

(b) The gap in the size of general fund investment portfolio between the GCC and Malaysia gradually shrunk during the years of the study, to be almost nil by the end of 2005. This was due to an increase in the number of *takaful operating companies* that emerged in the GCC and the growth in their general contributions underwritten by them.

(c) The family *takaful* is much less developed in the GCC compared with Malaysia where the family *takaful* dominated the total investment portfolio of Malaysian *takaful* operating companies. This is due to the high level of awareness about family products in Malaysia.

(d) The *takaful operating companies* in the GCC are over-capitalized in relation to their level of gross contributions underwritten and investments they handled. Therefore, there was no incentive to keep the shareholders fund more liquid and priority was given for enhancing the return on shareholders fund investment portfolio. Unlike the GCC, the Malaysian *takaful* operating companies are less capitalized in relation to the amount of business managed by them. This led the Malaysian *takaful operating companies* to give priority for the liquidity of shareholders fund investment portfolio where the investment accounts represented almost 48% of total Malaysian shareholders fund investment portfolio.

(e) The insurance sector in the GCC was governed by old laws which are required to be updated to cater for the development in this industry. For the investment rule, the existing insurance laws which governed *takaful operating companies* as well stated basic limits for some asset classes that the insurance companies should comply with. These limits are not sufficient to stop the aggressive behaviour of some insurance companies. Bahrain is the first country in the GCC to introduce advanced regulation for the insurance industry. In 2005, the Central Bank of Bahrain introduced a comprehensive rule book to regulate the insurance industry with special regulations pertaining to the *takaful* industry. The effect of this regulation cannot be determined quantitatively as it was implemented in 2006. However, a big impact of this regulation was noted qualitatively during the researcher's meetings with the top leaders of the *takaful operating companies* in Bahrain. Unlike the GCC, Bank Negara Malaysia (BNM) is heavily regulating the insurance industry and has special laws for *takaful operating companies.*

(f) There are similarities between *takaful operating companies* in both GCC and Malaysia in terms of using the investment accounts as a tool to manage liquidity for all funds which are shareholders fund, general fund and family funds. In particular, the majority of investment accounts either in the GCC or in Malaysia are invested on short-term basis. This is because the *takaful operating companies* perceive the investment accounts as the safest, easiest and most liquid asset class available in the market. Although *sukuk* is a good alternative, the *takaful operating companies* are reluctant to use this asset class to manage their liquidity due mainly to illiquidity of the *sukuk* market.

(g) Due to the pegging of most currencies in the surveyed regions to the US dollar, the return on investment accounts diminished during the entire period of the study. As the investment accounts dominated one year or shorter instruments, *takaful operating companies* in both the GCC and Malaysia desire to decrease the level of one-year or less instruments. This desire was confirmed statistically on descriptive and inferential levels which show how the *takaful operating companies* struggle in managing their liquidity through this asset class. The *takaful operating companies* in both the GCC and Malaysia are in convergence in terms of desire to find alternatives for investment accounts.

(h) Although the *takaful operating companies* theoretically held different positions regarding the role of the capital under the *takaful* structure, there was evidence in both regions that *takaful* operating companies were holding relatively liquid assets in form of investment accounts in their shareholders' fund portfolios, so as to be able to provide liquidity to the *takaful* funds by means of *qard hasan* facility in case of solvency problems.

(i) The *takaful operating companies* in the GCC held an aggressive investment composition in equities in their general fund investment portfolio. This asset class even superseded investment accounts and became the first asset class comprising 46.8% general fund investment portfolio by the end of 2005.

Aggressive investments in equities for general fund investment portfolio where the liabilities are on the short-term basis would expose the *takaful operating companies* to fluctuation of equity price in the stock market. The increase in unquoted equities proves that the *takaful operating companies* in the GCC had an aggressive investment mentality towards investment of general fund investment portfolio. The reason for this aggressive investment in equities would be attributed to three factors. The first factor is the absence of active primary and secondary markets for *sukuk*. Secondly, a general aggressive investment mentality was observed in some companies towards investing in equities and real estate which had been experiencing substantial growths in the GCC region. Finally, the demand from the shareholders of the *takaful operating companies* for higher Returns on Equity (ROE). Unlike the GCC, the *takaful* operating companies in Malaysia held a reasonable composition in equities between 14.2% and 16.8%.

(j) As the *sukuk* market is more developed in Malaysia, the Malaysian companies invest extensively in these securities in all funds investment portfolio, and particularly in corporate *sukuk* which are cheaper for them to purchase. The level of investment in *sukuk* is partly explained by regulations requiring a certain percentage of general *takaful* funds to be invested in government securities. However, the absence of active primary and secondary markets for *sukuk* in the GCC would be one of the factors that led operating GCC *takaful* companies not to invest in this asset class.

(k) The *takaful operating companies* in Malaysia are avoiding investing in government *sukuk* due to the high acquisition cost of these securities. This was clearly seen in the shareholders fund investment portfolio where the *takaful operating companies* invested only in corporate *sukuk*. Although the companies preferred not to invest in government *sukuk*, this type of *sukuk* existed and increased in both the general and family fund *sukuk* portfolio where the cost issue is still valid. The reason behind this was the regulation imposed by Bank Negara Malaysia (BNM). In the regulation, there is a mandatory investment

requirement to invest at least 15% of the total value of the asset of the *takaful* fund in government securities. In fact, the increased investment in government *sukuk* in the general and family funds was due to the increase of the size of the fund. If the size of the fund increases, then the 15% mandatory requirement increases the volume of the government *sukuk* required to be invested in government *sukuk* by the regulation.

(l) There are differences between GCC and Malaysia in term of their desire to invest in long-term government *sukuk*. Due to the higher cost for acquiring government *sukuk* in Malaysia, the Malaysian *takaful operating companies* desire to reduce level of long-term government *sukuk* in their general and family funds investment portfolio to the level close to the mandatory required limits by BNM. Also, they desire to keep the level of long-term government *sukuk* in their shareholder fund investment portfolio at nil. Unlike Malaysia, the *takaful operating companies* desire to increase the level of long-term government *sukuk* in their shareholders and general fund investment portfolio. The difference between GCC and Malaysia led the difference between actual and desired portfolio to be not significant at 90% confidence level.

(m) The corporate *sukuk* is an attractive asset class for Malaysian *takaful operating companies*. By 2005, 61.8% of Family *takaful* funds *sukuk* portfolio and 41% of general fund *sukuk* portfolio were invested in corporate *sukuk*. Unlike Malaysia, the GCC had almost invested nil in this asset class in all studied funds mainly due to the absence of active primary and secondary markets for *sukuk*.

(n) There are similarities between *takaful operating companies* in both the GCC and Malaysia toward investing in long-term corporate *sukuk*. This was led by the desire to increase this asset class on all companies' level to be significant at 90% confidence level. Malaysian *takaful operating companies* had invested substantially in corporate *sukuk*, but they still require more corporate *sukuk*. Although the GCC companies had negligible *sukuk* in their shareholders fund

investment portfolio and zero position in their general fund investment portfolio, a desire was observed to increase the corporate *sukuk* in their shareholders and general fund investment portfolio. This desire was confirmed by descriptive statistics. However, on the inferential level it was not confirmed due to the desire of two *takaful operating companies* in GCC to invest in other asset classes. One of these two companies desired to concentrate aggressively in equities and real estate, while the other company desired to be more conservative and to invest only in long-term government *sukuk*.

In general, for the actual portfolio, there are similarities between *takaful operating companies* in both regions in their short-term investment portfolio whereby the companies had utilized investment accounts to manage their liquidity. However, differences were observed in long-term investment portfolio. The Malaysian *takaful operating companies* invested mainly in *sukuk* while the GCC *takaful operating companies* had invested in equities. This difference was due to the absence of active primary and secondary markets for *sukuk* in the GCC and basic regulations existed in the GCC market.

On other hand, similarities were observed in the desired portfolio. The *takaful operating companies* in both regions are struggling with investment accounts as a tool to manage their liquidity and want to reduce this asset class in their short-term investment portfolio. Also, a similar desire was noted towards increasing the level of long-term corporate *sukuk* in their investment portfolio. A difference only existed in long-term government *sukuk* due to the acquisition cost issue for government *sukuk* in the Malaysian market.

It can be stated that once the *sukuk* market in the GCC being improved and the regulations that govern insurance sector being developed, and then there will be more convergence between *takaful operating companies* in their investment behaviour which the desire portfolio has already proved.

8.3 Recommendations of the Study

The findings of this study have considerable impact on different stakeholders in the takaful industry, which are: regulatory authorities, *takaful* operating companies, and Islamic banks/windows. This section highlights some recommendations that have emerged from this study.

8.3.1 Regulatory authorities

On the regulatory authorities level the following recommendations can be derived from the study.

The regulatory authorities in the GCC should introduce new regulations for their insurance industry. These new regulations should be benchmarked to the international regulation standards which are developed by the International Association of Insurance Supervisors (IAIS). The existing laws in the GCC for the insurance sector has stated basic limits to control investment for insurance companies which are not enough to control the aggressive behaviour of some companies. The new regulatory regime should introduce solvency margin requirements and enhance the corporate governance standards within the industry. In fact, Bahrain and Saudi Arabia have introduced new regulations in 2005 to the market whose effect cannot be seen in the results of this study. The implementations of these regulations were made after the period of this study.

Taking into consideration the unique characteristics of the *takaful* industry, the regulator should take into consideration the area that needs to be modified for the *takaful* industry. These areas include solvency margin requirements and corporate governance.[49] One of the issues that need to be addressed is whether the shareholders fund should be subjected to the solvency margin requirements as the operator does not bear underwriting risks. This study has introduced a ground for this argument as many takaful operating companies believe that the shareholders fund should be regulated but with lighter

[49] IAIS and IFSB, "Issues in Regulation and Supervision of Takaful (Islamic Insurance), August 2006, http://www.ifsb.org/index.php?ch=4&pg=140

regulations compared to the *takaful* funds. Therefore, the regulator can establish two solvency margins, one for the *takaful* funds and other for the shareholders fund.

The regulators and particularly the GCC's regulators should play an active role to develop the primary and secondary market for *sukuk*. This is a crucial step towards offering a healthy investment environment for *takaful operating companies*. The role includes encouraging Islamic banks to activate their treasuries department to trade in *sukuk* and to conduct awareness campaigns to encourage more corporations to use *sukuk* as a medium of financing. Moreover, the regulator should urgently structure an Islamic repurchase agreement (REPO) contract to enhance the liquidity of government *sukuk*. This would be the first step towards developing the secondary market for *sukuk*. Also, it will give *takaful operating companies* more confidence to invest in *sukuk* as they can liquidate *sukuk* once there are any liabilities arising in *takaful* funds.

The BNM should encourage the government of Malaysia to keep certain portions of their *sukuk* to be issued solely for Islamic financial institutions. The existence of mandatory investment in government securities without allocating a certain portion for *takaful operating companies* and the fact that conventional insurance companies are much bigger in size, have been putting *takaful operating companies* in a real disadvantaged position and stops them from investing in government *sukuk* apart from the mandatory required limits. This was clearly seen in the behaviour of Malaysian *takaful operating companies* to not invest any amount in government securities in the shareholders fund. Therefore, it is suggested that the Malaysian government should allocate a certain percentage of each government *sukuk* issue to be made available for bidding by Islamic financial institutions only.

The GCC regulator should also encourage the government to issue more *sukuk* with longer maturities. This is seen as an important step towards developing the family *takaful*.

8.3.2 *Takaful operating companies*

As this research focused on *takaful operating companies*, this section provides recommendations that may be useful for these companies:

The majority of *takaful operating companies* in the GCC do not yet have an investment department in their companies. The investment decision is usually taken by the Chief Executive Officer and financial control. This is not a good practice and might be one of the reasons for the aggressive behaviour in certain companies. Therefore, it is recommended that the *takaful operating companies* should either establish an investment department or outsource their investment portfolio to an external fund manager.

The *takaful operating companies* in the GCC should immediately stop their aggressive investment position of their general fund investment portfolio in equities and particularly unquoted equities. The continuation of this behaviour might expose their company to market and credit risks which they may not be able to control in the future.

Although the stock markets and real estate sector in the GCC have been registering substantial growth, providing rewarding returns and continuing to attract many GCC and international investors, the *takaful operating companies* must be careful with these two asset classes as liquidity is a matter of the high concern.

The Malaysian *takaful operating companies* should open a direct dialogue with BNM through the Takaful Association regarding the issue of government *sukuk*. The *takaful operating companies* should explain their disadvantaged position regarding the cost of acquiring government *sukuk*.

The *takaful operating companies* in both the GCC and Malaysia should start to work closely with Islamic banks to develop alternative tools to manage their liquidity. The diminishing interest rates of the US dollar is expected to continue in the near future which makes finding other alternatives elevated as matters that need to be considered immediately.

Although general *takaful* has been growing in the GCC, the family *takaful* segment and practically most saving products have higher potential in the GCC markets. It is recommended that the *takaful operating companies* should play an active role to create awareness in the market for those products and introduce frequently innovative products to the market. In fact, education is becoming a greater priority for GCC people and the cost of education is also increasing. On the other hand, the system of joint families in on the decline. These two reasons and others are fuelling the demand for family *takaful* products and making financial security for the family a matter of high concern for the people.

8.3.3 Islamic banks/windows

This section provides recommendations, based on the findings of this study, for Islamic banks, Islamic windows and Islamic assets management companies who wish to serve the *takaful* industry. Given the rapid growth of this industry and the number of *takaful* and *retakaful operating companies* currently emerged in the market with large capital, the potential for this niche is so high. As this study is aims to add value to the development of *takaful* industry, the following ideas are recommended:

The corporate *sukuk* is the most demanded asset class by *takaful operating companies* either in the GCC or in Malaysia. The Islamic banks should play an active role to encourage corporate to issue *sukuk* and using this instrument as a tool for their financing needs. While the level of awareness in Malaysia is so high, the Islamic banks/windows in the GCC needs to put more effort to achieve the current level of issuance in Malaysia and to bring to the market more issuance of *sukuk*. Moreover, it is suggested that the *sukuk* convertible to equities would be an attractive instrument for *takaful operating companies*. This is because this instrument exposes *takaful operating companies* to generate fixed income with a potential of capital gain in the future. Also, the Islamic banks/windows should be active in trading in *sukuk* and in playing the role of the market maker. Although majority of Islamic banks are with small to medium capital which makes the need of playing the market maker role is so difficult to them, this will put the responsibility on

international banks with Islamic windows and large Islamic banks to take the lead in playing such important role.

The *takaful operating companies* with the diminishing profit rate on investment accounts due to pegging of their local currency to US dollar are looking forward to have another asset class with higher return to manage their liquidity. This was clearly seen in the statistically significant desire to reduce the one year or shorter instruments in their shareholders and general funds which was dominated by investment accounts. Therefore, the Islamic banks/windows should develop an alternative to this asset class. One of the ideas to be suggested is to establish a *sukuk* fund with a REPO facility.

8.4 Research Limitations

The essential limitation for this study lies in the sample size that has been chosen. Although the sample size covered almost the majority of the *takaful operating companies* operating in the targeted market, conclusions drawn from this sample may be restricted. This is due to several factors. Firstly, as the sample is so small which is less than 30 companies, the parametric statistical tests cannot be utilized in this study. For example, to apply time series analysis, the young history of the *takaful operating companies* does not help us to do that. The number of *takaful operating companies* in the targeted countries before 2002 is very limited and availability of the data will be also an issue for the companies. Secondly, even for use of the nonparametric statistical tests, the small number of *takaful operating companies* in Malaysia which are only three companies limited the author to perform a comparison between the GCC and Malaysia. This can be clearly seen when we tried to address the objective 2 of to study difference between level of actual and desired investment portfolio between GCC and Malaysia, as we cannot adopt the Wilcoxon Signed-Rank test for Malaysian companies.

Also, the absence of solid *takaful* literature was one of the limitations of this study.

Finally, the author faced a number of difficulties during data collection process. This includes the cost of conducting interviews with these companies as it needed to travel to

different regions in the Gulf and other countries. Moreover, the availability of the top management in *takaful operating companies* and their time constrains was also one of obstacles we faced.

8.5 Recommendations for Future Research

This study is an exploratory comparative study aiming to initiate a framework for studying investment portfolio of *takaful* operating companies. Although the study highlighted many issues concerning investment of *takaful operating companies*, it also raised more areas for future studies.

The first area recommended to be studied derived from the major limitation of this study, which is the small sample size. In fact, from 2006 until today, rapid developments have been observed in the *takaful* industry. There are many *takaful* and *retakaful operating companies* that have been established in both regions. Also, several international players have entered the *takaful* market by establishing either subsidiaries or *takaful* windows such as Hannover Re, American Insurance Group, Swiss Re, Munich Re and Allianz SE. Moreover, Saudi Arabian Monetary Agency (SAMA) - regulator of insurance sector in Saudi Arabia - has licensed many *takaful operating companies* to operate in Saudi market which is the biggest economy in the Middle East. Furthermore, new regulations have emerged in these regions particularly in Bahrain and Saudi Arabia. Therefore, it will be a useful exercise to conduct this study again with a larger sample size or to consider the total population that includes all the new companies in order to explore their investment behaviour. It would also be interesting to see how international players behave and manage their shareholders and *takaful* funds investment portfolio in the absence of an active *sukuk* market. Finally, the effect on the new regulations earlier benchmarked according to international regulations can be studied in the future.

Although this study highlighted some gaps in asset management of *takaful* industry, the details about these gaps need to be studied. The future research should take further these gaps and identify characteristics of the demanded asset classes by *takaful operating*

companies. For example, this study highlight the demand on long term corporate *sukuk* but the characteristics of these *sukuk* required was not under the scope of the study. The future research should be able to identify the prefer maturity, structure, liquidity option and all the details features of the required *sukuk*.

It is also suggested that a particular study should be conducted particularly for *retakaful operating companies* to explore their investment portfolio and product required by these companies. The study recommended to be conducted when more *retakaful operating companies* emerge in the market.

Finally, further research is required to provide insight into the factors affecting investment behaviour of *takaful operating companies*. This study has shown there are obvious factors affecting investment composition of *takaful* operating companies such as regulations and *shari'ah*. However, these two factors in addition to other factors such as related parties influence, existence of investment department and other perceive factors need to be studies in details to determine their effects.

8.6 Concluding Remarks

This research aimed to explore investment portfolio composition of *takaful* operating companies in both the GCC and Malaysia. Moreover, it was aimed at identifying the gaps in asset classes for *takaful* industry. The empirical findings and their interpretations in chapter five, chapter six and chapter seven highlighted a divergence in actual investment portfolio between the takaful operating companies in the GCC and Malaysia. However, a convergence was observed in the desired asset classes between companies in both groups. This indicates that in the future a convergence is expected in investment behaviour of *takaful operating companies* in both regions once the primary and secondary markets for *sukuk* develops in the GCC and international regulatory framework is practiced.

In concluding, thus, this study responded to the research questions by testing the identified hypothesis, and hence fulfilled its aim and objectives. By conducting the research according within an effective research methodological manner, this study also fulfilled its aim of conducting an independent research.

Bibliography

Abdu, Isa (1987). *Al-Tamin Byn Al-hil Wa-al-Tahreem (Insurance between Permissibility and Impermissibility)*. Al-Qahirah, Dar Al-I'tisam, Egypt.

Abid, Noor (2008). *Islamic Finance: Journey, Growth Trends and Future Direction*, International Islamic Financial Market (Board Meeting), Manama, Bahrain, Retrieved June 11, 2006, from http://www.iifm.net

Accounting and Auditing Organization for Islamic Financial Institutions (2003). *Accounting, Auditing and Governance Standards for Islamic Financial Institutions 2003-4*. Manama, Bahrain.

Al-Dariar, S. (2004). *Al-etbarat Alshariah le Momarasat Al-tameen (Shari'ah principals to be considered in conducting insurance business)*, Khartoum, Sudan.

Al-Darir, S. (1997). *Al-Garar in Contracts and its Effects on Contemporary Transactions*. IDB Eminent Scholars Lecture Series 16. Jeddah: Islamic Development Bank, IRT, Saudi Arabia.

Al-Darir, S. (nd). *Wajhat Al-Nadar Al-Shariyah Hawla Al-Tamin (The Shari'ah poistion from Insurance). Insurance Awareness Series 3*, Shikan Insurance and Reinsurance Company, Khartoum, Sudan.

Ali, R. (2008). *Islamic Finance: A Practical Guide*, London, Globe Business Publishing Ltd, United Kingdom.

Ali, Y. (1403H). *The Holy Qur'an: Text, Translation and commentary*, Beirut, Dar Al-Qur'an al-Kareem, Lebanon.

Al-Islami, M.A. (1998). *Qararat wa-Tawsiyat Majma Al-Figh Al-Islami (Islamic Fiqh Academy Resolutions)*. Dimishq, Dar Al-Qalim.

Aliyyan, S. (1978). *Insurance in Shari'ah and Law*. First Edition, Riyadh, Saudi Arabia.

Al-Khafif, A. (1966). *Al-Tamin (Insurance)*. Majallat Al-Azher, Vol. 37, Pp:79-87.

Al-Khafif, A. (1966). *Al-Tamin (Insurance)*. Majallat Al-Azher, Vol. 38, Pp: 110-115.

Al-Mahmood, A.M. (1994). *Al-tamin Al-ijtmai fi Dawa Al-shariah Al-islamiyah (Social Insurance in Light of Shari'ah Law)*. Tunis, Al-koliyah Al-Zaytoniyah Li-Al-shariah Wa-A'asul Al-figh: 471.

Al-Mahmud, A. I. Z. (1986). *Ahkam_ugud al-ta'min wa-makanuha min shari' at al-adin (The Position of Shari'ah Law from Insurance Contract)*. Bayrut, Al-Maktab Al-Islami.

Al-Misri, R.Y. (2001). *Al-katar Wa-al-tamin (Risks and Insurance)*. Dimishq, Dar Al-qalam.

Al-Najar, A.M. (1994). *Ugad Al-Tamin Wa-mada Mashroeytah Fin Al-Fiqh Al-Islami (Insurance Contract and Whether its Permissible under Islamic Law)*. Al-Qahirah, Dar Al-Nadah Al-Arabiyah, Egypt.

Al-Qaradawi, Y. (2003). *The Lawful and the Prohibited in Islam*. American Trust Publications, USA.

Al-Qushay'ri, L.(1998). *Sah'ih Muslim*, Beriut, Dar Al-Kptpb Al-Ilmiyah, Labanon.

Al-Salih, M.B.A.B.S. (2004). *Al-Tamin Bayan Al-Hazr Wa-al-ibahah (Insurance between prohibition and acceptance)*. Al-Riyad, Maktabat Al-Mslik Faha Al-wtaniyah, Saudi Arabia.

Al-Sanosui, A.T. (1953). *Uqad Al-Tamin Fi Al-Tashria'a Al-Islami (Insurance Contract under Shari'ah Law)*, Majallat Al-Azher, Vol.:25, No.1202, Pp: 232-236 and 303-307.

Al-Sayed, M.Z. (1996). *Nazariyat Al-Tamin fi Al-Figh Al-Islami (Insurance Theory under Islamic Law)*. Misr, Dar Al-Manar.

Al-Zarqa, M.A. (1962). *Aqd Al-Tamin (Al-Sawkarah) Wa-Mawqif Al-Sharia Al-Islamiyah minh (Insurance Contract and the Position of Shari'ah Law from this Contract)*, Dimashiq, Matba'at Jami'at Dimshq, Syria.

Arab Insurance Group (ARIG) (2005). *Arab Reinsurance Company Directory*. Manama, Kingdom of Bahrain.

Archer, S. and Abdul Karim, R. (2007). *Islamic Finance: The Regulatory Challenge*, John Wiley & Sons (Asia) Pre Ltd, Singapore.

Ata-allah, B.M. (1984). *Al-Tamin min Al-wijhah Al-qanuniyah Wa-al-shariah*. Iskandariyah, Mu'assasat Al-Thaqafah Al-jami'iyah, Egypt.

Attar, A.T. (1983). *Hukm Al-Tamin Fi Al-Shariah Al-Islamyah (Insurance Contract under Shari'ah Law)*. Al-Qahirah, Maktabat Al-Nahdah Al-misriyah, Egypt.

Ayub, M. (2007). *Understanding Islamic Finance*, London, John Wiley & Sons Ltd.

Baker, D. and Ali, E. (2008). *Essential Readings in Islamic Finance*, Kuala Lumpur, CERT Publications Sdn. Bhd., Malaysia.

Baltiji, M. (1987). *Uq'aad Al-Tamin min Wjhat Al-Fiqh Al-Islamic (Insurance Contract from Shari'ah Law Point view)*. Minera. Maktabat Al-Shabab.

Bank Negara Malaysia (BNM) (2005). *BNM Takaful Annual Report*. Kuala Lumpur, Malaysia.

Billah, M. (nd). *Development and Applications of Islamic Insurance (Takaful).* Retrieved April 26, 2005, from http://www.icmif.org

Billah, M. (nd). *Doctrines Justifying Islamic Insurance/Takaful.* Retrieved April 26, 2005, from http://www.icmif.org.

Billah, M. *Dispute among the 'Ulama' on the Validity of Life Insurance.* Retrieved April 26, 2005, from http://www.icmif.org

Bryman, A. (2004). *Social Research Methods.* 2nd Edition, Oxford, Oxford University Press.

Central Bank of Bahrain (2005). *Rulebook No.3.* Manama, Kingdom of Bahrain.

Dongula, M. (2002). *Role of Islamic Religious Beliefs in Insurance Development, and the Case of the UAE.* Southern California University for Professional Studies, Santa Ana, California, USA.

El-Gamal, M.A. (2000). *An Introduction to Modern Islamic Economics and Finance.* Fourth Harvard University Forum on Islamic Finance, Cambridge, Massachusetts, Center for Middle Eastern Studies, Harvard University, USA.

El-Hawary, D.; Grais, W. and Iqbal, Z. (2004). *Regulating Islamic Financial Institutions: The Nature of the Regulated,* World Bank Policy Research Paper 3227, Washintogton, USA.

Ernest & Young, (2008). *World Takaful Report.* Retrieved June 11, 2008, from http://www.ey.com

Faisal, H. and Gribot-Carroz, D. (2008). *2007 Review and 2008 Outlook: Islamic Finance: Sukuk Take Center Stage, Other Shari'ah-compliant Products Gain Popularity as Demand Increase.* Moodys Investors Services.

Fisher, O. (2005). *Operating and financial Performance Characteristics of Takaful Operators in GCC (Unpublished PhD Thesis).* International Islamic University of Malaysia and Camden University of Delaware, USA. *Dissertation.*

Fisher, O. (2006). *Conventional Insurance and Takaful Investment Strategies and Returns: A Fresh Look.* Manama, Kingdom of Bahrain

Fisher, O. and Taylor, D. (2000). *Prospect for Evolution of Takaful in the 21st Century.* Retrieved 22 April, 2005, from http://www.baj.com.sa

Fupuy, C., Katsipis, V. and Kwan, B. (2007). *Takaful (Shari'ah-Compliant) Insurance Companies. Best's Rating Methodology,* A.M.BEST Company Inc.

Government of Malaysia (1985). *Law of Malaysia, Act 312: Takaful Act 1984.* Retrieved 2 June, 2008, from http://www.bnm.gov.my/index.php?ch=14&pg=17&ac=18&full=1

Grewal, B. (2008). *Islamic Finance Industry: Trends, Opportunities and Future Direction.* Islamic Finance Industry and IIFM Briefing Session (Series II), Bahrain, 8 May 2008. Retrieved June 11, 2008, from http://www.iifm.net

Haron, A. (2005). *Risk-based Capital- A General Overview in the Application for Takaful.* International Convention on Takaful and Retakaful, 24-25 November 2005, Kuala Lumpur, Malaysia

Hassan, H.H. (1979). *Hukm Al-Shariah Al-Islamiyah fi Uqud Al-Tamin (The shari'ah Law opioion regards Insurance).* Al-Qahirah, Dar Al-I'tisam. Egypt

IAIS and IFSB (2006). *Issues in Regulation and Supervision of Takaful (Islamic Insurance).* Retrieved 11 June, 2008, from http://www.ifsb.org/index.php?ch=4&pg=140

Ibn Abidin, M. (1966). *Hashiat Raad Al-Muhtar 'ala Al-Durr Al-Mukhtar.* Second Edition, Al-Bolagy Print, Cario, Egypt

Iqbal, M. and Ahmad, A. (2005). *Islamic Finance and Economic Development*, New York, Palgrave Macmillan, USA.

Iqbal, Z.and Mirakhor, A. (2007). An *Introduction to Islamic Finance: Theory and Practice*, John Wiley & Sons (Asia) Pte Ltd, Singapore.

Ismail, A. (nd). *Shari'ah Framework of Takaful.* Retrieved 26 April, 2005, from http://www.icmif.org

Jaffer, S. (2008). *Islamic Insurance: Trends, Opportunities and the Future of Takaful.* Euromoney Institutional Investor Plc, London, UK

Jaffer, S.(2004). *Islamic Asset Management: Forming the Future for Shari'ah-Compliant Investment Strategies.* London, Euromoney books, UK.

Janahi, A. (1993). *Life Insurance and Islamic Takaful.* The American Journal of Islamic Finance, Vol: 6, No.2, pages pp.:3-5, CA, USA.

Jassim, A. (1982). *A Study of Life Insurance Companies Investment Policies and the Factors Influencing their Investment Decisions.* University of Georgia: 188.

Kaleem, H. (2008). *Takaful Based on Waqf: A Pakistani Experience.* International Conference on Cooperative Insurance in the Framework of Waqf 4-6 March 2008, International Islamic University Malaysia.

Kamali, M.H. (2000). *Islamic Commercial Law*. Cambridge, The Islamic Texts Society.

Kassim, Zainal (2005). *The Importance of Effective Pricing in General Takaful*. International Convention on Takaful and Retakaful, 24-25 November 2005, Kuala Lumpur, Malaysia

Khorshid, A. (2004). *Islamic Insurance: A Modern Approach to Islamic Banking*. London, RouttledgeCurzon, United Kingdom.

Mawalawi, F. (1996). *Nizam Al-Taim Wa-Mawqaf Al-Shariah Minh (Insurance System and shari'ah Position from this Contarct)*. Beurit, Mu'assas'at Al-Rayan, Labanon.

Maysami, R. and Kown, W.(nd). *An Analysis of Islamic Takaful Insurance- A Cooperative Insurance Mechanism.*

Melhim, A. (2002). *Al-Tamin Al-Islami (Islamic Insurance)*. Amman, Dar Al-A'alam, Jordan.

Melhim, Ahmed. (2004). *Ieadat Al-Tamin (Reinsurance)*. First Edition, Amman, Dar Al-Nafaes, Jordan

Mervyn, K. (2005). *Wealth Creation through Takaful (Islamic Insurance)*. International Conference on Islamic Wealth Management. Organized by Durham Summer School of Government and International Affairs, University of Durham and IRTI-Islamic Development Bank, UK

Moghaizel, F. (1991). *Insurance in Light of Islamic Legal Principles*. Department of Law, University of London: 364.

Mudkor, M.S. (1975). *Uq'ad Al-Tamin Wa-ma Hikmoha fi Al-Fiqh Al-Islami (Insurance contract and what is the opinion of Shari'ah from this contract)*. Al-Arabi Vol.:195, Pp: 20-24.

Muslehuddin, M. (1969). *Insurance and Islamic Law*. Islamic Publication Limited, Lahore, Pakistan

Patel, S. (2005). *Takaful and Poverty Alleviation*. Retrieved 26 April, 2005, from http://www.icmif.org.

Rahman, A. (1979). *Banking and Insurance*. Economic Doctrines of Islam, Vol.4, London, The Muslim Schools Trust, United Kingdom.

Sadiq, C. (1995). *Islamic Insurance (Takaful): Concept and Practice*, in *Encyclopedia of Islamic Banking and Insurance*, Institute of Islamic Banking and Insurance, London, UK, Pp.: 197-208

Siddiqi, M.N. (1985). *Insurance in an Islamic Economy*. Leicester, The Islamic Foundation, UK.

Swiss Reinsurance Company, Sigma (1997). *Are Mutuals an Endangered Species?*. No. 4/1999, Zurich, Switzerland.

Swiss Reinsurance Company, Sigma (2000). *Asset-Liability Management for Insurers.* No. 6/2000, Zurich, Switzerland.

Syarikat Takaful Malaysia (2002). *Profit Sharing for General Takaful.* Retrieved 26 April, 2005, from http://www.takaful-malaysia.com

Syarikat Takaful Malaysia (2002). *Takaful Provide Profit Sharing*. Retrieved 22 January, 2005, from http://www.takaful-malaysia.com

Syarikat Takaful Malaysia (2002). *Takaful: Basis of Islamic Insurance.* Retrieved 22 January, 2005, from http://www.takaful-malaysia.com

Takaful Re. (2006). *Takaful Annual Report.* Retrieved 15 June, 2006, from http://www.takaful-re.ae/en/TRL_annual_report_06.pdf

Taylor, D.awood (2005). *Bank Assurance in Takaful.* The 2nd Middle East Insurance Forum, 8 and 9 march 2005, Manama, Kingdom of Bahrain

Taymiyah, I. (1994). *Al-Qawa'ad Al-Nnuraniyah Al-Fiqhiyah.* Bayrut, Dar Al-kotob Al-Elmiyah.

Vogel, F. and Hayes, S. (1998). *Islamic Law and Finance Religion, Risk and Return.* Boston, Klumer Law International, USA.

Warde, E. (2000). *Islamic Finance in the Global Economy.* Edinburgh, Edinburgh University Press, United Kingdom.

Wilson, R. (1984). *Islamic Business: Theory and Practice.* London, The Economist Intelligence Unit: 75, United Kingdom.

Appendix A

Interview Questions

Part I: Structured Interview

Question (1):

- Taking into consideration the *takaful* structure, do you think that the shareholders fund should be regulated? Why?

Question (2):

- What are the reasons behind the behaviour that many *takaful operating companies* hold less percentage of *sukuk* in their short-term investment portfolio? For the GCC, why do they not hold *sukuk* in their portfolio on a long-term basis?

Part II: Unstructured Interview

This part consists of open discussion and includes questions relating to certain trends in investment behavior of a *takaful operating company*. The numbers of the questions are different from company to company depending on the analysis of the data.

(I) Company General Information

Company Name:	

Head Office Country:	

Number of Branches and subsidiaries:

-In home country	
-Outside home country	
- Branches	
- Subsidries	

Number of employees:	

Capital:

Capital of the Company:	
Currency	

The *takaful* model adopted by the company:

Models	**Family *Takaful***	**General *Takaful***
(a) *Wakalah* model for underwriting activities and mudarabah model for investment activities		
(b) *Wakalah* model for underwriting and investment activities		
(c) item (a) plus sharing in underwriting surplus		
(d) item (b) plus sharing in underwriting surplus		
(e) *Mudarabah* model		
(f) *Waqf* Model		
(j) Co-operative		
(h) Others (please specify)		

Contributions	**2002**	**2003**	**2004**	**2005**
Total Premiums Written				
Family *Takaful*				
General *Takaful*				

(II) Company's Protfolio Composition

(8)

Assets under Investment	Shareholders				Participants							
					General *Takaful*				Family *Takaful*			
	2002	2003	2004	2005	2002	2003	2004	2005	2002	2003	2004	2005
Short Term (one year or less)												
Cash												
Investment Accounts (Deposits)												
Sukuk												
Government												
Corporate												
Conventional products												
Other (please provide details)												
Long Term (more than 1 year)												
Sukuk												
Government												
Corporate												
Equities												
Quoted												
Unquoted												
Real estate investments												
Investment in subsidiaries												
Managed Funds/Unit trusts												
Conventinal products												
Other (please provide details)												
Total Ivestments												
Return on Investment (%)												

(III) Company's Desire Portfolio Composition

(9) What investment distribution could your company like to have at the present time?

Investment Catogry	Desired Investment		
	Shareholders Funds	General Funds	Family Fund
Long term government *sukuk*			
Long term corpoarte *sukuk*			
Quoted Equities			
Unquoted Equities			
Mutual Fund/Unit trust			
Real Estate Investments			
One year or less Instruments			
Conventional Products			
Others (please specify)			
Total (the sum should be equal to 100%)	0%	0%	0%

Appendix B

Table 1: Volume and Composition of Investment Portfolio for the Surveyed *Takaful Operating Companies* for all the Funds

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Cash	16,672,247	0.74%	14,782,855	0.94%	16,772,866	1.29%	16,497,158	1.69%
Investment Accounts (Deposits)	742,977,838	32.77%	577,903,348	36.57%	520,723,783	39.97%	424,969,538	43.52%
Sukuk	697,626,984	30.77%	567,120,952	35.89%	478,113,263	36.70%	343,915,823	35.22%
Equities	444,959,006	19.63%	263,957,963	16.70%	172,472,755	13.24%	111,096,407	11.38%
Real estate investments	102,155,538	4.51%	65,064,822	4.12%	56,379,173	4.33%	53,868,214	5.52%
Investment in subsidiaries	173,521,015	7.65%	17,120,177	1.08%	5,382,671	0.41%	5,382,671	0.55%
Managed Funds/Unit trusts	77,386,238	3.41%	63,141,042	4.00%	40,889,866	3.14%	8,054,078	0.82%
Conventinal products	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Other	11,913,235	0.53%	11,242,487	0.71%	12,050,049	0.92%	12,786,893	1.31%
Total	**2,267,212,102**	100.00%	**1,580,333,647**	100.00%	**1,302,784,426**	100.00%	**976,570,782**	100.00%
Return on Investment	209,705,640	9.25%	90,477,031	5.73%	57,013,297	4.38%	44,043,513	4.51%

Table 2: Volume and Composition of Investment Portfolio for the Surveyed *Takaful Operating Companies* for all the Funds in US$ Divided into GCC and Malaysia

Assets Class	2005				2004				2003				2002			
	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%
Cash	10,724,663	1.30%	5,947,583	0.41%	8,143,393	2.67%	6,639,462	0.52%	3,715,066	1.47%	13,057,800	1.24%	2,819,369	3.04%	13,677,789	1.55%
Investment Accounts (Deposits)	304,776,204	36.82%	438,201,634	30.44%	110,450,375	36.25%	467,452,974	36.65%	136,812,617	54.14%	383,911,166	36.56%	39,116,171	42.13%	385,853,367	43.66%
Sukuk	3,500,000	0.42%	694,126,984	48.22%	2,500,000	0.82%	564,620,952	44.26%	0	0.00%	478,113,263	45.53%	0	0.00%	343,915,823	38.92%
Equities	252,963,677	30.56%	191,995,330	13.34%	96,187,385	31.57%	167,770,578	13.15%	57,216,861	22.64%	115,255,894	10.98%	30,209,048	32.54%	80,887,359	9.15%
Real estate investments	28,065,489	3.39%	74,090,050	5.15%	26,684,213	8.76%	38,380,609	3.01%	18,238,486	7.22%	38,140,687	3.63%	16,800,601	18.10%	37,067,613	4.19%
Investment in subsidiaries	157,959,145	19.08%	15,561,870	1.08%	1,300,000	0.43%	15,820,177	1.24%	0	0.00%	5,382,671	0.51%	0	0.00%	5,382,671	0.61%
Managed Funds/Unit trusts	69,711,482	8.42%	7,674,756	0.53%	59,461,042	19.51%	3,680,000	0.29%	36,737,498	14.54%	4,152,368	0.40%	3,891,446	4.19%	4,162,632	0.47%
Conventinal products	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Other	0	0.00%	11,913,235	0.83%	0	0.00%	11,242,487	0.88%	0	0.00%	12,050,049	1.15%	0	0.00%	12,786,893	1.45%
Total	**827,700,660**	100.00%	**1,439,511,442**	100.00%	**304,726,408**	100.00%	**1,275,607,238**	100.00%	**252,720,527**	100.00%	**1,050,063,899**	100.00%	**92,836,635**	100.00%	**883,734,147**	100.00%
Return on Investment	147,160,776	17.78%	62,544,864	4.34%	35,432,752	11.63%	55,044,279	4.32%	11,346,450	4.49%	45,666,846	4.35%	5,479,593	5.90%	38,563,921	4.36%

Table 3: Volume and Composition of Investment Portfolio for the Surveyed *Takaful Operating Companies* for the Shareholders Funds in US$

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Cash	7,361,512	1.0%	4,031,181	1.3%	611,358	0.2%	1,759,375	1.4%
Investment Accounts (Deposits)	286,694,321	37.4%	114,728,107	38.0%	131,206,582	52.4%	46,335,982	36.9%
Sukuk	17,018,084	2.2%	12,417,158	4.1%	4,637,632	1.9%	4,653,421	3.7%
Equities	190,361,143	24.8%	75,911,687	25.2%	48,190,365	19.2%	36,614,836	29.2%
Real estate investments	30,345,315	4.0%	25,289,701	8.4%	22,231,367	8.9%	24,665,049	19.7%
Investment in subsidiaries	165,089,065	21.6%	7,101,737	2.4%	886,221	0.4%	886,221	0.7%
Mutual funds/Unit trusts	64,284,706	8.4%	57,371,552	19.0%	37,014,051	14.8%	4,287,421	3.4%
Conventional products	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	4,900,559	0.6%	4,795,065	1.6%	5,756,021	2.3%	6,294,607	5.0%
Total	**766,054,705**	100.0%	**301,646,188**	100.0%	**250,533,597**	100.0%	**125,496,912**	100.0%
Return on Investment	101,697,131	13.3%	27,311,937	9.1%	9,315,645	3.7%	4,974,320	4.0%

Table 4: Volume and Composition of Investment Portfolio for the Surveyed *Takaful Operating Companies* for the Shareholders Funds in US$ Divided into GCC and Malaysia

Assets Class	2005				2004				2003				2002			
	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%
Cash	6,674,248	1.0%	687,264	0.6%	2,119,156	1.0%	1,912,025	2.1%	76,215	0.0%	535,143	0.9%	2,015,673	2.9%	-256,298	-0.5%
Investment Accounts (Deposits)	234,913,589	35.7%	51,780,732	47.6%	70,964,450	33.9%	43,763,657	47.6%	105,996,266	55.7%	25,210,316	41.8%	25,829,431	37.0%	20,506,552	36.8%
Sukuk	2,500,000	0.4%	14,518,084	13.4%	2,500,000	1.2%	9,917,158	10.8%	0	0.0%	4,637,632	7.7%	0	0.0%	4,653,421	8.4%
Equities	176,754,253	26.9%	13,606,890	12.5%	62,720,112	29.9%	13,191,576	14.3%	37,616,242	19.8%	10,574,123	17.5%	25,749,038	36.9%	10,865,798	19.5%
Real estate investments	15,210,899	2.3%	15,134,417	13.9%	13,591,445	6.5%	11,698,257	12.7%	10,447,916	5.5%	11,783,452	19.5%	12,844,557	18.4%	11,820,491	21.2%
Investment in subsidiaries	157,959,145	24.0%	7,129,920	6.6%	1,300,000	0.6%	5,801,737	6.3%	0	0.0%	886,221	1.5%	0	0.0%	886,221	1.6%
Mutual funds/Unit trusts	63,353,650	9.6%	931,055	0.9%	56,443,657	26.9%	927,895	1.0%	36,086,156	19.0%	927,895	1.5%	3,359,526	4.8%	927,895	1.7%
Conventional products	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	0	0.0%	4,900,559	4.5%	0	0.0%	4,795,065	5.2%	0	0.0%	5,756,021	9.5%	0	0.0%	6,294,607	11.3%
Total	**657,365,783**	100.0%	**108,688,922**	100.0%	**209,638,819**	100.0%	**92,007,369**	100.0%	**190,222,794**	100.0%	**60,310,803**	100.0%	**69,798,225**	100.0%	**55,698,687**	100.0%
Return on Investment	98,512,617	15.0%	3,184,514	2.9%	24,167,244	11.5%	3,144,692	3.4%	7,205,848	3.8%	2,109,797	3.5%	3,238,581	4.6%	1,735,739	3.1%

Table 5: Composition of Short and Long Term Shareholders Funds Investment Portfolio

Short-Term

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Cash	7,361,512	2.5%	4,031,181	3.3%	611,358	0.5%	1,759,375	3.7%
Investment Accounts (Deposits)	285,816,792	96.2%	113,892,976	94.6%	130,991,872	99.5%	46,121,273	96.3%
Sukuk	3,811,814	1.3%	2,500,000	2.1%	0	0.0%	0	0.0%
Conventional products	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	**296,990,118**	**100.0%**	**120,424,156**	**100.0%**	**131,603,230**	**100.0%**	**47,880,648**	**100.0%**

Long-Term

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Cash	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Investment Accounts (Deposits)	877,528	0.2%	835,132	0.5%	214,709	0.2%	214,709	0.3%
Sukuk	13,206,271	2.8%	9,917,158	5.5%	4,637,632	3.9%	4,653,421	6.0%
Equities	190,361,143	40.6%	75,911,687	41.9%	48,190,365	40.5%	36,614,836	47.2%
Real estate investments	30,345,315	6.5%	25,289,701	14.0%	22,231,367	18.7%	24,665,049	31.8%
Investment in subsidiaries	165,089,065	35.2%	7,101,737	3.9%	886,221	0.7%	886,221	1.1%
Mutual funds/Unit trusts	64,284,706	13.7%	57,371,552	31.7%	37,014,051	31.1%	4,287,421	5.5%
Conventional products	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	4,900,559	1.0%	4,795,065	2.6%	5,756,021	4.8%	6,294,607	8.1%
Total	**469,064,587**	100.0%	**181,222,032**	100.0%	**118,930,366**	100.0%	**77,616,264**	100.0%

Table 6: Composition of Short and Long Term Shareholders Funds Investment Portfolio in US$- GCC Vs. Malaysia

Short-Term

Assets Class	2005				2004				2003				2002			
	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%
Cash	6,674,248	2.7%	687,264	1.3%	2,119,156	2.8%	1,912,025	4.2%	76,215	0.1%	535,143	2.1%	2,015,673	7.2%	-256,298	-1.3%
Investment Accounts (Deposits)	234,251,501	96.2%	51,565,291	96.3%	70,344,028	93.8%	43,548,947	95.8%	105,996,266	99.9%	24,995,607	97.9%	25,829,431	92.8%	20,291,842	101.3%
Sukuk	2,500,000	1.0%	1,311,814	2.4%	2,500,000	3.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Conventional products	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	**243,425,749**	**100.0%**	**53,564,369**	**100.0%**	**74,963,184**	**100.0%**	**45,460,972**	**100.0%**	**106,072,481**	**100.0%**	**25,530,750**	**100.0%**	**27,845,104**	**#DIV/0!**	**20,035,544**	**100.0%**

Long Term

Assets Class	2005				2004				2003				2002			
	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%
Cash	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.00%	0	0.0%	0	0.0%
Investment Accounts (Deposits)	662,088	0.2%	215,441	0.4%	620,422	0.5%	214,709	0.5%	0	0.0%	214,709	0.62%	0	0.0%	214,709	0.6%
Sukuk	0	0.0%	13,206,271	24.0%	0	0.0%	9,917,158	21.3%	0	0.0%	4,637,632	13.33%	0	0.0%	4,653,421	13.0%
Equities	176,754,253	42.7%	13,606,890	24.7%	62,720,112	46.6%	13,191,576	28.3%	37,616,242	44.7%	10,574,123	30.40%	25,749,038	61.4%	10,865,798	30.5%
Real estate investments	15,210,899	3.7%	15,134,417	27.5%	13,591,445	10.1%	11,698,257	25.1%	10,447,916	12.4%	11,783,452	33.88%	12,844,557	30.6%	11,820,491	33.1%
Investment in subsidiaries	157,959,145	38.2%	7,129,920	12.9%	1,300,000	1.0%	5,801,737	12.5%	0	0.0%	886,221	2.55%	0	0.0%	886,221	2.5%
Mutual funds/Unit trusts	63,353,650	15.3%	931,055	1.7%	56,443,657	41.9%	927,895	2.0%	36,086,156	42.9%	927,895	2.67%	3,359,526	8.0%	927,895	2.6%
Conventional products	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.00%	0	0.0%	0	0.0%
Other	0	0.0%	4,900,559	8.9%	0	0.0%	4,795,065	10.3%	0	0.0%	5,756,021	16.55%	0	0.0%	6,294,607	17.7%
Total	**413,940,034**	**100.0%**	**55,124,552**	**100.0%**	**134,675,635**	**100.0%**	**46,546,396**	**100.0%**	**84,150,313**	**100.0%**	**34,780,053**	**100.00%**	**41,953,121**	**100.0%**	**35,663,143**	**100.0%**

Table 7: Composition of Investment Accounts in Short and Long Term Investment Portfolio for Shareholders Funds

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Short-term								
Investment Accounts	285,816,792	99.7%	113,892,976	99.3%	130,991,872	99.8%	46,121,273	99.5%
Long-term								
Investment Accounts	877,528	0.3%	835,132	0.7%	214,709	0.2%	214,709	0.5%
Total	286,694,321	100.0%	114,728,107	100.0%	131,206,582	100.0%	46,335,982	100.0%
% of total Shareholders Fund investment		37.4%		38.0%		52.4%		36.9%

Table 8: Composition of Investment Accounts in Short and Long Term Investment Portfolio for Shareholders Funds in US$ -GCC Vs. Malaysia

Assets Class	2005				2004				2003				2002			
	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%
Short-term																
Investment Accounts	234,251,501	99.7%	51,565,291	99.6%	70,344,028	99.1%	43,548,947	99.5%	105,996,266	100.0%	24,995,607	99.1%	25,829,431	100.0%	20,291,842	99.0%
Long-term																
Investment Accounts	662,088	0.3%	215,441	0.4%	620,422	0.9%	214,709	0.5%	0	0.0%	214,709	0.9%	0	0.0%	214,709	1.0%
Total	234,913,589	**100.0%**	51,780,732	**100.0%**	70,964,450	**100.0%**	43,763,657	**100.0%**	105,996,266	**100.0%**	25,210,316	**100.0%**	25,829,431	**100.0%**	20,506,552	**100.0%**
% of total Shareholders Fund investment		35.7%		47.6%		33.9%		47.6%		55.7%		41.8%		37.0%		36.8%

Table 9: Composition of *Sukuk* in Short and Long Term Investment Portfolio for Shareholders Funds

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Short-term	3,811,814	22.4%	2,500,000	20.1%	0	0.0%	0	0.0%
Government *Sukuk*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Corporate *Sukuk*	3,811,814	22.4%	2,500,000	20.1%	0	0.0%	0	0.0%
Long-term	13,206,271	77.6%	9,917,158	79.9%	4,637,632	100.0%	4,653,421	100.0%
Government *Sukuk*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Corporate *Sukuk*	13,206,271	77.6%	9,917,158	79.9%	4,637,632	100.0%	4,653,421	100.0%
Total	17,018,084	100.0%	12,417,158	100.0%	4,637,632	100.0%	4,653,421	100.0%
% of total Shareholders Fund investment		2.2%		4.1%		1.9%		3.7%

Table 10: Composition of Sukuk in Short and Long Term Investment Portfolio for Shareholders Funds in US$ - GCC Vs. Malaysia

Assets Class	2005				2004				2003				2002			
	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%
Short-term	**2,500,000**	**100.0%**	**1,311,814**	**9.0%**	**2,500,000**	**100.0%**	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**
Government *Sukuk*	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Corporate *Sukuk*	2,500,000	100.0%	1,311,814	9.0%	2,500,000	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Long-term	**0**	**0.0%**	**13,206,271**	**91.0%**	**0**	**0.0%**	**9,917,158**	**100.0%**	**0**	**0.0%**	**4,637,632**	**100.0%**	**0**	**0.0%**	**4,653,421**	**100.0%**
Government *Sukuk*	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Corporate *Sukuk*	0	0.0%	13,206,271	91.0%	0	0.0%	9,917,158	100.0%	0	0.0%	4,637,632	100.0%	0	0.0%	4,653,421	100.0%
Total	**2,500,000**	**100.0%**	**14,518,084**	**100.0%**	**2,500,000**	**100.0%**	**9,917,158**	**100.0%**	**0**	**0.0%**	**4,637,632**	**100.0%**	**0**	**0.0%**	**4,653,421**	**100.0%**
% of total Shareholders Fund investment		**0.4%**		**13.4%**		**1.2%**	**0**	**10.8%**		**0.0%**		**7.7%**		**0.0%**		**8.4%**

Table 11: Composition of Equities in Investment Portfolio for Shareholders Funds

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Quoted	88,482,325	46.5%	49,872,393	65.7%	29,515,976	61.2%	20,656,421	56.4%
Unquoted	101,878,818	53.5%	26,039,295	34.3%	18,674,389	38.8%	15,958,415	43.6%
Total	**190,361,143**	**100.0%**	**75,911,687**	**100.0%**	**48,190,365**	**100.0%**	**36,614,836**	**100.0%**
% of total Shareholders Fund investment		**24.8%**		**25.2%**		**19.2%**		**29.2%**

Table 12: Composition of Equities in Investment Portfolio for Shareholders Funds in US$ -GCC Vs. Malaysia

Assets Class	2005				2004				2003				2002			
	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%
Quoted	75,367,898	42.6%	13,114,426	96.4%	37,071,596	59.1%	12,800,797	97.0%	19,306,315	51.3%	10,209,660	96.6%	10,129,230	39.3%	10,527,191	96.9%
Unquoted	101,386,355	57.4%	492,464	3.6%	25,648,516	40.9%	390,779	3.0%	18,309,926	48.7%	364,463	3.4%	15,619,808	60.7%	338,608	3.1%
Total	**176,754,253**	**100.0%**	**13,606,890**	**100.0%**	**62,720,112**	**100.0%**	**13,191,576**	**100.0%**	**37,616,242**	**100.0%**	**10,574,123**	**100.0%**	**25,749,038**	**100.0%**	**10,865,798**	**100.0%**
% of total Shareholders Fund investment		26.9%		12.5%		29.9%		14.3%		19.8%		17.5%		36.9%		19.5%

Table 13: Composition of Other Asset Classes in Investment Portfolio for Shareholders Funds

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Real estate investment	30,345,315	4.0%	25,289,701	8.4%	22,231,367	8.9%	24,665,049	19.7%
Investment in subsidiaries	165,089,065	21.6%	7,101,737	2.4%	886,221	0.4%	886,221	0.7%
Mutual funds/Unit trusts	64,284,706	8.4%	57,371,552	19.0%	37,014,051	14.8%	4,287,421	3.4%
Total	**766,054,705**	**100.0%**	**301,646,188**	**100.0%**	**250,533,597**	**100.0%**	**125,496,912**	**100.0%**

Table 14: Composition of Other Asset Classes in Investment Portfolio for Shareholders Funds in US$ - GCC Vs. Malaysia

Assets Class	2005				2004				2003				2002			
	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%
Real estate investment	15,210,899	2.3%	15,134,417	13.9%	13,591,445	6.5%	11,698,257	12.7%	10,447,916	5.5%	11,783,452	19.5%	12,844,557	18.4%	11,820,491	21.2%
Investment in subsidiaries	157,959,145	24.0%	7,129,920	6.6%	1,300,000	0.6%	5,801,737	6.3%	0	0.0%	886,221	1.5%	0	0.0%	886,221	1.6%
Mutual funds/Unit trusts	63,353,650	9.6%	931,055	0.9%	56,443,657	26.9%	927,895	1.0%	36,086,156	19.0%	927,895	1.5%	3,359,526	4.8%	927,895	1.7%
Total	**657,365,783**		**108,688,922**		**209,638,819**		**92,007,369**		**190,222,794**		**60,310,803**		**69,798,225**		**55,698,687**	

Table 15: Coefficient of Variation (*CV%) for Compsosition of each Asset Class under Shareholders Fund Investment Portfolio from 2002 to 2005.

Asset Class	2005			2004			2003			2002		
	Mean	CV(%)	n	Mean	CV(%)	n	Mean	CV(%)	n	Mean	CV(%)	n
Cash	1.90	**250.08**	11	2.67	**218.00**	11	1.19	**307.52**	10	2.04	**253.98**	8
Investment Accounts	36.09	**57.27**	11	38.96	**62.46**	11	47.17	**67.72**	10	40.88	**72.31**	8
Sukuk	6.13	**203.09**	11	5.21	**210.22**	11	2.20	**316.23**	10	5.36	**282.84**	8
Short-term government *sukuk*	0.00	**n.a**	11	0.00	**n.a**	11	0.00	**n.a**	10	0.00	**n.a**	8
Short-term corporate *sukuk*	1.14	**261.42**	11	0.26	**331.66**	11	0.00	**n.a**	10	0.00	**n.a**	8
Long-term government *sukuk*	0.00	**n.a**	11	0.00	**n.a**	11	0.00	**n.a**	10	0.00	**n.a**	8
Long-term corporate *sukuk*	4.99	**218.78**	11	4.96	**222.99**	11	2.20	**316.23**	10	5.36	**282.84**	8
Equities	34.08	**91.05**	11	33.48	**87.65**	11	25.56	**107.35**	10	26.91	**88.14**	8
Quoted Equities	21.49	**106.43**	11	20.50	**91.80**	11	15.61	**98.84**	10	16.63	**85.22**	8
Unquoted Equities	12.59	**139.25**	11	12.98	**177.03**	11	9.94	**151.10**	10	10.28	**170.48**	8
Real estate Investment	4.25	**206.80**	11	8.19	**168.78**	11	10.10	**152.61**	10	17.60	**102.34**	8
Investment in subsidiaries	5.35	**235.11**	11	1.07	**289.29**	11	0.26	**316.23**	10	0.35	**282.84**	8
Mutual funds/Unit trusts	11.54	**166.73**	11	9.64	**180.08**	11	11.86	**150.65**	10	4.35	**218.45**	8
Others	0.87	**264.88**	11	1.24	**235.26**	11	1.74	**316.23**	10	2.59	**282.84**	8
Total	100.00	**0.00**	11	100.00	**0.00**	11	100.00	**0.00**	10	100.00	**0.00**	8
Return on investment	18.09	**122.51**	11	9.91	**89.34**	11	5.51	**90.18**	10	4.80	**58.34**	8

*CV(%)=STD/Mean x 100%

Table 16: The Results of Mann-Whitney U Test for Year 2002

Test Statistics(b,c)						
	Mann-Whitney U	**Wilcoxon W**	**Z**	**Asymp. Sig. (2-tailed)**	**Remarks ***	**Exact Sig. [2*(1-tailed Sig.)]**
Cash	3	9	-1.537042615	0.12	ns	0.25
Investment Accounts (Deposits)	7	13	-0.149071198	0.88	ns	1
Sukuk	5	20	-1.290994449	0.20	ns	0.571428571
Short-term government *sukuk*	7.5	13.5	0	1.00	ns	1
Short-term corporate *sukuk*	7.5	13.5	0	1.00	ns	1
Long-term government *sukuk*	7.5	13.5	0	1.00	ns	1
Long-term corporate *sukuk*	5	20	-1.290994449	0.20	ns	0.571428571
Equities	5.5	11.5	-0.599866116	0.55	ns	0.571428571
Quoted Equities	7	22	-0.152752523	0.88	ns	1
Unquoted Equities	5	11	-0.763762616	0.45	ns	0.571428571
Real estate investments	5	11	-0.763762616	0.45	ns	0.571428571
Investments in subsidiaries	5	20	-1.290994449	0.20	ns	0.571428571
Mutual funds/Unit trusts	6	12	-0.512347538	0.61	ns	0.785714286
Others	5	20	-1.290994449	0.20	ns	0.571428571
Total Investments	7.5	13.5	0	1.00	ns	1
Return on Investment	4	10	-1.043498389	0.30	ns	0.392857143

* ns= Not significant

Table 17: The Results of Mann-Whitney U Test for Year 2003

Test Statistics(b,c)						
	Mann-Whitney U	**Wilcoxon W**	**Z**	**Asymp. Sig. (2-tailed)**	**Remarks ***	**Exact Sig. [2*(1-tailed Sig.)]**
Cash	10	16	-0.14021	0.89	ns	1
Investment Accounts (Deposits)	7	35	-0.79772	0.43	ns	0.516666667
Sukuk	7	35	-1.52753	0.13	ns	0.516666667
Short-term government *sukuk*	10.5	16.5	0	1.00	ns	1
Short-term corporate *sukuk*	10.5	16.5	0	1.00	ns	1
Long-term government *sukuk*	10.5	16.5	0	1.00	ns	1
Long-term corporate *sukuk*	7	35	-1.52753	0.13	ns	0.516666667
Equities	5.5	11.5	-1.14307	0.25	ns	0.266666667
Quoted Equities	10	16	-0.11537	0.91	ns	1
Unquoted Equities	5	11	-1.26904	0.20	ns	0.266666667
Real estate investments	10	16	-0.12839	0.90	ns	1
Investments in subsidiaries	7	35	-1.52753	0.13	ns	0.516666667
Mutual funds/Unit trusts	6	12	-1.0941	0.27	ns	0.383333333
Others	7	35	-1.52753	0.13	ns	0.516666667
Total Investments	10.5	16.5	0	1.00	ns	1
Return on Investment	9	15	-0.34188	0.73	ns	0.833333333

* ns= Not significant

Table 18: The Results of Mann-Whitney U Test for Year 2004

	Test Statistics(b,c)					
	Mann-Whitney U	**Wilcoxon W**	**Z**	**Asymp. Sig. (2-tailed)**	**Remarks ***	**Exact Sig. [2*(1-tailed Sig.)]**
Cash	7	43	-1.1821	0.24	ns	0.375757576
Investment Accounts (Deposits)	7	43	-1.02062	0.31	ns	0.375757576
Sukuk	**4.5**	**40.5**	**-1.94714**	**0.05**	**s**	**0.133333333**
Short-term government *sukuk*	12	18	0	1.00	ns	1
Short-term corporate *sukuk*	10.5	16.5	-0.61237	0.54	ns	0.775757576
Long-term government *sukuk*	12	18	0	1.00	ns	1
Long-term corporate *sukuk*	**4**	**40**	**-2.42212**	**0.02**	**s**	**0.133333333**
Equities	4.5	10.5	-1.53442	0.12	ns	0.133333333
Quoted Equities	8	14	-0.82402	0.41	ns	0.496969697
Unquoted Equities	9	15	-0.61802	0.54	ns	0.63030303
Real estate investments	11	17	-0.23642	0.81	ns	0.921212121
Investments in subsidiaries	9	45	-0.9083	0.36	ns	0.63030303
Mutual funds/Unit trusts	8	14	-0.89039	0.37	ns	0.496969697
Others	9	45	-0.9083	0.36	ns	0.63030303
Total Investments	12	18	0	1.00	ns	1
Return on Investment	5	11	-1.42887	0.15	ns	0.193939394

* ns=Not significant and s= Significant

Table 19: The Results of Mann-Whitney U Test for Year 2005

Test Statistics(b,c)						
	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)	Remarks*	Exact Sig. [2*(1-tailed Sig.)]
Cash	9.5	45.5	-0.556493	0.578	ns	0.63030303
Investment Accounts (Deposits)	4	40	-1.632993	0.102	ns	0.133333333
Sukuk	**1**	**37**	**-2.60062**	**0.009**	**s**	**0.024242424**
Short-term government *sukuk*	12	18	0	1.000	ns	1
Short-term corporate *sukuk*	9	45	-0.908295	0.364	ns	0.63030303
Long-term government *sukuk*	12	18	0	1.000	ns	1
Long-term corporate *sukuk*	**0**	**36**	**-3.115427**	**0.002**	**s**	**0.012121212**
Equities	**3**	**9**	**-1.83712**	**0.066**	**s**	**0.084848485**
Quoted Equities	6	12	-1.224745	0.221	ns	0.278787879
Unquoted Equities	**2.5**	**8.5**	**-1.943602**	**0.052**	**s**	**0.048484848**
Real estate investments	11	47	-0.23642	0.813	ns	0.921212121
Investments in subsidiaries	11	47	-0.259619	0.795	ns	0.921212121
Mutual funds/Unit trusts	6	12	-1.284523	0.199	ns	0.278787879
Others	9	45	-0.908295	0.364	ns	0.63030303
Total Investments	12	18	0	1.000	ns	1
Return on Investment	**0**	**6**	**-2.44949**	**0.014**	**s**	**0.012121212**

* ns=Not significant and s= Significant

Table 20: Volume and Composition of Investment Portfolio for the Surveyed *Takaful Operating Companies* for the General Funds

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Cash	3,607,338	1.1%	9,223,761	3.7%	7,790,721	4.3%	-1,031,692	-0.8%
Investment Accounts (Deposits)	123,302,194	37.0%	107,547,791	43.5%	77,035,051	42.2%	62,928,757	50.6%
Sukuk	79,205,491	23.8%	51,116,671	20.7%	40,225,455	22.0%	24,758,545	19.9%
Equities	98,435,440	29.6%	54,129,936	21.9%	37,732,825	20.7%	21,473,057	17.3%
Real estate investments	22,200,267	6.7%	18,911,203	7.6%	15,414,235	8.4%	11,917,407	9.6%
Investment in subsidiaries	520,185	0.2%	518,419	0.2%	518,419	0.3%	518,419	0.4%
Mutual funds/Unit trusts	3,008,077	0.9%	3,142,137	1.3%	1,128,105	0.6%	1,020,526	0.8%
Conventional products	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	2,696,385	0.8%	2,687,231	1.1%	2,748,886	1.5%	2,817,982	2.3%
Total	**332,975,377**	100.0%	**247,277,149**	100.0%	**182,593,698**	100.0%	**124,403,001**	100.0%
Return on Investment	48,516,218	14.6%	14,563,952	5.9%	7,119,829	3.9%	5,890,416	4.7%

Table 21: Volume and Composition of Investment Portfolio for the Surveyed Takaful Operating Companies for the General Funds in US$ Divided into GCC and Malaysia

Assets Class	2005				2004				2003				2002			
	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%
Cash	4,050,416	2.6%	-443,077	-0.3%	6,024,237	6.9%	3,199,523	2.0%	3,638,851	6.3%	4,151,870	3.3%	803,696	4.0%	-1,835,388	-1.8%
Investment Accounts (Deposits)	66,278,709	42.2%	57,023,484	32.4%	38,954,371	44.9%	68,593,420	42.7%	29,667,870	51.6%	47,367,181	37.9%	12,400,655	61.8%	50,528,101	48.4%
Sukuk	0	0.0%	79,205,491	45.0%	0	0.0%	51,116,671	31.8%	0	0.0%	40,225,455	32.2%	0	0.0%	24,758,545	23.7%
Equities	73,445,349	46.8%	24,990,091	14.2%	29,428,812	33.9%	24,701,124	15.4%	17,622,597	30.7%	20,110,228	16.1%	3,992,977	19.9%	17,480,080	16.8%
Real estate investments	11,031,949	7.0%	11,168,318	6.3%	10,098,263	11.6%	8,812,940	5.5%	6,444,417	11.2%	8,969,818	7.2%	2,857,143	14.2%	9,060,264	8.7%
Investment in subsidiaries	0	0.0%	520,185	0.3%	0	0.0%	518,419	0.3%	0	0.0%	518,419	0.4%	0	0.0%	518,419	0.5%
Mutual funds/Unit trusts	2,082,302	1.3%	925,774	0.5%	2,219,505	2.6%	922,632	0.6%	119,421	0.2%	1,008,684	0.8%	0	0.0%	1,020,526	1.0%
Conventional products	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	0	0.0%	2,696,385	1.5%	0	0.0%	2,687,231	1.7%	0	0.0%	2,748,886	2.2%	0	0.0%	2,817,982	2.7%
Total	**156,888,726**	100.0%	**176,086,651**	100.0%	**86,725,188**	100.0%	**160,551,961**	100.0%	**57,493,156**	100.0%	**125,100,542**	100.0%	**20,054,471**	100.0%	**104,348,530**	100.0%
Return on Investment	43,203,522	27.5%	5,312,696	3.0%	9,226,877	10.6%	5,337,075	3.3%	3,540,580	6.2%	3,579,248	2.9%	2,071,710	10.3%	3,818,705	3.7%

A **Table 22: Composition of Short and Long Term General Funds Investment Portfolio**

Short-Term

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Cash	3,607,338	3.1%	9,223,761	8.5%	7,790,721	10.0%	-1,031,692	-1.9%
Investment Accounts (Deposits)	112,989,497	96.9%	99,613,701	91.5%	69,481,220	89.2%	55,714,384	101.9%
Sukuk	0	0.0%	0	0.0%	655,610	0.8%	0	0.0%
Conventional products	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	**116,596,835**	**100.0%**	**108,837,462**	**100.0%**	**77,927,551**	**100.0%**	**54,682,692**	**100.0%**

Long-Term

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Cash	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Investment Accounts (Deposits)	10,312,697	4.8%	7,934,090	5.7%	7,553,831	7.2%	7,214,373	10.3%
Sukuk	79,205,491	36.6%	51,116,671	36.9%	39,569,845	37.8%	24,758,545	35.5%
Equities	98,435,440	45.5%	54,129,936	39.1%	37,732,825	36.1%	21,473,057	30.8%
Real estate investments	22,200,267	10.3%	18,911,203	13.7%	15,414,235	14.7%	11,917,407	17.1%
Investment in subsidiaries	520,185	0.2%	518,419	0.4%	518,419	0.5%	518,419	0.7%
Mutual funds/Unit trusts	3,008,077	1.4%	3,142,137	2.3%	1,128,105	1.1%	1,020,526	1.5%
Conventional products	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	2,696,385	1.2%	2,687,231	1.9%	2,748,886	2.6%	2,817,982	4.0%
Total	**216,378,542**	100.0%	**138,439,687**	100.0%	**104,666,147**	100.0%	**69,720,309**	100.0%

Table 23: Composition of Short and Long Term General Funds Investment Portfolio in US$ - GCC Vs. Malaysia

Short-Term

Assets Class	2005				2004				2003				2002			
	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%
Cash	4,050,416	5.9%	-443,077	-0.9%	6,024,237	13.5%	3,199,523	5.0%	3,638,851	10.9%	4,151,870	9.3%	803,696	6.1%	-1,835,388	-4.4%
Investment Accounts (Deposits)	65,129,892	94.1%	47,859,605	100.9%	38,574,112	86.5%	61,039,589	95.0%	29,667,870	89.1%	39,813,350	89.2%	12,400,655	93.9%	43,313,728	104.4%
Sukuk	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	655,610	1.5%	0	0.0%	0	0.0%
Conventional products	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	**69,180,307**	**100.0%**	**47,416,528**	**100.0%**	**44,598,350**	**100.0%**	**64,239,112**	**100.0%**	**33,306,721**	**100.0%**	**44,620,830**	**100.0%**	**13,204,351**	**#DIV/0!**	**41,478,341**	**100.0%**

Long -Term

Assets Class	2005				2004				2003				2002			
	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%
Cash	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Investment Accounts (Deposits)	1,148,818	1.3%	9,163,879	7.1%	380,259	0.9%	7,553,831	7.8%	0	0.0%	7,553,831	9.4%	0	0.0%	7,214,373	11.5%
Sukuk	0	0.0%	79,205,491	61.6%	0	0.0%	51,116,671	53.1%	0	0.0%	39,569,845	49.2%	0	0.0%	24,758,545	39.4%
Equities	73,445,349	83.7%	24,990,091	19.4%	29,428,812	69.9%	24,701,124	25.6%	17,622,597	72.9%	20,110,228	25.0%	3,992,977	58.3%	17,480,080	27.8%
Real estate investments	11,031,949	12.6%	11,168,318	8.7%	10,098,263	24.0%	8,812,940	9.2%	6,444,417	26.6%	8,969,818	11.1%	2,857,143	41.7%	9,060,264	14.4%
Investment in subsidiaries	0	0.0%	520,185	0.4%	0	0.0%	518,419	0.5%	0	0.0%	518,419	0.6%	0	0.0%	518,419	0.8%
Mutual funds/Unit trusts	2,082,302	2.4%	925,774	0.7%	2,219,505	5.3%	922,632	1.0%	119,421	0.5%	1,008,684	1.3%	0	0.0%	1,020,526	1.6%
Conventional products	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	0	0.0%	2,696,385	2.1%	0	0.0%	2,687,231	2.8%	0	0.0%	2,748,886	3.4%	0	0.0%	2,817,982	4.5%
Total	**87,708,418**	**100.0%**	**128,670,124**	**100.0%**	**42,126,838**	**100.0%**	**96,312,849**	**100.0%**	**24,186,435**	**100.0%**	**80,479,712**	**100.0%**	**6,850,120**	**100.0%**	**62,870,189**	**100.0%**

Table 24: Composition of Investment Accounts in Short and Long Term Investment Portfolio for General Funds

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Short-term								
Investment Accounts	112,989,497	91.6%	99,613,701	92.6%	69,481,220	90.2%	55,714,384	88.5%
Long-term								
Investment Accounts	10,312,697	8.4%	7,934,090	7.4%	7,553,831	9.8%	7,214,373	11.5%
Total	123,302,194	100.0%	107,547,791	100.0%	77,035,051	100.0%	62,928,757	100.0%
% of total General Fund investment		37.0%		43.5%		42.2%		50.6%

Table 25: Composition of Investment Accounts in Short and Long Term Investment Portfolio for General Funds in US$ -GCC Vs. Malaysia

Assets Class	2005				2004				2003				2002			
	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%
Short-term																
Investment Accounts	65,129,892	98.3%	47,859,605	83.9%	38,574,112	99.0%	61,039,589	89.0%	29,667,870	100.0%	39,813,350	84.1%	12,400,655	100.0%	43,313,728	85.7%
Long-term																
Investment Accounts	1,148,818	1.7%	9,163,879	16.1%	380,259	1.0%	7,553,831	11.0%	0	0.0%	7,553,831	15.9%	0	0.0%	7,214,373	14.3%
Total	66,278,709	**100.0%**	57,023,484	**100.0%**	38,954,371	**100.0%**	68,593,420	**100.0%**	29,667,870	**100.0%**	47,367,181	**100.0%**	12,400,655	**100.0%**	50,528,101	**100.0%**
% of total General Fund investment		42.2%		32.4%		44.9%		42.7%		51.6%		37.9%		61.8%		48.4%

Table 26: Composition of *Sukuk* in Short and Long Term Investment Portfolio for General Funds

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Short-term	0	0.0%	0	0.0%	655,610	1.6%	0	0.0%
Government *Sukuk*	0	0.0%	0	0.0%	655,610	1.6%	0	0.0%
Corporate *Sukuk*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Long-term	79,205,491	100.0%	51,116,671	100.0%	39,569,845	98.4%	24,758,545	100.0%
Government *Sukuk*	46,697,631	59.0%	29,394,135	57.5%	23,642,707	58.8%	12,378,473	50.0%
Corporate *Sukuk*	32,507,860	41.0%	21,722,536	42.5%	15,927,139	39.6%	12,380,072	50.0%
Total	79,205,491	100.0%	51,116,671	100.0%	40,225,455	100.0%	24,758,545	100.0%
% of total General Fund investment		23.8%		20.7%		22.0%		19.9%

Table 27: Composition of *Sukuk* in Short and Long Term Investment Portfolio for General Funds in US$ - GCC Vs. Malaysia

Assets Class	2005				2004				2003				2002			
	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%
Short-term	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**	**0**	**0.0%**	**655,610**	**1.6%**	**0**	**0.0%**	**0**	**0.0%**
Government *Sukuk*	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	655,610	1.6%	0	0.0%	0	0.0%
Corporate *Sukuk*	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Long-term	**0**	**0.0%**	**79,205,491**	**100.0%**	**0**	**0.0%**	**51,116,671**	**0.0%**	**0**	**0.0%**	**39,569,845**	**98.4%**	**0**	**0.0%**	**24,758,545**	**100.0%**
Government *Sukuk*	0	0.0%	46,697,631	59.0%	0	0.0%	29,394,135	0.0%	0	0.0%	23,642,707	58.8%	0	0.0%	12,378,473	50.0%
Corporate *Sukuk*	0	0.0%	32,507,860	41.0%	0	0.0%	21,722,536	0.0%	0	0.0%	15,927,139	39.6%	0	0.0%	12,380,072	50.0%
Total	**0**	**0.0%**	**79,205,491**	**100.0%**	**0**	**0.0%**	**51,116,671**	**0.0%**	**0**	**0.0%**	**40,225,455**	**100.0%**	**0**	**0.0%**	**24,758,545**	**100.0%**
% of total General Fund investment		**0.0%**		**45.0%**		**0.0%**		**0.0%**		**0.0%**		**32.2%**		**0.0%**		**23.7%**

Table 28: Composition of Equities in Investment Portfolio for General Funds

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Quoted	75,691,404	76.9%	44,801,636	82.8%	29,988,694	79.5%	19,825,841	92.3%
Unquoted	22,744,036	23.1%	9,328,300	17.2%	7,744,131	20.5%	1,647,216	7.7%
Total	**98,435,440**	**100.0%**	**54,129,936**	**100.0%**	**37,732,825**	**100.0%**	**21,473,057**	**100.0%**
% from total General Fund investment		**29.6%**		**21.9%**		**20.7%**		**17.3%**

Table 29: Composition of Equities in Investment Portfolio for General Funds in US$ -GCC Vs. Malaysia

Assets Class	2005				2004				2003				2002			
	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%
Quoted	50,887,337	69.3%	24,804,066	99.3%	20,233,273	68.8%	24,568,363	99.5%	10,011,227	56.8%	19,977,467	99.3%	2,478,523	62.1%	17,347,319	99.2%
Unquoted	22,558,012	30.7%	186,024	0.7%	9,195,539	31.2%	132,761	0.5%	7,611,370	43.2%	132,761	0.7%	1,514,455	37.9%	132,761	0.8%
Total	**73,445,349**	**100.0%**	**24,990,091**	**100.0%**	**29,428,812**	**100.0%**	**24,701,124**	**100.0%**	**17,622,597**	**100.0%**	**20,110,228**	**100.0%**	**3,992,977**	**100.0%**	**17,480,080**	**100.0%**
% of total General Fund investment		46.8%		14.2%		33.9%		15.4%		30.7%		16.1%		19.9%		16.8%

Table 30: Composition of Other Asset Classes in Investment Portfolio for General Funds

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Real estate investment	22,200,267	6.7%	18,911,203	7.6%	15,414,235	8.4%	11,917,407	9.6%
Investment in subsidiaries	520,185	0.2%	518,419	0.2%	518,419	0.3%	518,419	0.4%
Mutual funds/Unit trusts	3,008,077	0.9%	3,142,137	1.3%	1,128,105	0.6%	1,020,526	0.8%
Total	**332,975,377**	**100.0%**	**247,277,149**	**100.0%**	**182,593,698**	**100.0%**	**124,403,001**	**100.0%**

Table 31:Composition of Other Asset Classes in Investment Portfolio for General Funds in US$ -GCC Vs. Malaysia

Assets Class	2005				2004				2003				2002			
	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%	GCC	%	Malaysia	%
Real estate investment	11,031,949	7.0%	11,168,318	6.3%	10,098,263	11.6%	8,812,940	5.5%	6,444,417	11.2%	8,969,818	7.2%	2,857,143	14.2%	9,060,264	8.7%
Investment in subsidiaries	0	0.0%	520,185	0.3%	0	0.0%	518,419	0.3%	0	0.0%	518,419	0.4%	0	0.0%	518,419	0.5%
Mutual funds/Unit trusts	2,082,302	1.3%	925,774	0.5%	2,219,505	2.6%	922,632	0.6%	119,421	0.2%	1,008,684	0.8%	0	0.0%	1,020,526	1.0%
Total	**156,888,726**		**176,086,651**		**86,725,188**		**160,551,961**		**57,493,156**		**125,100,542**		**20,054,471**		**104,348,530**	

Table 32: Coefficient of Variation (*CV%) for Compsosition of each asset class under General Fund investment portfolio from 2002 to 2005.

Asset Class	2002			2003			2004			2005		
	Mean	CV(%)	n	Mean	CV(%)	n	Mean	CV(%)	n	Mean	CV(%)	n
Cash	6.52	**165.11**	8	7.97	**133.05**	10	14.84	**206.65**	11	3.44	**173.45**	11
Investment Accounts	65.67	**30.88**	8	56.22	**54.31**	10	49.48	**67.12**	11	53.26	**67.24**	11
Sukuk	7.07	**175.24**	8	10.59	**152.28**	10	8.96	**168.72**	11	11.95	**175.00**	11
Short-term government *sukuk*	0.00	**n.a**	8	3.27	**300.00**	10	0.00	**n.a**	11	0.00	**n.a**	11
Short-term corporate *sukuk*	0.00	**n.a**	8	0.00	**n.a**	10	0.00	**n.a**	11	0.00	**n.a**	11
Long-term government *sukuk*	3.73	**191.72**	8	4.37	**201.60**	10	5.98	**162.80**	11	7.15	**171.72**	11
Long-term corporate *sukuk*	3.34	**171.38**	8	2.94	**201.50**	10	2.98	**232.73**	11	4.80	**185.40**	11
Equities	12.40	**100.06**	8	17.62	**132.75**	10	19.36	**134.38**	11	25.49	**125.36**	11
Quoted Equities	9.52	**102.32**	8	11.62	**100.63**	10	14.60	**119.03**	11	19.08	**130.96**	11
Unquoted Equities	2.88	**261.38**	8	6.01	**224.20**	10	4.76	**312.97**	11	6.41	**205.01**	11
Real estate Investment	7.35	**192.92**	8	6.82	**191.04**	10	5.96	**223.93**	11	4.74	**233.34**	11
Investment in subsidiaries	0.12	**264.58**	8	0.08	**300.00**	10	0.06	**316.23**	11	0.05	**331.66**	11
Mutual funds/Unit trusts	0.24	**224.11**	8	0.27	**185.32**	10	1.04	**197.14**	11	0.81	**293.62**	11
Others	2.26	**264.58**	8	1.64	**300.00**	10	1.51	**244.65**	11	1.47	**256.43**	11
Total	100.00	**0.00**	8	100.00	**0.00**	10	100.00	**0.00**	11	100.00	**0.00**	11
Return on investment	7.23	**106.30**	8	6.10	**117.88**	10	10.18	**111.29**	11	16.82	**134.19**	11

*CV(%)=STD/Mean x 100%

Table 33: The Results of Mann-Whitney U Test for Year 2002

Test Statistics(b,c)						
	Mann-Whitney U	**Wilcoxon W**	**Z**	**Asymp. Sig. (2-tailed)**	**Remarks ***	**Exact Sig. [2*(1-tailed Sig.)]**
Cash	**0.5**	**3.5**	**-1.75862**	**0.08**	**s**	**0.095238095**
Investment Accounts (Deposits)	1	4	-1.54919	0.12	ns	0.19047619
Sukuk	**0**	**15**	**-2.41523**	**0.02**	**s**	**0.095238095**
Short-term government *sukuk*	5	8	0	1.00	ns	1
Short-term corporate *sukuk*	5	8	0	1.00	ns	1
Long-term government *sukuk*	**0**	**15**	**-2.41523**	**0.02**	**s**	**0.095238095**
Long-term corporate *sukuk*	**0**	**15**	**-2.41523**	**0.02**	**s**	**0.095238095**
Equities	4	19	-0.40192	0.69	ns	0.857142857
Quoted Equities	2	17	-1.20576	0.23	ns	0.380952381
Unquoted Equities	4	19	-0.48305	0.63	ns	0.857142857
Real estate investments	4	19	-0.48305	0.63	ns	0.857142857
Investments in subsidiaries	2.5	17.5	-1.58114	0.11	ns	0.380952381
Mutual funds/Unit trusts	**0**	**15**	**-2.41523**	**0.02**	**s**	**0.095238095**
Others	2.5	17.5	-1.58114	0.11	ns	0.380952381
Total Investments	5	8	0	1.00	ns	1
Return on Investment	4	7	-0.3873	0.70	ns	0.857142857

* ns=Not significant and s= Significant

Table 34: The Results of Mann-Whitney U Test for Year 2003

Test Statistics(b,c)						
	Mann-Whitney U	**Wilcoxon W**	**Z**	**Asymp. Sig. (2-tailed)**	**Remarks ***	**Exact Sig. [2*(1-tailed Sig.)]**
Cash	7	28	-0.52523	0.60	ns	0.714285714
Investment Accounts (Deposits)	4	10	-1.29099	0.20	ns	0.261904762
Sukuk	**0**	**21**	**-2.76107**	**0.01**	**s**	**0.023809524**
Short-term government *sukuk*	6	27	-1.41421	0.16	ns	0.547619048
Short-term corporate *sukuk*	9	15	0	1.00	ns	1
Long-term government *sukuk*	**3**	**24**	**-2.12132**	**0.03**	**s**	**0.166666667**
Long-term corporate *sukuk*	**3**	**24**	**-2.12132**	**0.03**	**s**	**0.166666667**
Equities	9	15	0	1.00	ns	1
Quoted Equities	9	15	0	1.00	ns	1
Unquoted Equities	8	14	-0.30679	0.76	ns	0.904761905
Real estate investments	9	15	0	1.00	ns	1
Investments in subsidiaries	6	27	-1.41421	0.16	ns	0.547619048
Mutual funds/Unit trusts	4.5	25.5	-1.38054	0.17	ns	0.261904762
Others	6	27	-1.41421	0.16	ns	0.547619048
Total Investments	9	15	0	1.00	ns	1
Return on Investment	8	14	-0.2582	0.80	ns	0.904761905

* ns=Not significant and s= Significant

Table 35: The Results of Mann-Whitney U Test for Year 2004

Test Statistics(b,c)						
	Mann-Whitney U	**Wilcoxon W**	**Z**	**Asymp. Sig. (2-tailed)**	**Remarks ***	**Exact Sig. [2*(1-tailed Sig.)]**
Cash	7	13	-0.80757	0.42	ns	0.516666667
Investment Accounts (Deposits)	10	16	-0.11396	0.91	ns	1
Sukuk	**0**	**28**	**-2.94444**	**0.00**	**s**	**0.016666667**
Short-term government *sukuk*	10.5	16.5	0	1.00	ns	1
Short-term corporate *sukuk*	10.5	16.5	0	1.00	ns	1
Long-term government *sukuk*	**0**	**28**	**-2.94444**	**0.00**	**s**	**0.016666667**
Long-term corporate *sukuk*	**3.5**	**31.5**	**-2.2771**	**0.02**	**s**	**0.116666667**
Equities	9.5	15.5	-0.23516	0.81	ns	0.833333333
Quoted Equities	9.5	15.5	-0.23516	0.81	ns	0.833333333
Unquoted Equities	9	15	-0.38516	0.70	ns	0.833333333
Real estate investments	10	38	-0.14021	0.89	ns	1
Investments in subsidiaries	7	35	-1.52753	0.13	ns	0.516666667
Mutual funds/Unit trusts	10	16	-0.14021	0.89	ns	1
Others	8	36	-0.81325	0.42	ns	0.666666667
Total Investments	10.5	16.5	0	1.00	ns	1
Return on Investment	6	12	-1.02565	0.31	ns	0.383333333

* ns=Not significant and s= Significant

Table 36: The Results of Mann-Whitney U Test for Year 2005

Test Statistics(b,c)						
	Mann-Whitney U	**Wilcoxon W**	**Z**	**Asymp. Sig. (2-tailed)**	**Remarks***	**Exact Sig. [2*(1-tailed Sig.)]**
Cash	8	14	-0.856349	0.39	ns	0.496969697
Investment Accounts (Deposits)	10	16	-0.409179	0.68	ns	0.775757576
Sukuk	**0**	**36**	**-3.115427**	**0.00**	**s**	**0.012121212**
Short-term government *sukuk*	12	18	0	1.00	ns	1
Short-term corporate *sukuk*	12	18	0	1.00	ns	1
Long-term government *sukuk*	**0**	**36**	**-3.115427**	**0.00**	**s**	**0.012121212**
Long-term corporate *sukuk*	**0**	**36**	**-3.115427**	**0.00**	**s**	**0.012121212**
Equities	10	16	-0.428174	0.67	ns	0.775757576
Quoted Equities	10	16	-0.428174	0.67	ns	0.775757576
Unquoted Equities	10	16	-0.428174	0.67	ns	0.775757576
Real estate investments	11	47	-0.259619	0.80	ns	0.921212121
Investments in subsidiaries	8	44	-1.632993	0.10	ns	0.496969697
Mutual funds/Unit trusts	10	46	-0.60553	0.54	ns	0.775757576
Others	10	46	-0.519238	0.60	ns	0.775757576
Total Investments	12	18	0	1.00	ns	1
Return on Investment	**2**	**8**	**-2.041241**	**0.04**	**s**	**0.048484848**

* ns=Not significant and s= Significant

Table 37: Volume and Composition of Investment Portfolio for the *Takaful Operating Companies* in Malaysia for the Family Funds

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Cash	5,703,396	0.5%	1,527,914	0.1%	8,370,787	1.0%	15,769,475	2.2%
Investment Accounts (Deposits)	329,397,418	28.5%	355,095,897	34.7%	311,333,669	36.0%	314,818,714	43.5%
Sukuk	600,403,409	52.0%	503,587,123	49.2%	433,250,176	50.1%	314,503,858	43.5%
Equities	153,398,349	13.3%	129,877,878	12.7%	84,571,543	9.8%	52,541,481	7.3%
Real estate investments	47,787,315	4.1%	17,869,413	1.7%	17,387,417	2.0%	16,186,857	2.2%
Investment in subsidiaries	7,911,765	0.7%	9,500,021	0.9%	3,978,030	0.5%	3,978,030	0.5%
Mutual funds/Unit trusts	5,817,927	0.5%	1,829,474	0.2%	2,215,789	0.3%	2,214,211	0.3%
Conventional products	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	4,316,290	0.4%	3,760,190	0.4%	3,545,143	0.4%	3,674,304	0.5%
Total	**1,154,735,869**	100.0%	**1,023,047,909**	100.0%	**864,652,554**	100.0%	**723,686,930**	100.0%
Return on Investment	54,047,654	4.7%	46,562,512	4.6%	39,977,801	4.6%	33,009,477	4.6%

Table 38: Composition of Short and Long Term Investment Portfolio for Family Funds in Malaysia

Short-Term

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Cash	5,703,396	1.8%	1,527,914	0.5%	8,370,787	2.7%	15,769,475	4.9%
Investment Accounts (Deposits)	304,447,051	98.2%	336,644,660	99.5%	298,969,231	97.1%	306,508,223	95.1%
Sukuk	0	0.0%	0	0.0%	655,610	0.2%	0	0.0%
Conventional products	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	**310,150,447**	**100.0%**	**338,172,573**	**100.0%**	**307,995,628**	**100.0%**	**322,277,698**	**100.0%**

Long-Term

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Cash	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Investment Accounts (Deposits)	24,950,367	3.0%	18,451,237	2.7%	12,364,438	2.2%	8,310,491	2.1%
Sukuk	600,403,409	71.1%	503,587,123	73.5%	432,594,566	77.7%	314,503,858	78.3%
Equities	153,398,349	18.2%	129,877,878	19.0%	84,571,543	15.2%	52,541,481	13.1%
Real estate investments	47,787,315	5.7%	17,869,413	2.6%	17,387,417	3.1%	16,186,857	4.0%
Investment in subsidiaries	7,911,765	0.9%	9,500,021	1.4%	3,978,030	0.7%	3,978,030	1.0%
Mutual funds/Unit trusts	5,817,927	0.7%	1,829,474	0.3%	2,215,789	0.4%	2,214,211	0.6%
Conventional products	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	4,316,290	0.5%	3,760,190	0.5%	3,545,143	0.6%	3,674,304	0.9%
Total	**844,585,422**	**100.0%**	**684,875,336**	**100.0%**	**556,656,926**	**100.0%**	**401,409,232**	**100.0%**

Table 39: Composition of Investment Accounts in Short and Long Term Investment Portfolio for Family Funds in Malaysia

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Short-term								
Investment Accounts	304,447,051	92.4%	336,644,660	94.8%	298,969,231	96.0%	306,508,223	97.4%
Long-term								
Investment Accounts	24,950,367	7.6%	18,451,237	5.2%	12,364,438	4.0%	8,310,491	2.6%
Total	329,397,418	**100.0%**	355,095,897	**100.0%**	311,333,669	**100.0%**	314,818,714	**100.0%**

Table 40: Composition of *Sukuk* in Short and Long Term Investment Portfolio for Family Funds in Malaysia

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Short-term	0	**0.0%**	0	**0.0%**	655,610	**0.2%**	0	**0.0%**
Government *Sukuk*	0	0.0%	0	0.0%	655,610	0.2%	0	0.0%
Corporate *Sukuk*	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Long-term	600,403,409	**100.0%**	503,587,123	**100.0%**	432,594,566	**99.8%**	314,503,858	**100.0%**
Government *Sukuk*	229,602,653	38.2%	184,391,281	36.6%	151,972,635	35.1%	109,774,580	34.9%
Corporate *Sukuk*	370,800,756	61.8%	319,195,841	63.4%	280,621,931	64.8%	204,729,277	65.1%
Total	600,403,409	**100.0%**	503,587,123	**100.0%**	433,250,176	**100.0%**	314,503,858	**100.0%**
% of total Family Funds investment		**52.0%**		**49.2%**		**50.1%**		**43.5%**

Table 41: Composition of Equities in Investment Portfolio for Family Funds in Malaysia

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Quoted	152,444,712	99.4%	129,511,514	99.7%	84,205,179	99.6%	52,200,972	99.4%
Unquoted	953,637	0.6%	366,364	0.3%	366,364	0.4%	340,509	0.6%
Total	**153,398,349**	**100.0%**	**129,877,878**	**100.0%**	**84,571,543**	**100.0%**	**52,541,481**	**100.0%**

Table 42: Composition of Other Asset Classes in Investment Portfolio for Family Funds in Malaysia

Assets Class	2005		2004		2003		2002	
	US$	%	US$	%	US$	%	US$	%
Real estate investment	47,787,315	4.0%	17,869,413	1.7%	17,387,417	2.0%	16,186,857	2.2%
Investment in subsidiaries	7,911,765	0.7%	9,500,021	0.9%	3,978,030	0.5%	3,978,030	0.5%
Mutual funds/Unit trusts	5,817,927	0.5%	1,829,474	0.2%	2,215,789	0.3%	2,214,211	0.3%
Total	**1,183,022,020**		**1,031,410,310**		**869,657,131**		**726,670,869**	

Table 43: Coefficient of Variation (*CV%) for Compsosition of each Asset Class under Family Funds Investment Portfolio from 2002 to 2005.

Asset Class	2002			2003			2004			2005		
	Mean	CV(%)	n	Mean	CV(%)	n	Mean	CV(%)	n	Mean	CV(%)	n
Cash	2.43	**141.42**	3	3.81	**128.52**	3	4.41	**170.41**	3	5.33	**164.65**	3
Investment Accounts	41.88	**15.52**	3	41.26	**34.04**	3	44.54	**46.20**	3	31.07	**33.19**	3
Sukuk	43.42	**1.34**	3	45.35	**23.07**	3	39.08	**45.47**	3	49.09	**11.62**	3
Short-term government *sukuk*	0.00	**#DIV/0!**	3	8.70	**173.21**	3	0.00	**#DIV/0!**	3	0.00	**#DIV/0!**	3
Short-term corporate *sukuk*	0.00	**#DIV/0!**	3	0.00	**#DIV/0!**	3	0.00	**#DIV/0!**	3	0.00	**#DIV/0!**	3
Long-term government *sukuk*	14.57	**56.64**	3	11.61	**88.53**	3	18.10	**9.70**	3	21.18	**11.00**	3
Long-term corporate *sukuk*	28.85	**26.59**	3	22.14	**92.54**	3	20.97	**86.65**	3	27.91	**28.27**	3
Equities	6.99	**52.67**	3	6.22	**118.25**	3	8.24	**101.63**	3	8.64	**111.28**	3
Quoted Equities	6.94	**54.13**	3	6.19	**119.05**	3	8.21	**101.97**	3	8.58	**111.41**	3
Unquoted Equities	0.05	**141.42**	3	0.03	**173.21**	3	0.03	**173.21**	3	0.05	**94.11**	3
Real estate Investment	2.49	**141.42**	3	1.48	**173.21**	3	1.30	**173.21**	3	3.09	**173.21**	3
Investment in subsidiaries	0.61	**141.42**	3	0.34	**173.21**	3	0.69	**173.21**	3	0.51	**173.21**	3
Mutual funds/Unit trusts	0.33	**100.09**	3	0.18	**136.44**	3	0.13	**173.21**	3	0.38	**173.21**	3
Others	1.85	**141.42**	3	1.36	**173.21**	3	1.61	**173.21**	3	1.89	**173.21**	3
Total	100.00	**0.00**	3	100.00	**0.00**	3	100.00	**0.00**	3	100.00	**0.00**	3
Return on investment	4.55	**3.42**	3	4.04	**24.92**	3	4.00	**23.92**	3	4.20	**20.67**	3

*CV(%)=STD/Mean x 100%

Table 44: Descriptive Statistics for Capital of *Takaful Operating Companies* in US$

Descriptive Statistics	GCC	MY
Minmum	13,298,000	26,405,429
Maximum	272,294,078	40,306,039
Mean	64,718,027	31,038,966
Standard Deviation	88,398,907	8,025,521

Appendix C

Appendix C

Exchange Rate

Currency	Exchange rate against US$			
	2002	2003	2004	2005
Bahraini Dinar	0.3760	0.3760	0.3760	0.3760
Qatari Riyal	3.6410	3.6410	3.6410	3.6410
Emarati Durham	3.6710	3.6710	3.6710	3.6710
Kuwaiti Dinar	0.2995	0.29486	0.2949	0.2920
Malaysian Ringgit	3.8000	3.8000	3.8000	3.7800