

GLOBAL TAKAFUL REPORT 2017 Market Trends in Family & General Takaful RESEARCH REPORT - Abridged Version by

C Milliman

Dear Takaful Leader,

It is with great pleasure that we announce the exclusive launch of the groundbreaking Global Takaful Report 2017 at the 12th annual World Takaful Conference (WTC) - the world's definitive gathering of international leaders in the Islamic Insurance landscape, and a platform where more than 300 industry leaders from over 150 leading organizations have converged to chart the future of the global Takaful industry.

Entitled "Market Trends in Family and General Takaful," the Global Takaful Report 2017 has been developed by Milliman, one of the world's largest consulting and actuarial firms. Its aim is to provide Takaful leaders with a comprehensive outlook to shape the future course of the industry. The report aims to equip Takaful leaders in the regulatory, economic, demographical and technological landscape by enabling them to take stock of the key industry trends, analyze forecasts and projections, and explore factors that are critical to their organization's long-term growth.

It is hard to overlook the significant contribution of Family Takaful as a major growth driver in the global Takaful industry. The report will, in particular, examine the growth of the global and family Takaful markets in the period 2012-2015, providing an in-depth analysis of financial trends, market penetration rates, and the various opportunities and challenges that lie in store for Takaful leaders across the world.

Since its inception in 2006, The World Takaful Conference has been instrumental in facilitating dialogue and best practices amongst renowned industry leaders, and has been a significant contributor to enhancing growth, excellence and innovation in the global Takaful industry. Time and again, WTC has proven to be an ideal launching pad for research and intelligence reports that provide strategic insights to critical issues targeting the industry at large.

We would like to express our sincere gratitude to the team at Milliman for partaking in robust research and investing their considerable resources in developing the Global Takaful Report 2017. I am confident this report will serve as a barometer to gauge and shape the performance of the global Takaful industry.

We sincerely hope that this report provides meaningful insights for you in ways that enhance strategic planning activities and boost business opportunities that vital for your organization's success.

Regards,

Ehson A.R

Ehsan Abbas *Chairman* Middle East Global Advisors



Contents

Overview	05
Executive Summary	06
Background	12
The Global Takaful Market	13
The Family Takaful Market	17
The General Takaful Market	21
Takaful Market Penetration	25
Financial Insights: Malaysia	28
Financial Insights: Indonesia	36
Financial Insights: GCC Countries	42
Key Regulatory Updates	50
Opportunities in Retirement Savings	54
Conclusion and Future Outlook	58
Appendix A: Reliances and Limitations	60
Appendix B: Key Sources of Data	62
Milliman Solutions and Contact Details	65



Overview

Milliman is pleased to present the Global Takaful Report 2017.

There have been a number of industry reports on takaful that analyse the performance of the takaful industry globally, but most reports tend to provide a combined analysis of general and family takaful. The drivers for general takaful can be significantly different than those for family takaful. It has been widely noted that such combined analysis may skew and distort results. As such, there is a demand in the market for an industry report which analyses family takaful and general takaful separately.

The Milliman Global Takaful Report meets this demand by providing an invaluable reference source for industry participants. As a follow-up to our previous reports, this year we have extended our coverage to include both the family takaful and general takaful industries, with each industry being considered separately in our analysis as we explore and highlight the underlying trends within each sector.

This report summarizes the quantitative and qualitative analyses of both the family takaful and general takaful industries, not only in aggregate, but also separately by key regions. It delivers insight into overall market trends, market penetration rates and current hot topics. In particular, we provide insight into financial trends as well as new regulatory updates within the key markets. There is also a special feature on the opportunities in the retirement savings space within the takaful industry.

Milliman has experienced takaful consultants in our Dubai, Malaysia and London offices. We are pleased to present ourselves to the takaful industry as thought leaders and a reference point to meet some of the industry challenges required within both family and general takaful.

This report will allow market participants to better understand the growth factors and global takaful opportunities, and at the same time provide takaful practitioners with insights into the underlying issues and challenges facing the industry.

We hope you find the report useful and illuminating.

Safder Jaffer Milliman (Middle East & Africa) Farzana Ismail Milliman (Kuala Lumpur) Lindsay Unwin Milliman (London)



Introduction

The purpose of this report is to examine the growth of the global takaful market from 2012 to 2015, and in particular discuss changes in Gross Written Contributions ("GWC") during this period along with other emerging market trends apparent by the end of 2015. We also provide an update on recent regulatory changes in the key regions selling takaful business and discuss the opportunities and challenges takaful providers are likely to face in the next few years.

The total global takaful contributions were estimated at US\$ 14.9 billion in 2015, representing a double-digit growth rate of 14% in 2015. This is based on takaful contributions in the following markets:

- South East Asia: Malaysia, Indonesia and Brunei
- GCC: Bahrain, Kuwait, Oman, Qatar, United Arab Emirates and Saudi Arabia
- Africa: Sudan, Egypt, Kenya, Gambia and Tunisia
- Others: Bangladesh, Pakistan, Turkey, Sri Lanka, Syria, Yemen and Jordan

This report is subject to the reliances and limitations outlined in Appendix A. Our analysis is based on publicly available data, including company financial statements, regulatory reports and industry reports. Further details are provided in Appendix B.



Global Market Trends

The performance of the general and family takaful industries is shown below:

Sector	Market share	Estimated revenues	Growth rate in 2015
General Takaful	83%	US\$ 12.3 bn	17%
Family Takaful	17%	US\$ 2.6 bn	(1)%*
Total Takaful	100%	US\$ 14.9 bn	14%

Source: Milliman analysis of industry data

(*) Note: This is largely due to the effects of the depreciation of local currencies relative to the US dollar. In local currency terms, the Family Takaful industry in most countries continue to exhibit positive growth rates.

It is noted that while growth in total Gross Written Contribution¹ ("GWC") or Gross Written Premiums ("GWP") is a common measure for growth for the general takaful industry, we have adopted the same approach for the family takaful industry as an approximation due to the lack of publicly available data on new business annualized premium equivalent ("APE")² or annualized contributions equivalent ("ACE"), which is the more commonly acceptable approach to analyse the growth of family takaful business. Where new business ACE is available, this has been shown in the report.

As shown in the table above, we have analysed the takaful industry in US dollar, based on the exchange rates at the end of each year. We recommend that the growth rates in GWC determined in US dollar terms to be considered with care as otherwise it can be potentially misleading, due to the impact of currency exchange movement. Several of the local currencies in the South East Asian market, particularly Malaysia and Indonesia, have depreciated significantly in recent years relative to the US dollar. Allowing for the negative impact of forex movements in the analyses within this report thus illustrated a negative growth in the takaful industry in some markets, and a decreasing South East Asian market share in US dollar terms. However, in reality, these takaful markets actually continue to demonstrate strong growth in local currency terms. The impact is more prominent in the family takaful markets, as South East Asia contributes significantly to the global family takaful industry.



¹ In this report, we have used the term "premium" and "contribution" interchangeably. It is noted that in certain takaful markets, contributions is more commonly used, whereas in other markets, the term premium is adopted.

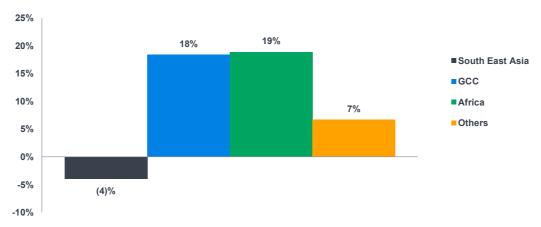
² Annual Premium Equivalent is defined as 100% regular premiums plus 10% of single premiums written in the financial year.

Regional Market Trends

By region, the total takaful industry in the Gulf Corporation Council ("GCC") markets grew by a Compound Annual Growth Rate ("CAGR") (2012-2015) of 18% whereas South East Asia markets decreased by a CAGR of (4)% in the same period due to the depreciation of local currencies relative to the US dollar witnessed in recent years. However there continues to be positive growth in the South East Asia markets in local currencies terms³.

Africa demonstrated significant growth with a CAGR of 19% in 2012-2015 for the total takaful market, and given the large uninsured population, we note that there is a large market potential for takaful in this region. Specific takaful regulations have been introduced in several African countries such as Kenya, with Tanzania expecting to issue its takaful regulations in the near future, indicating the commitment to grow the industry by these African governments.

The CAGR of GWC by region is shown below.





³ Based on growth rates in local currencies observed in individual countries considered in this report.

⁴ In Saudi Arabia, life insurance business is referred to as Protection & Savings (P&S)



The largest market is the Kingdom of Saudi Arabia ("Saudi Arabia"), as the entire market is defined as shariah-compliant, with GWP of US\$ 9.7 billion in 2015. The market in Saudi Arabia is predominantly general insurance, with limited life⁴ insurance business.

The GCC markets continue to dominate the general takaful industry whereas South East Asia markets continue to dominate the family takaful industry. The GCC has an overall market share of 88% of the global general takaful market in 2015 in terms of total contributions. The general takaful industry in the GCC markets exhibited the highest growth globally with a CAGR of 19% (2012-2015).

The local markets in South East Asia demonstrated negative growth in the family takaful industry of (13)% in 2015. Malaysia is the largest family takaful market globally and demonstrated a growth rate of (16)% in 2015 for its family takaful market in terms of GWC. However in local currency terms, Malaysia continues to demonstrate a positive growth rate of 4% in 2015 for its family takaful market, thus demonstrating the impact of the significant depreciation of the Malaysian Ringgit relative to the US dollar.

In the GCC, family takaful achieved a record growth of 34% in 2015 in total contributions, mainly as a result of material growth in the UAE driven by the introduction of compulsory health insurance in the Emirates of Dubai. There are significant growth opportunities for family takaful in the GCC region given the current low penetration rates, particularly those witnessed for family takaful.



Regulations

Malaysia continues to lead the takaful industry in terms of takaful regulations, with the country being the first market in the world to implement a Risk-Based Capital ("RBC") framework for takaful. There is also a requirement for companies to disclose its wakalah fees in its sales illustrations for transparency. Although the level of wakalah fees are not explicitly regulated, companies are required to ensure that the contributions allocated to the risk fund (i.e. net of wakalah fees) and thus the risk fund itself, are expected to be sufficient throughout the contract term, thus minimizing the risk of qard (i.e. interest free loan arising). Nevertheless, there are strong regulations in place in relation to qard, such as the requirement of takaful operators to provide qard when the takaful fund is in deficit. In addition, companies are required to develop an internal policy for the treatment of qard, to ensure the long term sustainability of the fund and fair treatment to consumers.

In the GCC markets, the treatment of qard is largely in line with Accounting and Auditing Organisation for Islamic Financial Institutions ("AAOIFI") reporting standards. In Bahrain, qard is required to be repaid within five years or subsequently written off. Bahrain also requires companies to disclose the level of wakalah fees in its sales illustrations, similar to Malaysia.

In some other markets, regulations on the treatment of qard and wakalah fees are largely non-existent. The absence of regulations on wakalah fees are likely to result in qard arising due to the lack of sound technical underwriting. Many regulators in the GCC are now enhancing their regulations toward global standards, with a focus on better more robust governance and providing protection to consumers.



Opportunities and Challenges

Regulatory evolution & short term slowdown in growth - A slowdown in growth is expected in the short term due to tightening of regulations across all jurisdictions, particularly in the GCC, as regulators increase their focus on consumer protection and the implementation of RBC requirements. In South East Asia, new regulations such as the implementation of the Life Insurance and Family Takaful ("LIFE") Framework and the requirements to split composite companies by 2018 in Malaysia, and the requirement to spin-off⁵ takaful windows in Indonesia by 2024 are likely to change the market and product landscape, and spur various market activities. The regulatory evolution is expected to strengthen the industry overall and enhance its sustainability in the longer term.

Pressure on the overall profitability of the general takaful business – In the GCC, despite impressive top-line growth for general takaful operators, there is significant pressure on the overall profitability of these companies. A number of the takaful operators are facing the issue of perpetual qard⁶ given the poor quality of business written, with the key driver being the intense competition witnessed in the market where takaful operators compete against established conventional players for the same market space (particularly on compulsory lines such as motor and medical lines). As a consequence, many takaful operators are burning up capital and the worsening results provide little hope for imminent recovery.

However, the market in Saudi Arabia has witnessed significant improvement in profitability largely due to stronger regulatory requirements on sound technical underwriting, pricing and risk management.

Sustainability of pension schemes and retirement planning - In South East Asia, although there are funded retirement schemes (i.e. predominantly defined contribution schemes), these are currently being provided as a lump sum at retirement, thus giving rise to the lack of financial protection at older ages in view of longevity risk. There is a need to supplement and enhance the existing retirement product offering in the market, particularly with decumulation products, to mitigate the longevity risk.

In the GCC, there are concerns on the long-term sustainability of the state schemes which are often unfunded, particularly given demographic and economic pressures in the region. Hence, reforms in the pension landscape in the GCC region are likely to occur as current discussions on the sustainability of current schemes continue to be played out. There is recognition across the GCC countries of a dire need to invest for retirement. Concerted efforts are being made to enhance retirement savings via employer-funded and private-funded pension schemes in this region. This presents opportunities for the growth of family takaful to offer shariah-compliant retirement solutions in the region.

Given the lack of market penetration in most countries for family takaful, the need for retirement planning combined with an aging society would create an opportunity to grow the family takaful market in most jurisdictions.

⁶ Perpetual qard arises when the policyholder fund remains in deficit for a long period of time without any qard impairment or remedial action planned to reduce the qard.



⁵ The requirement in Indonesia to split their takaful or Syariah business into a separate entity (i.e. spin-off), within a period of 10 years (i.e. by 2024) or once the Syariah funds exceed more than 50% of all insurance funds held, whichever occurs earlier

Background

In the following section we consider the growth of the takaful industry over the last four years. Initially we describe the amount of, and growth in, Gross Written Contribution ("GWC") or Gross Written Premiums ("GWP") for the global takaful industry, combining family and general takaful business. We then provide a similar analysis separately for family and general takaful business. The information is provided at a further level of granularity for the following regions, South East Asia, GCC, Africa and Others. The countries that make up each of these regions are given below.

- South East Asia: Malaysia, Indonesia and Brunei
- BCC: Bahrain, Kuwait, Oman, Qatar, United Arab Emirates, and Saudi Arabia
- Africa: Sudan, Egypt, Kenya, Gambia, and Tunisia
- Others: Bangladesh, Pakistan, Turkey, Sri Lanka, Syria, Yemen, and Jordan

We draw your attention to three key assumptions that have been made in compiling the figures published in this report.

- I. Saudi Arabia adopts the cooperative model rather than the takaful model. We have included Saudi Arabia in our report as we have assumed that the entire market in Saudi Arabia is shariah-compliant.
- II. Throughout this report, we have analysed market growth in terms of GWC. It is noted that while this is a common measure for growth within the general takaful industry, the more typical approach within the family takaful industry is to use new business annualized premium equivalent ("APE") or annualized contribution equivalent ("ACE") as a measure for growth. However, we have used the GWC approach for the family takaful industry due to a lack of publicly available data on new business ACE. Where new business ACE is available, this has been shown in the report.
- III. In this report, we have performed the analysis by converting the local currencies in each of the markets listed above to US dollars, using the exchange rate observed at the end of each year. The exchange rates assumed in our analysis are shown in Appendix B. We recommend that the growth rates in GWC determined in US dollar terms to be considered with care as otherwise it can be potentially misleading, particularly since several of the local currencies in the South East Asian market, particularly Malaysia and Indonesia, have depreciated significantly in recent years relative to the US dollar. Allowing for the negative impact of forex movements in the analyses within this report thus illustrated a negative growth in the takaful industry (particularly for family takaful), and a decreasing South East Asian market share in US dollar terms. However, it is important to note that the takaful markets actually continue to demonstrate strong growth in local currency terms. For other markets, the exchange rate movement between the local currencies and US dollar has been stable, particularly since some of the local currencies in the GCC are pegged to the US dollar.

In this report, growth rates are expressed in terms of total GWC, unless otherwise stated. Some of the numbers presented in the tables in this report may not be additive due to rounding.

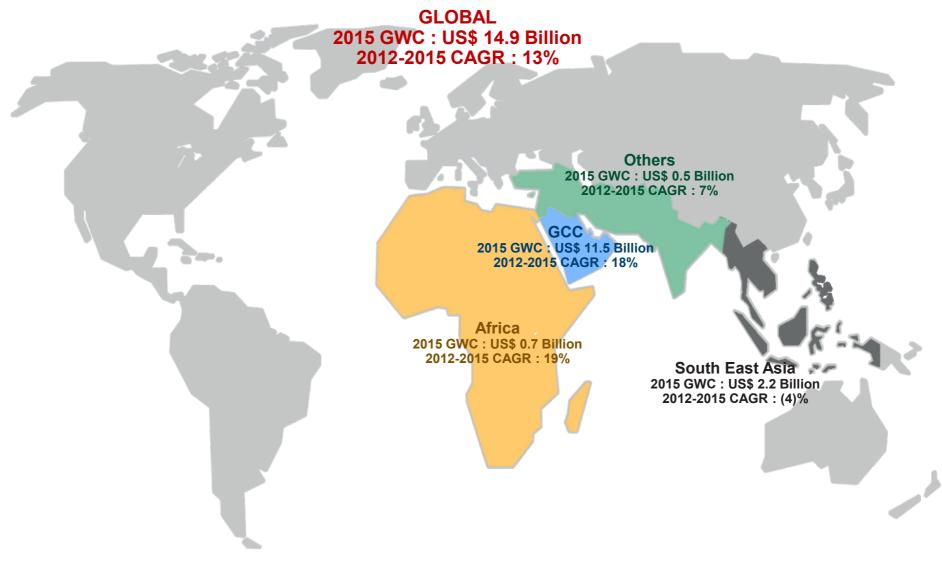


Section 1

The Global Takaful Market



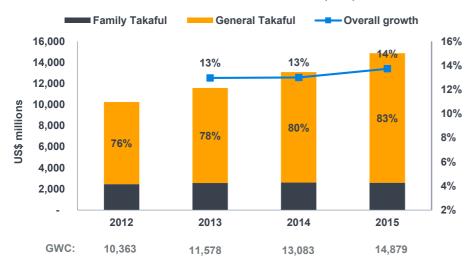
Global Takaful Market





Global Takaful Market Overview

- In 2015, global takaful GWC, comprising both family and general takaful, is estimated to be US\$ 14.9 billion. This represents a CAGR in worldwide takaful GWC of 13% between 2012 and 2015. Such exceptional growth levels are not usually witnessed within the conventional insurance industry and are in part due to the relative immaturity of the takaful market in many jurisdictions, along with sustained growth in the GCC countries and South East Asia.
- There is strong growth in the overall global takaful market, in the range of 13% to 14% per annum in total contributions in total contributions for the period 2012 2015. The split of the family and general takaful market in 2015 is approximately 17% and 83% respectively in 2015. General takaful recorded a higher growth of 17% compared to family takaful at (1)% globally in total contributions in 2015, in US dollar terms. In local currency terms, the major markets in the family takaful industry continue to demonstrate positive growth over the same period. Hence, it is clear that the majority of the growth, in absolute terms, is due to an increase in GWC for general takaful business (due to weakening local currencies). In local currency terms, there continues to be a moderate increase in GWC for family takaful business (due to market in the report, when family and general takaful are considered separately.
- The GCC dominates the market and exhibited a much higher CAGR, relative to the other regions of 18% for 2012 2015. Market growth in the GCC is largely driven by the general/non-life takaful market general/non-life takaful market.
- The GCC continues to dominate the global takaful market with a 77% market share (predominantly general takaful business), followed by South East Asia at 15% (predominantly family takaful business). Africa and the other remaining countries are relatively new to the takaful market and their GWC is small at US\$ 0.7 billion and US\$ 0.5 billion respectively (i.e. 5% and 3% of global takaful market share respectively), but these regions continue to demonstrate strong growth in 2015 in percentage terms given the relatively small starting GWC.



Global Takaful GWC and Growth (US\$)

Africa 5% South East Asia 15% GCC 77%



Percentage of Takaful GWC by Key Regions in 2015 (US\$)

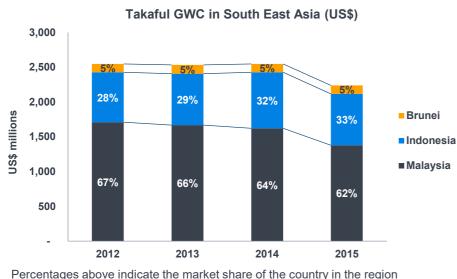
Global Takaful Market By Region

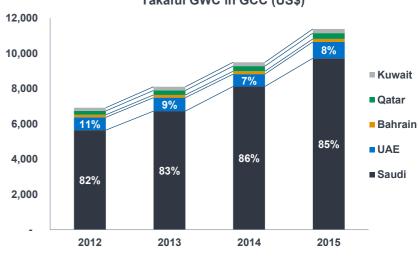
- As noted earlier, Malaysia and Indonesia have experienced a material depreciation of their local currencies relative to the US dollar. South East Asia recorded a growth rate of (12)% (with a GWC of US\$2.2 billion) in 2015.
- As shown in the figures below:
 - In South East Asia, Malaysia continues to be the largest takaful market with a 62% market share within the region, followed by Indonesia at 33% in 2015. Both the Malaysia and Indonesian markets demonstrated negative growth in 2015 of (15)% and (8)%, respectively in US dollars. In local currency terms, both the Malaysian and Indonesian takaful markets continue to demonstrate positive growth in 2015 of 5% and 3% respectively.
 - Saudi Arabia in the GCC continues to be the largest shariah-compliant market globally, with 97% of its business arising from general insurance business. The country exhibited a growth rate of 20% in 2015, and a CAGR (2012-2015) of 20%, thus exhibiting the highest CAGR in the GCC region for that period. Meanwhile, UAE exhibited the strongest growth in 2015 in the region at 32% driven by growth in the family takaful industry.

millions

US\$

We observe that the drivers of growth within each of these key regions are different, and hence we have analysed the growth trends separately for family and general takaful. Further insights on each of the family and general takaful market trends are discussed below in Sections 2 and 3 respectively.





Takaful GWC in GCC (US\$)

ercentages above indicate the market share of the country in the region

Percentages above indicate the market share of the country in the region

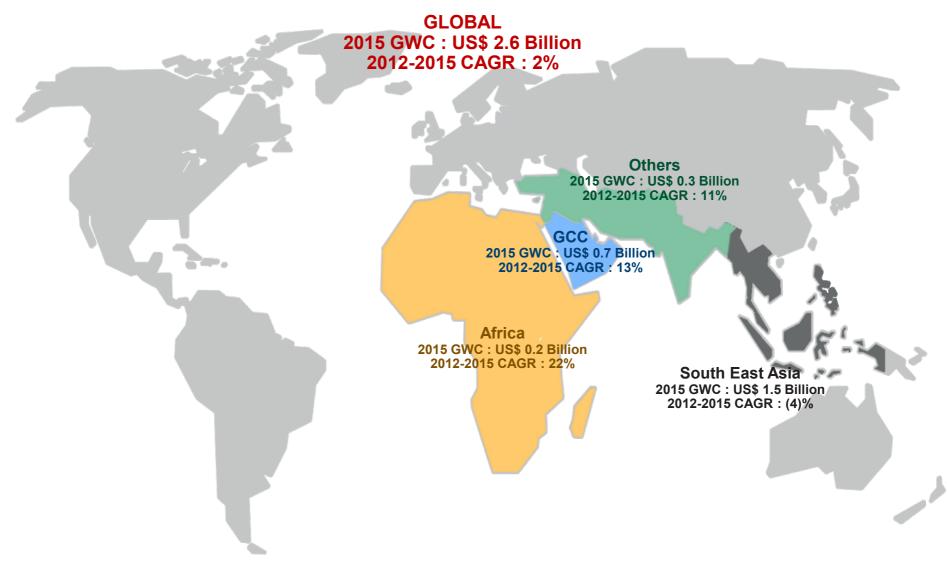


Section 2

The Family Takaful Market



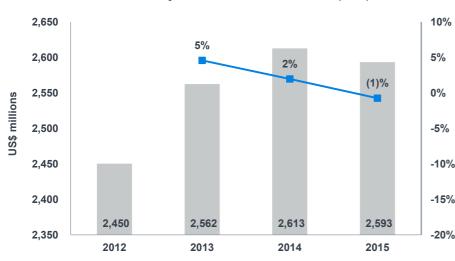
Global Family Takaful Market



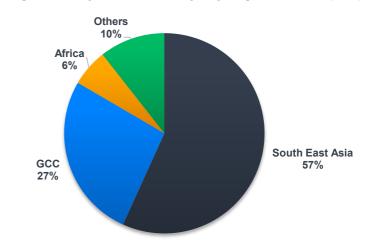


Family Takaful Overview

- Family takaful represents 17% of the global takaful market, with GWC of US\$ 2.6 billion in 2015. The industry exhibited a growth rate of (1)% in 2015 (compared to 2% in 2014) in US dollar terms, as illustrated below. However, in local currencies, most markets continue to exhibit positive growth rates in 2015. Similarly, the CAGR in US dollar over the period of 2012-2015 is 2%, but is much higher in local currency terms.
- The family takaful market is dominated by South East Asia, particularly Malaysia and Indonesia, with 57% of the global family takaful market share. Between 2012 and 2015, the region recorded a CAGR of (4)% with GWC of US\$ 1.5 billion in 2015 for its family takaful business. In 2015, the GCC region with a 27% of global market share recorded a GWC of less than half of that observed in South East Asia at US\$ 0.7 billion, but demonstrated a higher CAGR of 13% in the same period.
- Over the period of 2012 to 2015, Africa achieved the highest CAGR of 22%. This is not unexpected as takaful has only recently been introduced in that market and it has a relatively low level of GWC of US\$ 0.2 billion. Similarly, other countries such as Bangladesh, Pakistan and Turkey are also small contributors to the global takaful market with an aggregated GWC of US\$ 0.3 billion, but continue to exhibit strong growth with a CAGR of 11% during 2012 2015.
- As demonstrated by these high growth rates, particularly in the GCC, Africa and Other regions, these markets remain largely underpenetrated and thus there is significant opportunity to develop the family takaful market in these countries.



Global Family Takaful GWC and Growth (US\$)



Percentage of Family Takaful GWC by Key Regions in 2015 (US\$)



Family Takaful By Region

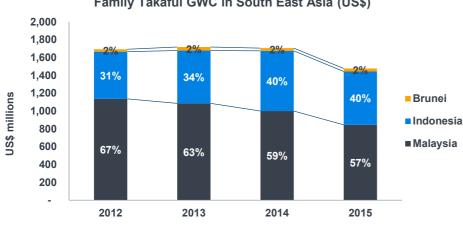
- Malaysia has the largest family takaful market globally with 33% of the market share (or 57% in South East Asia) and GWC of US\$ 0.8 billion in 2015. This represents a growth rate of (16)% in 2015. This is followed by Indonesia with a GWC of US\$ 0.6 billion and a growth rate of (11)% in 2015. In local currency terms, Malaysia continues to exhibit a positive growth rate of 4% in 2015.
- In terms of ACE, there is strong positive growth in Malaysia of 12% in 2015 in local currency terms. Further details are provided for Malaysia in the country analysis in Section 5. Comparable ACE figures are not available for Indonesia.
- Meanwhile, the family takaful market in the GCC is small, with Saudi Arabia and the UAE leading with a GWC of US\$ 0.28 billion and US\$ 0.27 billion respectively in 2015. both representing a market share of around 40% each in the GCC region in 2015. UAE demonstrated the strongest growth in 2015, due to the introduction of compulsory health insurance in the Emirates of Dubai. Further details are provided in the country analysis in Section 7. There is significant potential to grow the family takaful market in the GCC, given the low penetration levels, (which are described in more detail in Section 7), and the relatively small size of the industry in this region compared to South East Asia, for example. This will be particularly successful if the family takaful industry is able to develop a greater awareness amongst the target population on the importance and benefits of family takaful products.
- Given the ageing society and economic pressures observed in the region such as the fall in oil prices, there are concerns on the long-term sustainability of the level of benefits currently provided by the government via the state pension schemes. As such, there have been recent governmental efforts to reduce the level of subsidy, benefits and financial reliance on the state in the long term, opening up an opportunity in the insurance market.
- It is this lack of market penetration combined with potential state benefit reforms, which are expected to take place in the near future, that provide an ideal opportunity for the family takaful industry to develop appropriate shariah-compliant products for the population.

US\$ millions

100

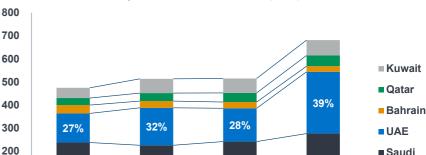
50%

2012



Family Takaful GWC in South East Asia (US\$)

Percentages above indicate the market share of the country in the region



44%

2013

Percentages above indicate the market share of the country in the region

47%

2014

41%

2015



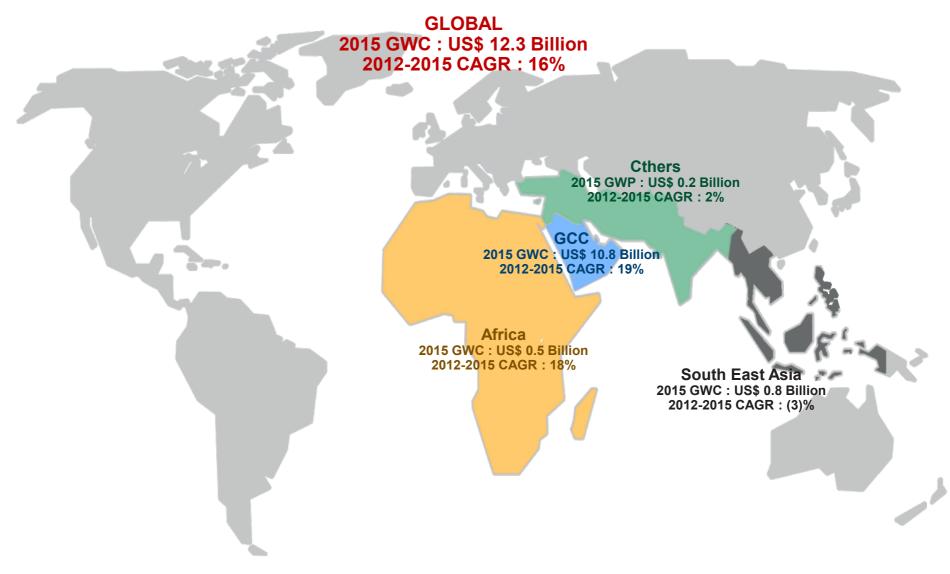


Section 3

The General Takaful Market



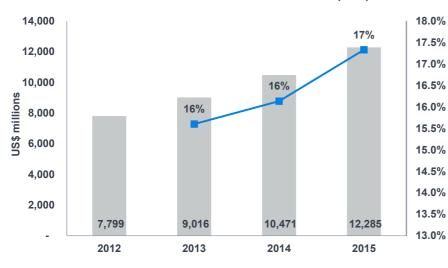
Global General Takaful Market



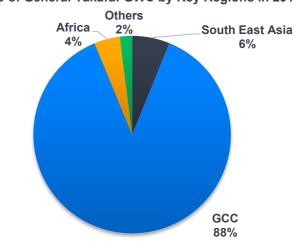


General Takaful Market Overview

- General takaful represents 83% of the global takaful market, with GWC of US\$ 12.3 billion in 2015, making up 94% of the total takaful market in the GCC and 44% of the total market elsewhere. The industry exhibited a growth rate of 17% in 2015 (compared to 16% in 2014).
- As shown in the pie chart below, the GCC not only made up 88% of global general takaful contributions in 2015, but also exhibited the highest growth with a CAGR of 19% (2012-2015).
- Outside of the GCC region, the size of the general takaful business is small. South East Asia achieved GWC of US\$ 0.8 billion in 2015, with CAGR of (3)% (2012-2015) in US dollar terms. In local currency terms, the South East Asia markets continue to demonstrate positive CAGR over the same period. The remaining other countries only recorded a GWC of US\$ 0.2 billion and a small CAGR of 2% between 2012 and 2015.
- In a manner similar to the family takaful industry, Africa recorded GWC of US\$ 0.5 billion and demonstrated double-digit growth rates over the period 2012 and 2015 with a CAGR of 18% for its general takaful business. Given the recent introduction of the takaful industry in Africa, there is also significant opportunity to grow the general takaful market in this region, as Africa has a large and underpenetrated market, with significant proportion of uninsured Muslims in the region.



Global General Takaful GWC and Growth (US\$)

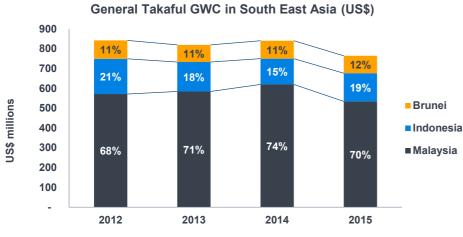




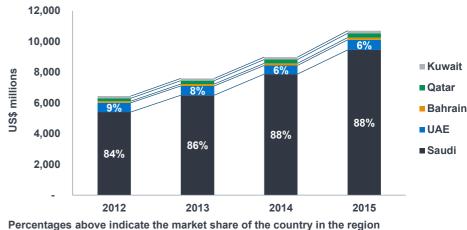


General Takaful Market Overview

- Within South East Asia, Malaysia has the largest general takaful market share in the region at 70% in 2015, with a GWC of US\$ 534 million. Malaysia exhibited a negative growth in its general takaful market with (14)% in 2015 in terms of total contributions in US dollars. In local currency terms, Malaysia continues to exhibit positive growth in its general takaful market with 6% in the same period. Indonesia recorded a GWC of US\$ 142 million in 2015 and a growth of 9% in 2015 in total contributions in US dollars. Similarly in local currency terms, Indonesia exhibited a higher positive growth of 22% in the same year.
- In the GCC, Saudi Arabia has the largest market share at 88% of the market, followed by UAE at 6% with a GWC of US\$ 9.5 billion and US\$ 0.7 billion respectively in 2015. Saudi Arabia and UAE exhibited the strongest growth in 2015, at 20% and 19% of total contributions respectively.
- In addition to Africa, there is significant opportunity to grow the general takaful market in South East Asia. There are large segments of Muslim populations who currently purchase conventional general insurance policies but will over time gravitate towards general takaful, if general takaful companies can compete with conventional companies in terms of price and services. Given similar levels of price and service, the general takaful "brand" will resonate with the Muslim population. In Malaysia, the general takaful business is typically written under a composite license and is small compared to its family takaful business. These composites will be required to split the licenses in 2018, which could prove to be a watershed moment from which either companies will fall by the wayside or emerge stronger and more serious competitors to conventional companies. In Indonesia, general takaful is largely non-existent despite the large size of Muslim population which further indicates the potential growth for serious general takaful players, particularly when companies are required to spin-off their takaful windows to standalone entities by 2024.







Percentages above indicate the market share of the country in the region

🗚 🚺 Milliman

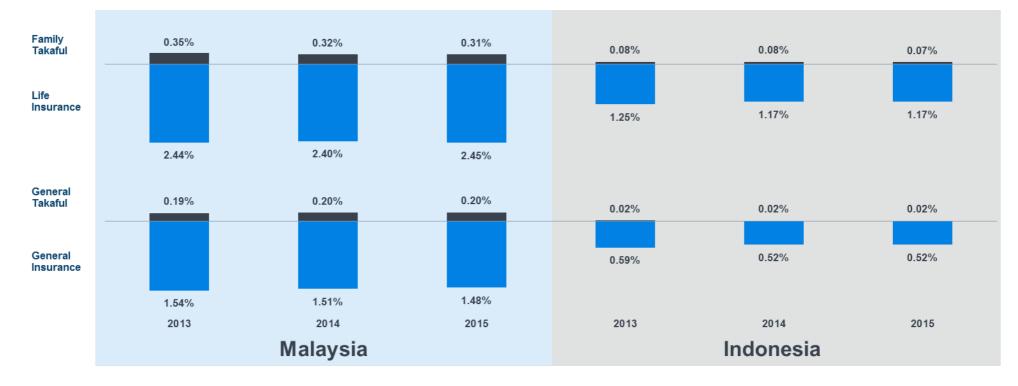
Section 4

Takaful Market Penetration



Market Penetration - South East Asia

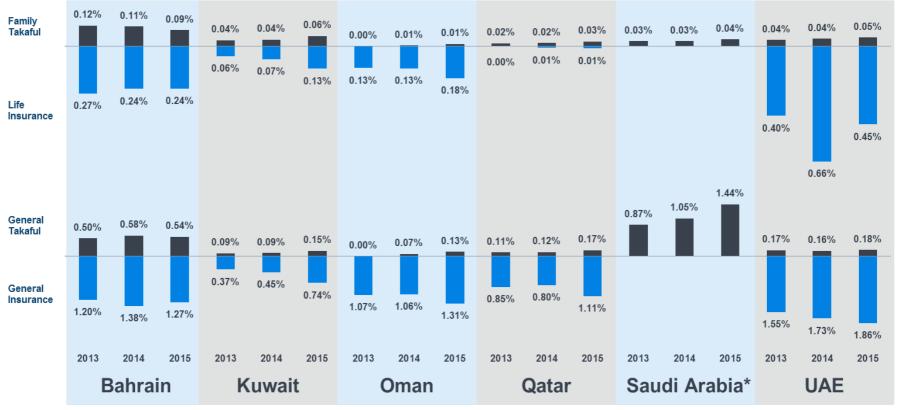
- Market penetration rate is a metric often used to indicate the level of development of the insurance sector within a given country. In our analysis, the rates are given separately for takaful and conventional insurance business, and further split between family and general takaful business. The penetration rate is defined as gross written premium ("GWP") or gross written contribution (GWC") as a percentage of gross domestic product ("GDP").
- In Malaysia and Indonesia, the life insurance and family takaful penetration rates are higher than that for general insurance and general takaful, respectively. For Malaysia, the market penetration rate for family takaful is fifty percent higher than that observed for general takaful. For Indonesia, the market penetration rate for family takaful is significantly higher at around four times more than general takaful. The lack of market penetration represents significant growth opportunity for the general takaful business in these markets.
- . Although the majority of the population in both markets is Muslim, the takaful penetration rate is much lower than the conventional insurance penetration rate, as current market penetration is primarily focused towards the more affluent sections of the society. Thus there are significant opportunities for takaful operators to increase the market penetration by targeting the needs of the predominantly Muslim mass market.





Market Penetration - GCC

- In contrast, in all of the GCC countries, life insurance and family takaful penetration rates are much lower than that observed for general insurance and general takaful. Similarly, the takaful penetration rates are much lower than the conventional insurance penetration rates. In addition, when comparing the 2015 penetration rates between family and general takaful in each of the GCC countries, the general takaful penetration rate is significantly higher than family takaful.
- Overall, the insurance penetration rate in the GCC is low. The introduction of the compulsory requirements for motor and medical lines had led to the increase in penetration rates witnessed in general takaful. However the family takaful market remains largely underpenetrated, primarily due to the lack of awareness amongst consumers and the generous state benefits provided in these markets. As most GCC markets are considering the long-term sustainability of some of these state benefits, the lack of takaful market penetration rate, particularly for family takaful, indicates the high potential growth opportunities in these (predominantly Muslim) markets, that are largely uninsured.



*Saudi Arabia is considered as 100% Shariah-compliant in line with the cooperative laws in the country.



Section 5

Financial Insights

Malaysia

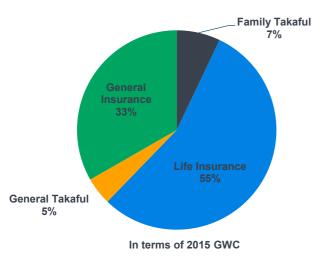




Takaful Industry Overview



- The market share of the takaful industry in Malaysia is 12% of total conventional insurance and takaful market in terms of total GWC in 2015, as can be seen in the graphs below.
- The Malaysian Ringgit has depreciated relative to the US dollar by 7%, 6% and 19% in 2013, 2014 and 2015, respectively. Hence, we observed a decline in the takaful industry in Malaysia when analysing the growth in US dollar terms, thus masking the true underlying growth trends. In reality, the Malaysian takaful market continues to demonstrate positive growth rates in local currency terms. Thus growth has been determined in local currency terms. The GWC (in Malaysian Ringgit terms) has been growing each year since 2011, and the total industry demonstrated a growth rate of 5% in 2015.
- There are eight composite companies (i.e. selling both family and general takaful business) and three pure family takaful operators in Malaysia. The composite players are required to split into separate family and general entities by 2018 in line with regulatory requirements.
- The family takaful market dominates the Malaysian takaful industry, and has accounted for around 60% of the market share for the past five years. It has benefited from the growth of Islamic banking in Malaysia, whereby the takaful industry has been able to grow in tandem (e.g. the growth of Islamic mortgage business has enabled the growth of credit-related takaful business).



Total Conventional Insurance and Takaful Industry

Family Takaful General Takaful ----- Overall growth 7 25% 6 22% 20% **RM** billions 5 15% 4 61% 65% 62% 3 67% 10% 63% 2 5% 5% 1 3% 0% 0 2011 2012 2013 2014 2015 GWC : 4.29 5.22 5.48 5.67 5.94

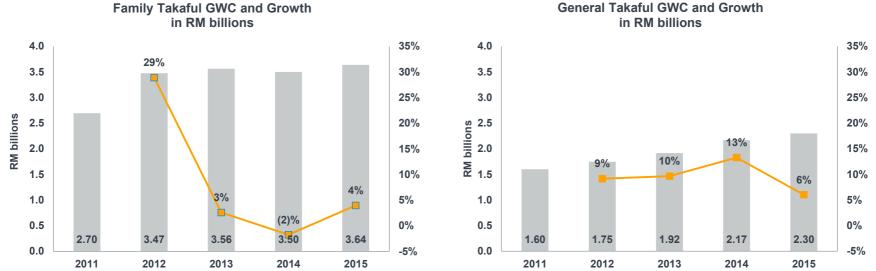
Takaful GWP and Growth in RM billions



Takaful Industry Growth Trend



In 2015, the market continued to record positive growth in both family and general takaful in Malaysian Ringgit terms, at 4% and 6% respectively, although as the Malaysian н. market matures growth has reduced from the high levels witnessed in 2012.

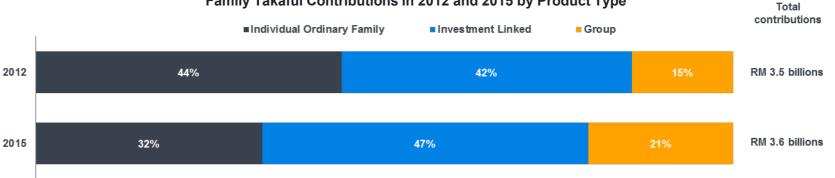




Family Takaful Overview



- The top four market players in the family takaful market in Malaysia are Etiqa Takaful, Prudential BSN Takaful, Syarikat Takaful Malaysia Berhad ("STMB Malaysia") and Takaful Ikhlas. In terms of gross written contributions, they jointly make up a market share of more than 70% in 2015 for family takaful.
- Credit-related products, in particular single premium mortgage and group credit business, make up a substantial portion of the total family takaful market in Malaysia due to the growth of Islamic finance and the support of government-related business.
- Unit-linked business has been expanding strongly over the years and now dominates the market, from 42% in 2012 to 47% in 2015, as shown in the graph below. New business sales are mainly dominated by unit-linked business due to the lower capital requirements under the Risk-Based Capital Framework for Takaful Operators ("RBCT"), which was implemented in 2013. Meanwhile, traditional ordinary life/family takaful business has been reducing in terms of new business sales, from 44% in 2012 to 32% in 2015, due to higher capital requirements of such products under RBCT.



Family Takaful Contributions in 2012 and 2015 by Product Type

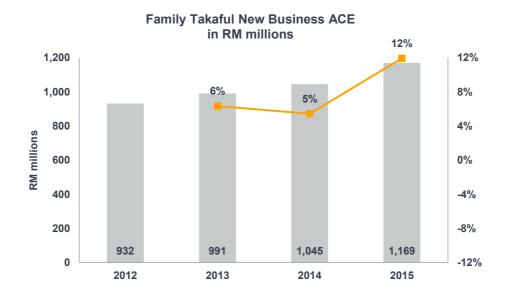
- Medical business is also a popular product type (either as riders to unit-linked business or sold on a standalone basis), given customers' preference for private healthcare in Malaysia. There is also a trend towards universal life products, with Sun Life Takaful Malaysia ("Sun Life Takaful") being the first takaful company to offer a universal life takaful product in Malaysia.
- For the family takaful market, sales via agency continue to dominate, followed by an increasing proportion of sales via bancatakaful. With the recent phased implementation of the Life Insurance and Family Takaful (LIFE) Framework, the regulators are encouraging the growth of non-agency channels including bancatakaful and direct channels.



Family Takaful New Business Growth Trend



- For the family takaful industry, in terms of new business annual contribution equivalent ("ACE") (i.e. 100% regular contribution plus 10% of single contribution for new . business), the market has been growing each year since 2012, exhibiting a strong growth rate of 12% in 2015.
- Various multinationals are keen to enter the Malaysian takaful market, which requires them to secure a takaful license in Malaysia. Zurich recently acquired a 100% stake in . MAA Takaful (now Zurich Takaful) in 2016. As reported in the market news, in late 2016, HSBC Amanah Takaful started negotiations with Allianz Malaysia, whereby Allianz Malaysia is seeking to acquire up to 100% equity interest of HSBC Amanah Takaful.

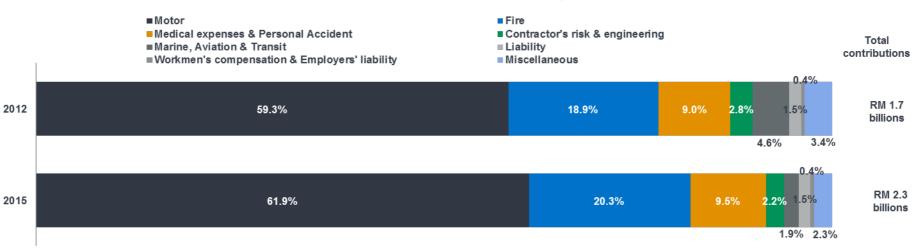




General Takaful Overview



- In terms of GWC, Etiqa Takaful has the largest market share of almost 50%, followed by STMB Malaysia, MAA Takaful (now Zurich Takaful) and Takaful Ikhlas. These four companies jointly hold approximately 90% of the general takaful market share in Malaysia.
- All companies tend to focus their business on motor and fire (at least 65% of the business portfolios for most companies are in these two lines of businesses), except for Sun Life Takaful which focuses on personal accident (making up around 80% of its general takaful business). An analysis of the lines of business is shown below.
- The main distribution channel for general takaful business in Malaysia is agency, followed by bancatakaful and direct marketing.



General Takaful Contributions in 2012 and 2015 by Line of Business



General Takaful Financial Ratio Analysis



The financial ratios below are calculated based on the financial statement of companies selling general takaful business in Malaysia:

Composite takaful operator average ratios*	2013	2014	2015
Average commission ratio (% of GWC)	13%	12%	13%
Average expense ratio (% of GWC)	14%	14%	16%
General takaful industry average ratios	2013	2014	2015
Average reinsurance ratio (% of GWC)	27%	28%	26%
Average claim ratio*	53%	49%	52%

(*) Note: Claim ratio is defined as net claims as a percentage of net earned contributions

- It is noted that financial ratio analysis tends to be more commonly used in the general takaful industry given the short-term nature of the business. Financial ratio analysis may be less appropriate for family takaful business given the long term nature of the business, and thus measures such as profitability margins are more commonly used.
- For composite takaful players, expenses and commission are not segregated between family and general takaful business in the financial statements of the takaful operators.
- In Malaysia, the commission rates are regulated by product type and distribution channel. The average commission ratio is 12% 13% between 2013 and 2015. The expense ratio is relatively stable at 14% 16% for the same period. However, these figures may not fully reflect the general takaful industry since we are unable to segregate the figures between family and general takaful business. In particular, as composites, the general takaful business are able to leverage on the cost-savings achieved from the economies of scales arising from the combined family and general takaful businesses, thus demonstrating a lower expense ratio compared to a standalone family or general takaful entities.
- The retakaful ratio for general takaful business is around 26% in 2015. For general takaful, the industry claim ratio climbed in 2015 due to higher net claims incurred in Motor Class and Marine, Aviation & Transit Class.
- We are unable to determine the average profit margin for general takaful business given that we are unable to segregate the commissions and expense ratios. However it is noted that the average profit margin is likely to differ by different class of business (e.g. fire business is typically more profitable than motor business in Malaysia). In addition, the industry is experiencing challenges with the management of claim ratios for medical business, given rising medical inflation cost in the market.



Opportunities and Challenges



The takaful market in Malaysia is expected to grow, given the following opportunities:

- Continuing government support to grow the sector by implementing robust regulations, increasing public awareness and providing suitable assets for investment.
- Industry players developing innovative takaful products (e.g. universal life products).
- Opportunity in the retirement saving space (e.g. accumulation and decumulation retirement products which provide regular income at retirement ages, to
 provide financial protection against longevity risk).

Nevertheless the takaful industry is also expected to face the following challenges:

- Challenge to grow the general takaful business to service the minimum paid-up capital of RM100 million (circa US\$23 million), given the requirement to split composites by 2018.
- Limited product innovation and differentiation relative to conventional counterparts.
- Challenges with unit-linked business, given the upcoming implementation of the Minimum Allocation Rate outlined in the LIFE Framework which is likely to require companies to reconsider their product design.
- High capital requirement for takaful companies despite takaful having lower levels of guarantees, thus making it challenging to compete with conventional companies given the lack of economies of scale for most takaful operators.
- The continuing issue of the lack of skilled human resource, particularly with talent drain occurring across the industry.



Section 6

Financial Insights

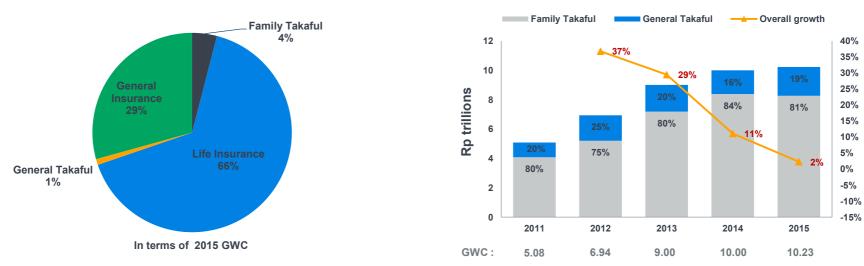




Takaful Industry Overview



- The size of the Syariah⁷ business or takaful market (as a percentage of the total insurance and takaful market) in Indonesia has increased from 3.6% in 2011 to 5.0% in 2015, in terms of total gross written premiums, as shown in the graphs below.
- The Indonesian Rupiah has depreciated by 30% relative to the US dollar between 2012 and 2015. Hence, we observed a negative growth rate in takaful industry when analysing the growth in US dollar terms, thus masking the true underlying growth trends. In reality, the Indonesian takaful market continues to demonstrate positive growth rates in local currency terms as described below.
- Based on the Indonesian Rupiah, the takaful industry continues to exhibit positive growth but at a decreasing rate in terms of GWC in recent years, with only 2% in 2015, as shown below. This is mainly driven by the slow growth in the family takaful market. There is no publicly available information of new business ACE which is the typical measure of market growth and market share for life insurance and family takaful business. Hence, we have adopted GWC as an indicative measure of growth in our analysis. The family takaful market continues to dominate the general takaful market.
- As of December 2015, there are five fully-fledged family takaful operators, and 19 family takaful windows. For general takaful, there are three fully-fledged general takaful operators and 25 general takaful windows. There are also three retakaful windows in operation. The numbers of takaful operators in the Indonesian market have been increasing in recent years.



Total Conventional Insurance and Takaful Industry

⁷ The market is referred to as Syariah business in Indonesia. For simplicity, we have referred to the Syariah business in Indonesia as takaful.

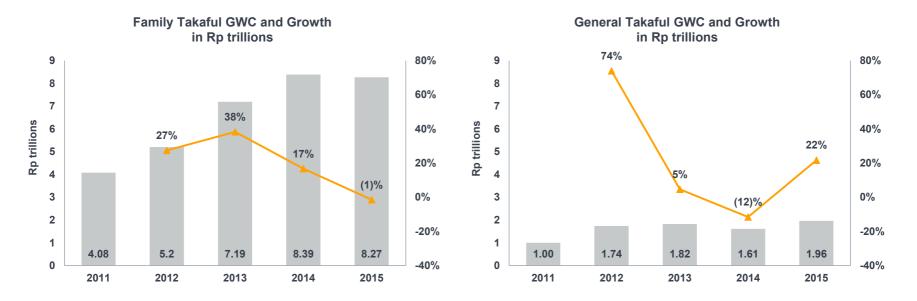


Takaful GWP and Growth in Rp trillions

Takaful Industry Growth Trends



- The family takaful market declined with a negative growth of (1)% in 2015 due to the decrease in unit-linked new business sales. The general takaful market's slow growth and negative growth in 2013 and 2014 of 5% and (12)% respectively may have been driven by a slowdown in automotive sales in recent years as a result of a slowing economy, high inflation triggered by several subsidized fuel price/policy reforms, and weak commodity prices. There was a recovery in the general takaful market in 2015 with a strong growth of 22%.
- There is an expectation that the latest regulation on requiring the spin-off of Syariah windows (i.e. the split of Syariah units from the conventional insurance companies into a separate standalone entity) may spur the market activity in the future. Based on market reports, as at the date of this report, several companies with a sizeable Svariah business have already submitted their application to spin-off their Svariah units. Three companies namely Jasindo Svariah, Reindo Svariah and Bumiputera Svariah have spun-off to become separate entities, while PT Asuransi Jiwa Manulife Indonesia and PT Asuransi Jiwa Recapital Indonesia are reported to have initiated the process to spin-off their Syariah units.
- It is unlikely that most of the existing companies will have sufficient Syariah business to meet the immediate separation condition. Therefore, they are more likely to choose н. to make use of the full 10 years to plan for the spin off and to grow Syariah business to a sufficient size such that it can support the higher capital requirements and operational expenses of the separation. However, some companies may adopt a strategy of an early spin-off to gain the first-mover advantage.





Overview of Family and General Takaful Market

Family Takaful

- The top three family takaful players are Prudential Life Assurance, AIA Financial and Asuransi Allianz Life Indonesia, all of which operate via windows. These companies made up a market share of more than 70% in 2015 for the family takaful industry in Indonesia in terms of total contributions. Based on the Financial Services Authority (OJK) report, a large proportion of the new business by these top three operators are on unit-linked products, which has been a major factor driving the growth in the Indonesian family takaful sector.
- The key distribution channel in this market is predominantly agency⁸. Companies are also considering leveraging on the existing banking networks as a more efficient means of distribution, however Islamic banking in Indonesia is small compared to conventional banks in terms of assets.
- We observe that AIA Financial has increased its market share significantly from 2% in 2010 to 24% in 2014 in terms of total contributions⁹, thus overtaking AXA Mandiri Financial. This is attributed to the long-term bancassurance partnership between AIA and Bank of Central Asia (BCA) which was extended in 2011 for both conventional and takaful segments. BCA is perceived to have more affluent customers than other banks in Indonesia.

General Takaful

- The top three players for the general takaful sector are Asuransi Astra Buana, Asuransi Takaful Umum and Asuransi Adira Dinamika. These companies make up around 50% of the market share for general takaful industry in Indonesia.
- The key lines of business of general takaful in Indonesia are motor, personal accident, health and property.
- For general takaful in Indonesia, the retail business lines are predominantly sold via agency force and the commercial business lines are predominantly sold via brokers.

⁸ Islamic finance news roundtable <u>http://islamicfinancenews.com/contents/roundtables/indonesia/Indonesia.pdf</u>



⁹ BAPEPAM and OJK report

General Takaful Financial Ratio Analysis



The financial ratios below are calculated based on the financial statements of the companies selling general takaful business in Indonesia:

General takaful industry average ratios	2013	2014	2015
Average reinsurance ratio (% of GWC of tabarru fund*)	10%	11%	11%
Average claim ratio**	56%	51%	41%
Average commission ratio (% of GWC of tabarru fund*)	16%	19%	19%
Average expense ratio (% of GWC of tabarru fund*)	12%	15%	15%
Average return on equity	7%	9%	8%

(*) Note: GWC used in calculating financial ratios are the gross contributions from the tabarru fund based on data extracted from Laporan Keuangan (Financial Statement). Total GWC is not publicly available. Estimates are based on limited data and should be read with caution.

(**) Note: Claim ratio for Indonesia is defined as net incurred claims as a percentage of net earned contributions from the tabarru fund

- In Indonesia, there is a clear segregation of financial ratios between family and general takaful business reported in the financial statements of the takaful businesses. It is noted that the financial analysis for Indonesia is not comparable with the financial analysis shown for other jurisdictions, as the ratios are expressed as a percentage of GWC from the tabarru fund, instead of total GWC.
- The retakaful ratio for general takaful in Indonesia is stable at around 11%. The commission ratios for general takaful have remained largely stable at 19% for the past two years increasing from 16% in 2013. Similarly, the average expense ratios have increased from 12% in 2013 and have remained at 15% between 2014 and 2015. There is a decreasing trend in the claims ratio from 56% in 2013 to 41% in 2015.
- The average profit margins (i.e. net profit arising as reported in the financial statements, as a percentage of GWC of tabarru fund) for general takaful is in the range of 16% to 18% between 2013 and 2015. For the same period, the return on equity for general takaful business in Indonesia is in the range of 7% to 9% p.a. between 2013 and 2015.



Opportunities and Challenges



We believe there are significant opportunities to grow the takaful industry in Indonesia, as outlined below:

- Large Muslim population at 207.2 million (i.e. 87% of the population)¹⁰, combined with expected good GDP growth rate indicating future growth potential.
- Low penetration rate, signifies potential growth opportunities, particularly within takaful.
- Efforts by the regulators, takaful players and the Syariah council to develop market awareness.
- Development of a more robust and hamonised set of regulations for the dual conventional and takaful industry, and the development of more robust guidelines for takaful.
- The requirement to split their Syariah business into a separate entity (i.e. spin-off), within a period of 10 years (i.e. by 2024) or once the Syariah funds exceed more than 50% of all insurance funds held, whichever occurs earlier.

However, the takaful industry in Indonesia is expecting to face the following challenges:

- Lack of political will or support to grow the takaful business (e.g. compared to Malaysia).
- Lack of public awareness of takaful / insurance as a financial protection tool.
- Based on industry reports, the lack of commitment by the management to grow takaful, as there is typically a lower return on equity ("ROE") underlying takaful business compared to that achieved with conventional insurance business.
- Distribution challenge given the large geographical spread.
- Lack of product innovation and differentiation, as currently the takaful players tend to offer similar products to conventional insurance such as unit-linked business. This may not meet the needs of the lower income group, which are largely underpenetrated.
- Lower returns are typically observed underlying takaful business as compared with that achieved for conventional insurance products. This makes conventional insurance more attractive to consumer segments whose purchasing decisions are based on the price and associated expected returns of a product.
- Lack of skilled human resource.



¹⁰ Statistics Indonesia, Population Census 2010

Section 7

Financial Insights GCC countries





GCC (Excluding Saudi Arabia) **Overview**

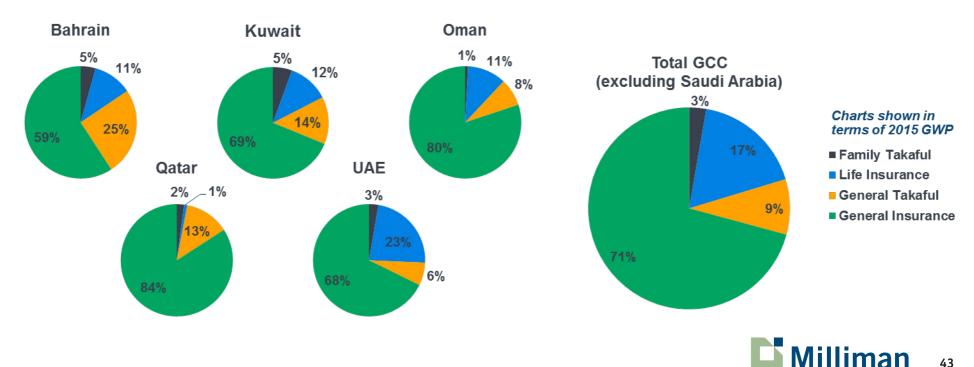


43

Note that in this section, Saudi Arabia is considered separately given that it adopts a cooperative structure rather than takaful, as well as the country being the largest shariahcompliant market in the world.

- For the total GCC market (excluding Saudi Arabia), the takaful market comprises 12% of the total insurance and takaful market, as shown in the graphs below.
- The general takaful dominates the region, with 76% of the total takaful market.
- There are a large number of insurance and takaful companies in operation in the GCC markets (excluding Saudi Arabia), in excess of 200 companies in 2015. The number of conventional insurance companies is significantly higher than the number of takaful companies in this region (circa four times more in total).

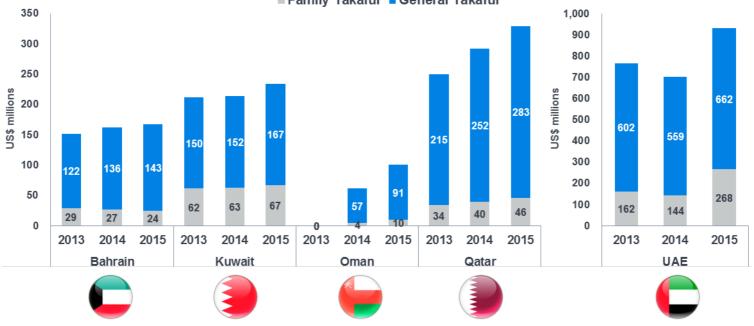
Country	Bahrain	Kuwait	Oman	Qatar	UAE	Total
Number of conventional and takaful companies in 2015	36	36	23	13	60	168
Number of takaful companies in 2015	6	13	2	6	12	39



GCC (Excluding Saudi Arabia) Growth Trend



- As shown in the graphs below, UAE is the largest takaful market in terms of GWP among these GCC countries (excluding Saudi Arabia).
- All these countries shown exhibited positive growth in 2015 in the range of 3% to 32% in terms of total contributions, with UAE demonstrating the highest growth and Bahrain demonstrating the lowest growth rate.
- The strong growth in UAE in 2015 is largely driven by the introduction of compulsory health insurance in the Emirates of Dubai. It is noted that in most GCC countries, including the UAE, health insurance can be classed as either family or general takaful business. However, excluding health insurance business, the size of the family takaful business remains insignificant (i.e. currently 3% of the market share in 2015 in terms of GWC).
- Similarly, the general takaful industry in the GCC markets is predominantly driven by the compulsory lines such as motor and medical.



Takaful GWP in US\$ millions Family Takaful General Takaful



GCC (Excluding Saudi Arabia) Financial Ratio Analysis



The financial ratios below are calculated based on companies' financial statements:

General takaful industry average ratios	2013	2014	2015
Average reinsurance ratio (% of GWC)	44%	42%	43%
Average claim ratio*	64%	73%	86%
Average commission ratio (% of GWC)	11%	11%	12%
Average expense ratio (% of GWC)	11%	17%	15%
Average return on equity	3%	3%	1%

(*) Note: Claims ratio is defined as net incurred claims as a percentage of net earned contributions

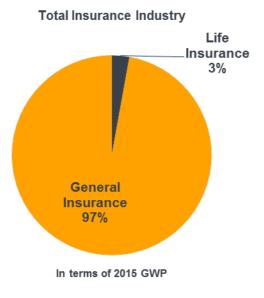
- In the GCC (except Saudi Arabia), there is a clear segregation of financial ratios between family and general takaful business reported in the financial statements of the takaful businesses.
- The commission ratio is around 11% 12% for general takaful businesses, and the expense ratios have increased in recent years from 11% to around 15%. These expense ratios levels are similar to those observed for composite companies in Malaysia.
- The average claim ratio for general takaful market has been gradually increasing from 64% in 2013 to 86% in 2015. It is noted that the average claim ratio for the general takaful market in the GCC region is significantly higher than those observed in Malaysia. The worsening claims ratios have put pressure on the profitability of the takaful operators, with several companies experiencing a perpetual qard phenomena in the market. The worsening loss ratios is attributed to a range of factors, with the key driver being the intense competition witnessed in the market where takaful operators compete against established conventional players for the same market space (particularly on compulsory lines such as motor and medical lines). Poor risk management is also another factor that has contributed to worsening results within the general takaful sector.
- Correspondingly, with rising claims ratio, the average profit margin (i.e. net profit as a percentage of GWC) of general takaful businesses has dropped from 6% in 2013 to 2% in 2015. The return on equity has also dropped from 3% to 1% within the same period. New regulatory requirements in UAE which have enhanced the technical provisions have also put further downward pressure on the profitability of the general takaful businesses.

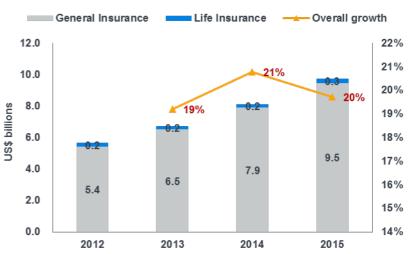


GCC - Saudi Arabia Overview



- In 2015, there were 34 insurance companies operating in Saudi Arabia, with the top three companies contributing to around 50% of the market share in terms of total premiums.
- Saudi Arabia is predominantly a general insurance market. The life insurance business contributed only 3% to the total premiums in 2015 (the life insurance market share has in fact fallen from 6% in 2010), as shown in the graphs below.
- The Saudi Arabian takaful market is unique due to the following two aspects:
 - > 100% of its insurance market is shariah-compliant and is written in line with the cooperative laws in the country. For the purpose of this report, we have included this market as part of the global takaful market.
 - > In terms of shariah-compliant market, the market size in Saudi Arabia is the largest in the world, with a GWP of US\$ 9.5 billion in 2015.





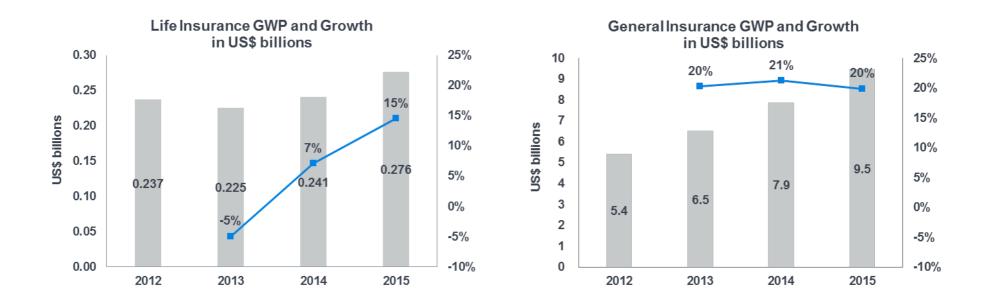




GCC - Saudi Arabia Growth Trends



- The GWP of general insurance business in Saudi Arabia has been growing significantly in recent years, achieving a tremendous growth of 20% in 2015, with a GWP of US\$ 9.5 billion. This market is the largest (shariah-compliant) general insurance market in the world.
- The GWP of the life insurance business has also achieved a good growth of 15% in 2015, however the market size is significantly smaller when compared with the general insurance business, given the generous state benefits provided which drives down the demand for life insurance business.





GCC - Saudi Arabia Financial Ratio Analysis



The financial ratios below are calculated based on companies' financial statements and industry reports:

Insurance industry average ratios	2013	2014	2015
Average reinsurance ratio (% of GWP)	27%	20%	17%
Average claim ratio*	93%	82%	80%
Average commission ratio (% of GWP)	6%	6%	6%
Average expense ratio (% of GWP)	12%	11%	12%
Average return on equity	(15)%	7%	7%

(*) Note: Claims ratio is defined as net incurred claims as a percentage of net earned contributions

- The financial ratios above are based on a consolidated market for both life and general insurance business. General insurance dominates the Saudi Arabia market and the size of the life market is very small. As such, it is challenging to obtain credible and meaningful ratios for life business only, and therefore the financial ratios are analysed on a consolidated basis.
- As shown in the table above, the commission ratios and expense ratios are generally stable over the years at 6% and 12% respectively. The average commission ratios are around 50% lower than those witnessed in other markets, this is most likely to be as a result of the regulations on commissions in Saudi Arabia. In addition, it is noted that the expense ratios are lower when compared to other markets (e.g. Malaysia) given the large size of general insurance business in Saudi Arabia, thus indicating that some companies have largely reached maximum economies of scale.
- The claim ratios are high at 79% in 2015, and similar to the levels observed in other GCC countries. It is noted that the average claim ratio for the general insurance market in Saudi Arabia is significantly higher than those observed in Malaysia. The average profit margin (i.e. net profit as a percentage of GWP) in Saudi Arabia is small at around 2% in 2015. Nevertheless, the return on equity has improved and turned positive to 7% in 2015, driven by improvements in claims ratios. It is observed that the return on equity for Saudi Arabia is higher when compared to other GCC countries.



GCC Opportunities and Challenges



We believe there are significant opportunities to grow the takaful industry in the GCC, as outlined below:

- A largely underpenetrated market as the GCC has one of the lowest life insurance penetration rates in the world, resulting in significant untapped opportunities and growth prospects for family takaful.
- Mandatory motor and medical insurance which has resulted in a significant increase in the insurance penetration in the market.
- Development of robust regulations towards global best practices, with a focus on better corporate governance, sound technical underwriting and providing protection to policyholders.
- Opportunity for consolidation given the large number of existing players.
- Opportunity to grow the agency channel to increase market penetration rate.
- Requirement to cede the business to the local reinsurers/retakaful players.
- Existence of many global reinsurers / retakaful operators, thus giving access to underwriting and claims management support, as well as Third Party Administrator (TPA) services for medical business.
- Government focus beyond oil and gas industry.

However the takaful industry in the GCC region is expecting to face the following challenges:

- Increasing pressure on profitability as takaful compete with conventional players, particularly on compulsory lines such as motor and medical business.
- The lack of long-term view on profitability by shareholders.
- Products are often complicated (e.g. unit-linked) and mimic conventional product offerings.
- Consumer preference for short term investments, particularly given the large proportion of expatriates in the GCC region, thus limiting the demands for long term family takaful products.
- Low-interest rate environment.
- Lack of robust regulation, resulting in shareholders' fund appears to be profitable at the expense of the policyholders' fund (which is in perpetual qard position). In life insurance and family takaful, high levels of upfront commissions are charged by intermediaries with little or no disclosures to policyholders. These issues are being addressed by several regulators.
- Heavy dependence on reinsurance players, with a large proportion of businesses being ceded to reinsurers.
- The lack of expertise and skilled human resource in the market.



Section 8

Key Regulatory Updates and Trends



Overview

We have conducted a comparative study on several aspects of the takaful regulations for the following major markets:

- Malaysia
- Indonesia
- Bahrain
- UAE
- Saudi Arabia.

The key observations on the comparative study of the regulations on these major takaful markets are discussed in the following pages.



Key Regulatory Updates and Trends (1)

Implementation of Risk-Based Capital Framework

Malaysia was one of the first countries to implement a Risk-Based Capital Framework within the takaful industry globally in 2013. One of the key implications of the implementation of a RBC Framework in Malaysia is the change in the product landscape, whereby takaful companies shifted their product offerings towards less capital intensive products. As traditional products can be capital intensive under RBC, most takaful companies in Malaysia focused their new business sales towards unit-linked business. Indonesia also has implemented a RBC Framework. The countries in the GCC remain largely on a Solvency I basis, although the UAE has partially moved to a Solvency II basis retaining some elements of Solvency I basis.

Composites

Most of the companies in operation in the GCC are composites. In the UAE, there is a requirement to split life and non-life business activities by August 2017 for composite companies. However, it is unlikely that this regulation will be enforced in the near future. It appears that the regulator may tolerate composite entities so long as there is some bifurcation of activities including separate reporting and strict governance to separate the life and non-life operations. This is not unreasonable given the business tends to be heavily lopsided towards general takaful business, and thus splitting the entities would result in difficulty to grow the smaller (family takaful) business. In South East Asia, there is a trend towards standalone or separate entities. For example, Malaysia has imposed a requirement for takaful composites to split by 2018. Similarly in Indonesia, companies with takaful windows are required to spin-off their takaful business by 2024. The challenge for the South East Asian market is the lack of scale for general takaful business. Many takaful companies in Malaysia face the challenge of trying to develop sufficient critical mass within the general takaful business to service the minimum paid-up capital of RM100 million (circa US\$23 million) by 2018. The general takaful market is growing faster than the conventional market, but not fast enough to generate the requisite returns on the minimum RM100 million of capital.

Takaful windows

Most jurisdictions do not allow takaful windows to be in operation with the exception of Indonesia. Recent regulations introduced in 2014 by Indonesian authorities now require companies to split their Syariah business into a separate entity, within a period of 10 years (i.e. by 2024) or once the Syariah funds exceed more than 50% of all insurance funds held, whichever occurs earlier. This has resulted in companies reviewing their business strategy in light of the new requirements, on whether to spin-off their Syariah units as soon as possible to gain a first-mover advantage with the wider choice of bancatakaful partnership, or wait until the last possible moment to leverage on lower capital requirement under the window operation. Most existing companies seem unlikely to have sufficient Syariah business to meet the immediate separation condition. Therefore, unless companies are taking a more strategic view to gain the first-mover advantage, companies are more likely to have 10 years to plan for the spin off and to grow Syariah business to a size that can meet likely higher capital requirements and operational separation involved.

Other countries that allow takaful windows are Kenva (based on the draft takaful regulations) and Pakistan. In Pakistan, takaful windows were initially not allowed. This was changed recently in 2012 to boost the takaful market. However this change has triggered a lawsuit by the five standalone takaful companies claiming the rules gave conventional insurers an unfair advantage. The legal dispute was only resolved in May 2014, after some amendments were made to the regulations to create a more level plaving field.

Takaful models

Saudi Arabia remains unique in that it is the only country to have adopted a cooperative model. With the exception of Saudi Arabia, most countries in the GCC have adopted the recommendations by AAOIFI, which applies a wakalah model for underwriting activities and mudarabah for investment activities. In Malaysia, companies typically adopt the wakalah and mudarabah model, and companies are allowed to receive a performance fee from good underwriting activities (an approach which is typically not practiced by companies in the GCC). In Indonesia, companies typically adopt the mudarabah model for all its activities. Overall there is some convergence towards the takaful models outlined by AAOIFI in most markets, particularly for new takaful jurisdictions.



Key Regulatory Updates and Trends (2)

Commissions

There are varying trends on commissions. In Malaysia, there is a phased approach on the partial liberalization of the commission level as the regulators are encouraging the growth of the non-agency force, while continuing to protect consumers' interests. As some commission levels are liberalized, the regulators have put in some protective measures such as the implementation of the Minimum Allocation Rate (MAR) applicable to unit-linked business. With the application of the MAR, this implies that the level of commissions will need to be reduced, unless this is funded by the shareholders or via certain Financial Reinsurance arrangements, or by changing its product design to be back-end loaded. In contrast, most of the markets in the GCC have evolved from a largely unregulated market towards a more regulated market in terms of commission level to protect consumers' interests.

Treatment of wakalah fee

In all the takaful markets considered above, there is no formal regulation of the wakalah fee. However for Malaysia and Bahrain, there is a requirement for companies to disclose the level of wakalah fees in its sales illustration to maintain the high level of transparency. Given that companies are required to submit any new products to the regulators, and in particular given that there is a need to ensure that the contribution charges to the risk fund is expected to be sufficient, this implies that wakalah fees are implicitly regulated. In November 2016, the Insurance Authority in the UAE released a circular capping the level of wakalah and mudarabah fee for yearly renewable policies at 35% of gross written contributions and participant investment revenue.

Treatment of gard

There are varying treatments and interpretation of qard in the various jurisdictions considered above. Malaysia adopts one of the most stringent regulations on the treatment of qard. In Malaysia, there is a requirement for companies to provide qard to the takaful risk fund when there is a deficit in the risk fund. In addition, companies are required to state the expected qard payment period, determine when qard is deemed to be irrecoverable and its corresponding policy on surplus distribution (e.g. whether surplus distribution remains on hold, reduced or continues). The regulators also have the power to require companies to convert the qard into an outright transfer, in view of the long-term viability of the fund.

In the GCC, the treatment of qard is largely in line with AAOIFI reporting standard. In Bahrain, the regulator mandates that the qard is repaid within five years, or subsequently written off. The UAE requires the entire deficit arising in the participant fund to be allocated and met by the shareholders fund.

New regulations

The regulators in most of the jurisdictions considered above have been active in issuing new guidelines to enhance the existing regulations. Malaysia is currently focused on developing non-agency channels (such as bancatakaful, direct channels, online). The general takaful business in Malaysia is also expected to experience a phased detariffication environment in the next few years. Indonesia has also enhanced its regulations for its Syariah business, indicating its commitment to grow the Syariah/takaful business along with the conventional business. In the GCC, most regulators are focused on developing better corporate governance, strengthening companies' technical provisions, sound actuarial pricing for motor and medical lines of business and putting in place regulations that will protect the policyholders' interest.



Section 9

Opportunities in Retirement Savings



Overview

We have conducted a comparative study on retirement savings landscape for the following major markets:

- Malaysia
- Indonesia
- Bahrain
- UAE
- Saudi Arabia.

The opportunities and challenges within these markets are discussed in the following pages.



Opportunities in Retirement Savings

- Market potential with ageing society. Overall there is an ageing society in most jurisdictions. In the GCC the number of working-age adults per pensioner is expected to decrease from 8.25 in 2010 to 2.5 in 2050. In Indonesia, there is only a small proportion of workers that have set aside a portion of their income for future savings. If this continues, the government expects to spend a greater amount of its annual budget to fund these retired citizens, which may impose a burden on the younger workers, exacerbated by the ageing population. This represents an opportunity for the private sector such as the takaful industry to meet the demand of providing a suitable product for retirement planning.
- High savings rate. In Malaysia, there is a high contribution rates for mandatory retirement savings in the Employees Provident Fund. However as the payouts are provided as a lump sum at age of 55, there is opportunity for takaful companies to convert some of this lump sum into regular income during retirement, by offering a suitable retirement product. However this also requires financial awareness and education on the importance of regular retirement income such as annuities.
- Takaful to develop niche products. In Malaysia, as the high rate of returns provided by the EPF makes it difficult for companies to compete with the EPF, takaful companies may be better placed to provide a niche product focusing on providing protection on longevity risk only, or the tail risk of the longevity product. In UAE, the market offers significant potential for private pensions and savings as credible retirement products are hard to come by. There is increasing importance of shariah products in the market, representing opportunities for growth for takaful.
- Government incentives and commitment. In Malaysia, the government is offering a tax incentive of RM3,000 (i.e. around US\$734*) per year for Private Retirement Scheme and annuity contributions until year 2021, which has helped spur the private retirement market. The government appears to be keen to develop the retirement savings space which can assist the growth of family takaful if the industry can offer such products for retirement.
- Pension reforms in the GCC. Due to funding pressure (and other economic/political drivers), there is likely to be a gradual reform in the state pension systems. The growing financial strain and awareness of long-term costs under the state-administered pensions may culminate in encouragement for occupational/personal retirement saving. These may help place more emphasis on occupational/personal retirement savings. This will give rise to opportunities for family takaful providers.
- Targeting the expatriates in the GCC. There is significant opportunity to target the expatriate community in the GCC. This accounts for a substantial proportion of the working population in the region. Suitable retirement products need to be designed for expatriate needs in particular, the ability to transfer retirement savings back to their home country in a tax efficient manner. Some expatriates have preferred to purchase long-term products in their home country to avoid the difficulty of transporting back their policies/savings. This represents an untapped market for the family takaful providers.
- Targeting the underpenetrated markets. There is opportunity to target the middle and lower income group, which is largely underserved in most markets. In the GCC region, there is minimal presence by life insurance companies, particularly those offering retirement products within this section of the population. This represents a gap in the market offering, giving rise to opportunities for new niche family takaful players to enter the market. In Saudi Arabia, there is opportunity to target the nationals, although firstly there needs to be education on the importance of savings for retirement. In addition, the women segment is largely underserved, representing further opportunities.
- Lack of decumulation products. For all of the markets under consideration, the retirement products available are mainly focused on the accumulation phase and may just provide a lump sum at retirement. There are very limited products available in the market which are decumulation in nature (e.g. annuities), which are essential to protect retirees from longevity risk. In Malaysia, HSBC Amanah Takaful provides fixed term annuities but there is still the risk of the retiree living longer, beyond the contract term. In Indonesia, the current regulations do not allow retirees to receive lump sums. This provides opportunities for takaful companies to innovate and offer new pension products, particularly shariah-compliant products to tap into the majority Muslim market. The lack of decumulation retirement product represents a significant gap in the market, and an opportunity for family takaful providers.



Challenges in Retirement Savings

- Lack of financial awareness / lack of demand. There is a lack of awareness and education on the importance of saving for retirement in nearly all jurisdictions. There is a need to educate consumers on the need for such longevity protection. Where savings for retirement have been made mandatory (e.g. Malaysia) this has reduced (but not fully mitigated) the risk of insufficient funds at retirement. In the GCC, awareness of the need for retirement saving and how to manage it is poor. Takaful can play a significant role in providing education and increasing awareness (e.g. via concerted campaign and marketing efforts).
- Lack of demand. Although there may be an obvious need by consumers, there is low demand for retirement products in the market. In Malaysia, the population prefers to bequest their savings to their children (e.g. by investing in properties rather than annuities). This results in a low demand for retirement products.
- Generous state benefits. Across the GCC, there are generous state-administered defined-benefit pension schemes in which citizens from the formal economy can participate. This undermines demand for supplementary occupational/personal savings from this segment of the population. The availability of this benefit has driven down the demand for family takaful business. However, under current economic and demographic conditions, the sustainability of these state pension schemes has come under increasing scrutiny. This may lead onto reforms as previously mentioned above.
- Affordability. In Malaysia, there is limited ability amongst most mass market consumers to purchase additional retirement savings products after making the mandatory savings for retirement, unless consumers are able to utilize their existing savings (e.g. EPF and PRS) to purchase these products. In Indonesia, only a small proportion of workers have set aside a portion of their income for future savings.
- Regulations and high capital requirements. The RBC framework in Malaysia leads to high reserving and capital requirement for annuities, making it challenging for takaful companies to offer annuities. In the GCC, the regulatory process to establish a company can be lengthy, complicated, and expensive (e.g. due to having to deal with multiple regulators in the GCC) such that there is a barrier to new entrants into the market.
- Difficulty in pricing and managing longevity risk. There is also difficulty in pricing for longevity risk and thus annuities. Given the uncertainty, insurance and takaful companies alike are likely to incorporate high margins which will increase the price. In Indonesia, some of the operators are still small in size and might not be ready to bear the risks from pension products which have long term liabilities.
- Alternative investments available. In Malaysia, insurance and takaful companies are unable to compete with the high returns offered by the EPF (historically at around 6% p.a.), thus making any retirement products offered by the insurance and takaful companies unattractive in terms of returns. As previously mentioned, in Asia, consumers typically prefer to invest in properties given the ability to bequest their investments to their children.
- Availability of suitable assets. There is limited availability of suitable long-term shariah-compliant assets to match the liabilities in most jurisdictions. For countries with a
 RBC Framework such as Malaysia and Indonesia, any mismatching or concentration risk will further increase capital requirement.
- Challenges in meeting the needs of expatriates. Expatriates may already have access to saving platforms in their home country. Expatriate workers may not identify with making retirement savings outside their home country. This may arise from a lack of awareness. The issue is exacerbated by the young demographic of the expatriate population.
- Economic and business environment. Economic/political factors will heavily influence aggregate demand for retirement savings. In the GCC, the overall economic outlook is poor in light of persistent low oil prices. In the UAE, a crowded market means there is limited scope for growth. All types of players are present in the market and are well established (comprising insurers, IFAs, brokers, banks, etc.). There is also intense competition in Abu Dhabi/Dubai. Products typically have low margins and high commissions.
- Challenges in distributions. In Malaysia, the agents are not keen to distribute annuities given the complexity of the product and the low level of commissions offered. In the GCC, the distribution relies heavily on agents and banks, and the freelance agent model is not allowed, which limits the level of outreach by intermediaries. In Saudi Arabia, a sales team has to be local and similarly, the freelance agent model is not allowed.



Section 10

Conclusion and Future Outlook



Conclusion and Future Outlook

The global takaful market continues to demonstrate strong double-digit growth rates, both for general takaful and family takaful. The GCC continues to dominate the general takaful space, whereas South East Asia continues to be primarily focused on family takaful. As family takaful is largely non-existent in the GCC, and correspondingly as the size of general takaful business in South East Asia remains small, there are growth opportunities for family takaful and general takaful to grow in the GCC and South East Asia regions respectively. However, it is also recognized that there are challenges to grow such businesses in the markets. For example, the generous state benefits provided in the GCC countries are likely to drive down demand for family takaful business. Nevertheless, upcoming regulatory changes in these markets are likely to spur on the growth in these market segments for both regions.

Africa represents the greatest growth potential overall. Although takaful was only introduced recently in the African region, there is a strong demand for takaful products, particularly by the large Muslim population in the region. Kenya recently introduced draft takaful specific guidelines and it is expected that Tanzania will also release its takaful guidelines in the near future. There are many other new jurisdictions which have also introduced takaful specific guidelines in recent years, such as Turkey and Oman, indicating the growth of new takaful markets.

Regulators in most jurisdictions are tightening and enhancing the regulations towards global best practices. Malaysia continues to lead the way in terms of advancements in takaful regulations, with a Risk-Based Capital Framework and an Internal Capital Adequacy Assessment Process in place. Most jurisdictions do not allow takaful windows to be in operation, with the exception of several countries such as Indonesia, Pakistan and Kenya. In Indonesia, the requirement to spin-off its takaful windows by 2024 is also likely to spur various market activities. In the GCC the regulators are focusing on developing better corporate governance and putting in place regulations to protect policyholders' interests. In most regulations, treatment of qard is specifically addressed, which further protects the solvency of the takaful fund and its ability to pay out claims.

Notably there is a lack of retirement-related products in the family takaful space. In the GCC, there are concerns on the long-term sustainability of the state schemes which are often unfunded, particularly given demographic and economic pressures in the region. Hence, reforms in the pension landscape in the GCC are likely. Concerted efforts are being made to enhance retirement savings via employer-funded and private-funded pension schemes in this region.

In addition, for all markets considered above, retirement savings products that are available are mainly focused on savings or accumulation products which often provide a lump sum at retirement. There is a very limited supply of products available in the market which are decumulation in nature (e.g. annuities), which are essential to protect retirees from longevity risk. This presents opportunities for family takaful operators to offer shariah-compliant retirement solutions.



Appendix A

Reliances and limitations



Reliances and Limitations

This report may be reproduced in whole or in part, provided prominent acknowledgment of the source is given.

In order to fully comprehend this report, any user of this report should be advised by a suitably qualified person in Milliman with a substantial level of expertise in areas relevant to this analysis to appreciate the significance of the underlying findings. This report should be read in its entirety to be fully understood.

In carrying out our work and producing this report, we have relied upon information supplied to us by third parties as well as upon published financial information. Data has been collected from a variety of sources and includes data obtained from market sources that is not published. As such, although every effort is made to ensure that the information in this report is accurate, we cannot always verify some of the data that has been presented and have hence relied on this data. To the extent that there are any material errors in the information presented, the conclusions presented in this report may be affected. Milliman accepts no responsibility whatsoever for any errors or omissions, or the actions of third parties.

This report and the information it contains should not be relied upon as advice from Milliman or a recommendation to the future strategy for takaful operators. No reliance should be placed on the results or graphs presented herein and no inference should be made about the appropriateness of the different projections or assumptions presented. In particular, independent verification and specific professional advice should be sought to reflect the individual circumstances.

There is no single source containing quantification of Takaful premiums (or contributions) globally, by region or country. Milliman has estimated the Takaful numbers from company financials, regulatory reports, industry reports and internal estimates, where necessary.



Appendix B

Key sources of data



Key sources of data

- Bank Negara Malaysia (BNM)
- Department of Statistics, Malaysia
- 2012-2015 Statistical Yearbook Insurance Services Malaysia Berhad
- Financial Services Authority (OJK), Indonesia
- Insurance Authority (IA), UAE
- Saudi Arabian Monetary Authority (SAMA)
- Central Bank of Bahrain
- Capital Market Authority, Oman
- Securities & Exchange Commission of Pakistan (SECP)
- Qatar Central Bank (QCB)
- Company Financials (annual returns 2012 2015)
- Various sources (including Islamic Finance News, Reuters, Oxford Business Group, Daily FT, Asia Insurance Review, Middle East Insurance Review, The Jakarta Post, The Star, Emirates247).



Exchange rate

The following exchange rates have been adopted in the analysis, and represent the exchange rates observed at the end of each year.

Country	Local Units	US Dollar					
Country		2011	2012	2013	2014	2015	
Bahrain	1	2.6525	2.6521	2.6518	2.6522	2.6518	
Bangladesh	100	1.2228	1.2551	1.2939	1.284	1.2751	
Brunei	1	0.7713	0.8186	0.7922	0.7552	0.7063	
Egypt	1	0.1659	0.1574	0.1439	0.1398	0.1278	
Gambia	1	0.0337	0.0293	0.0263	0.0232	0.0254	
Indonesia	100	0.011	0.0102	0.0082	0.0081	0.0072	
Jordan	1	1.4104	1.4083	1.4128	1.4132	1.4103	
Kenya	1	0.0118	0.0116	0.0116	0.011	0.0098	
Kuwait	1	3.5926	3.5542	3.5426	3.4147	3.2944	
Malaysia	1	0.3156	0.327	0.305	0.2858	0.2323	
Oman	1	2.5974	2.5977	2.5977	2.5974	2.5971	
Pakistan	100	1.1117	1.028	0.9479	0.9948	0.9533	
Qatar	100	27.4612	27.4638	27.4628	27.4616	27.4643	
Saudi Arabia	100	26.6649	26.6605	26.6638	26.643	26.6401	
Sri Lanka	100	0.8671	0.7831	0.7645	0.7621	0.6937	
Sudan	1	0.3743	0.2267	0.2271	0.1709	0.1639	
Syria	1	0.0199	0.0141	0.0089	0.0056	0.0053	
Tunisia	1	0.6682	0.6438	0.608	0.5371	0.4923	
Turkey	1	0.5285	0.5602	0.4655	0.4288	0.3429	
UAE	100	27.2264	27.2257	27.2257	27.2253	27.2261	
Yemen	100	0.4577	0.4656	0.4654	0.4651	0.4648	

Milliman Solutions & Contact Details



Range of Takaful Solutions in Milliman

Range of Services	Description				
Review business plans	Create and review business plans for new and existing takaful and retakaful companies.				
Product development	Create and design life and non-life product lines that are Shariah-compliant and actuarially sound.				
Risk management	Create innovative solutions for larger risks within the bounds of Shariah principles.				
	Build tools for sound surplus distribution and allocation of wakala fees.				
Modelling	Ensure efficient management and monitoring tools for meeting shareholder, policyholder and Shariah board expectations.				
	Provide modelling packages that are tailor made to meet takaful requirements.				
	Create and advise on funds (subject to authorisation restrictions), pool and underwriting procedures to meet Shariah requirements.				
Regulatory & compliance	Assist with Shariah board and regulatory audits.				
	Provide innovative solutions for Shariah compliant investment policy, including framework for asset-liability management (ALM).				
Strategy work	Feasibility analysis and market entry work for entities interested to enter new takaful markets.				
Mergers & acquisitions	Assess joint venture / mergers and acquisitions plans / partnership with other Shariah-compliant organisations.				
Actuarial valuation	Actuarial valuation and reserve certification of takaful and retakaful portfolios.				
Due diligence	Carry out due diligence activities.				
Capital management	Determine optimal capital structure including retakaful strategy to align shareholder and policyholder interests.				
General consultancy	Provide support for takaful staff at all levels and in various functions, i.e., actuarial, investments, underwriting, claims and administration.				



Milliman Project Team and Contact Details

Farzana Ismail, FIA, FASM	Head of Life Insurance and Family Takaful Consulting, Malaysia	farzana.ismail@milliman.com
Safder Jaffer, FIA	Managing Director, Middle East & Africa	safder.jaffer@milliman.com
Lindsay Unwin, FIA	Consulting Actuary, London	lindsay.unwin@milliman.com
Saqib Jamil, FIA	Consulting Actuary, Dubai	saqib.jamil@milliman.com
Amir Aiman Md Hassan	Associate, Kuala Lumpur	amir.hassan@milliman.com
Khalid Alajaji	Associate, Dubai	khalid.alajaji@milliman.com
Yi Yee Tan	Associate, Kuala Lumpur	<u>yiyee.tan@milliman.com</u>

For questions or comments on this report please contact: takafulreport@milliman.com

<u>Dubai</u>

Liberty House, Unit 809, Level 8 , Dubai International Financial Centre (DIFC), P.O. Box 506784, Dubai, United Arab Emirates. Tel: +971 4 386 6990 Fax: +971 4 386 6950

Kuala Lumpur

Suite 22-03, Level 22, Q Sentral, 2A Jalan Stesen Sentral 2, Kuala Lumpur Sentral, 50470 Kuala Lumpur, Malaysia. Tel: + 603 2722 7180

<u>London</u>

11 Old Jewry, London EC2R 8DU, United Kingdom Tel: +44 207 847 1500 Fax: +44 207 847 1501



C Milliman

© 2017

Milliman, Inc. All Rights Reserved. The materials in this document represent the opinion of the authors and are not representative of the views of Milliman, Inc. Milliman does not certify the information, nor does it guarantee the accuracy and completeness of such information. Use of such information is voluntary and should not be relied upon unless an independent review of its accuracy and completeness has been performed. Materials may not be reproduced without the express consent of Milliman.