

MILLIMAN RESEARCH REPORT

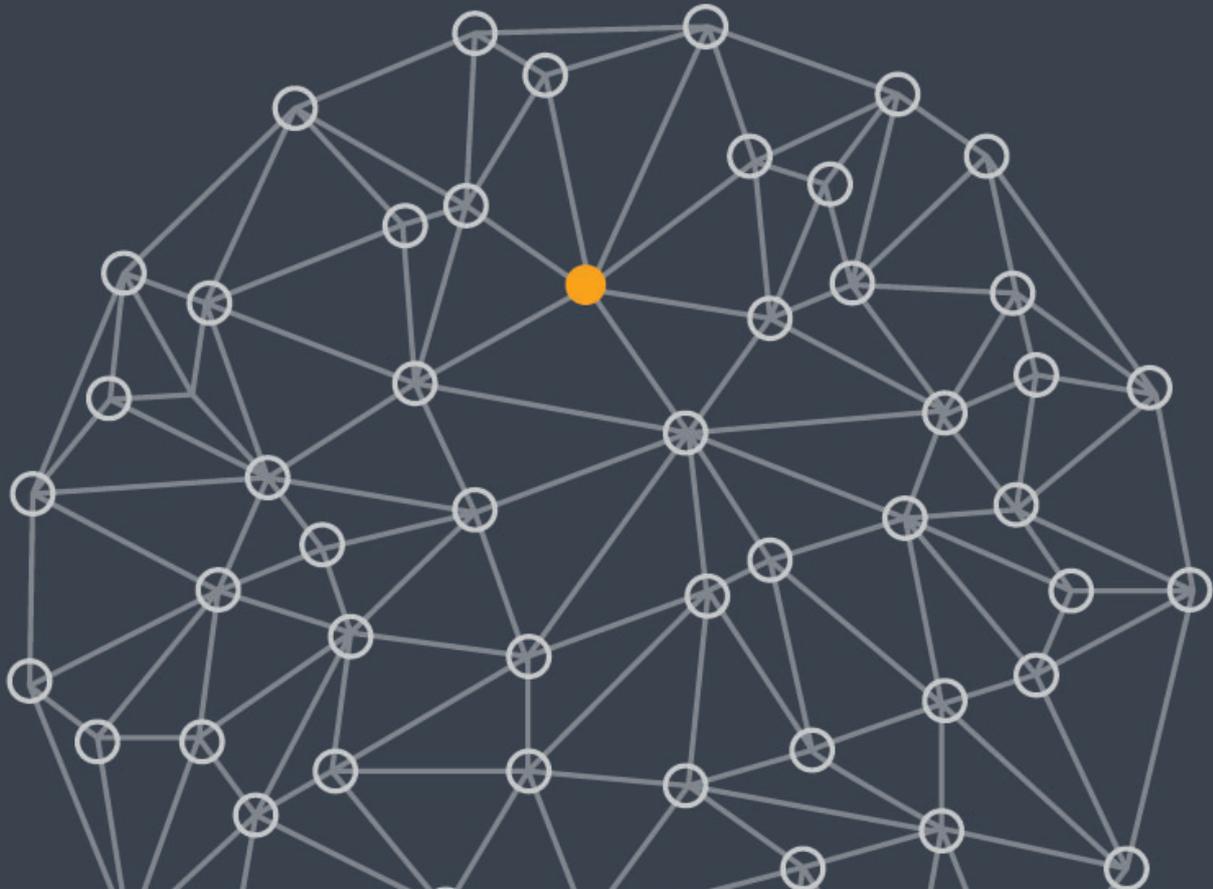
# Global Takaful Report 2017

Market trends in family and general Takaful

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# 1. 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.

## The editors

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## 2. EXECUTIVE SUMMARY

### 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

Our analysis is based on publicly available data, including company financial statements, regulatory reports and industry reports. Further details are provided in Appendix D.

### MARKET TRENDS

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

SECTOR	MARKET SHARE	ESTIMATED REVENUES	GROWTH RATE IN 2015
<b>General Takaful</b>	83%	US\$ 12.3 bn	17%
<b>Family Takaful</b>	17%	US\$ 2.6 bn	(1)%*
<b>Total Takaful</b>	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 industries in most countries continue to exhibit positive growth rates.

It is noted that while growth in total GWC<sup>1</sup> or gross written premiums (GWP) are common measures 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 annual premium equivalent (APE<sup>2</sup>) or annual 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 dollars, based on the exchange rates at the end of each year. We recommend that the growth rates in GWC determined in US dollar terms be considered with care, as otherwise they 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.

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 terms.<sup>3</sup> 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

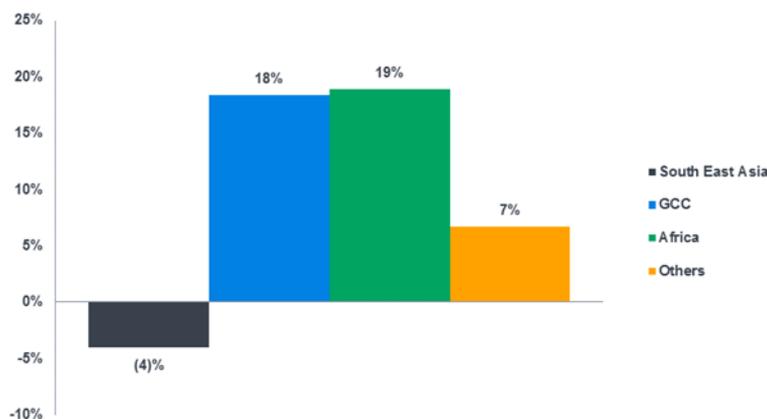
<sup>1</sup> In this report, we have used the term "premium" and "contribution" interchangeably. It is noted that in certain Takaful markets, contributions is more commonly used, whereas in other markets, the term premium is adopted.

<sup>2</sup> Annual premium equivalent is defined as 100% regular premiums plus 10% of single premiums written in the financial year.

<sup>3</sup> Based on growth rates in local currencies observed in individual countries considered in this report.

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 in Figure 1.

**FIGURE 1: TOTAL TAKAFUL COMPOUND ANNUAL GROWTH RATE (CAGR) OF GWC BY KEY REGIONS (2012-2015) (US\$)**



Source: Milliman analysis of industry data

The largest market is the Kingdom of 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 life<sup>4</sup> 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 is 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 for 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.

<sup>4</sup> In Saudi Arabia, life insurance business is referred to as Protection & Savings (P&S).

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 towards global standards, with a focus on better more robust governance and providing protection to consumers.

#### OPPORTUNITIES AND CHALLENGES

**Regulatory evolution and 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-off<sup>5</sup> 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 qard<sup>6</sup> 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.

<sup>5</sup> 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.

<sup>6</sup> 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.

### 3. 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, GWC or 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 listed below.

- **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

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

1. 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.
2. 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 APE or 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.
3. 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 E. We recommend that the growth rates in GWC determined in US dollar terms be considered with care, as otherwise they 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.

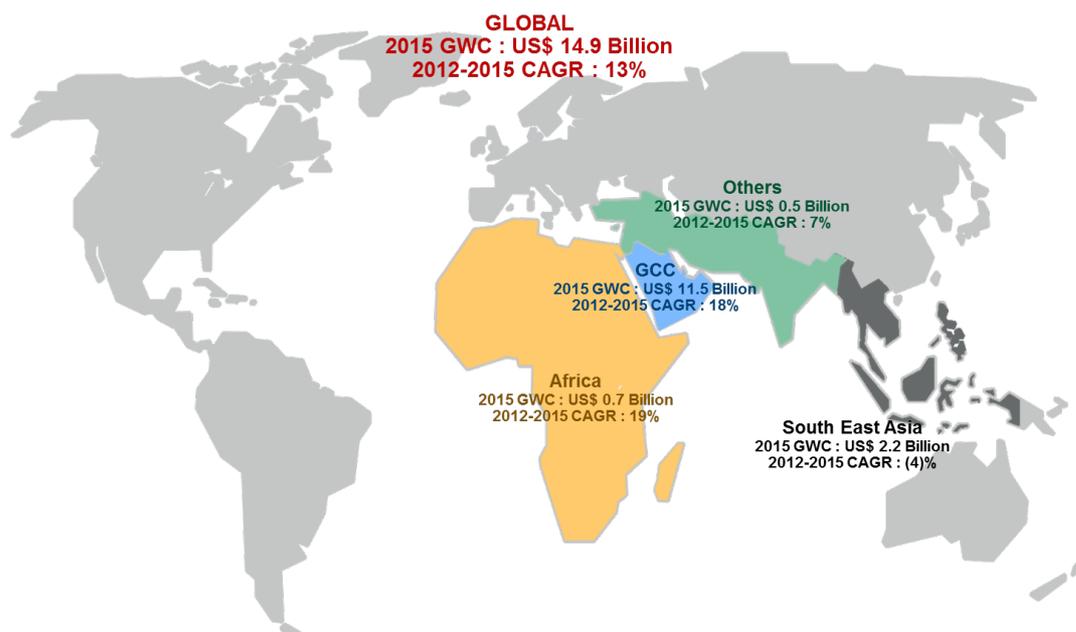
In this report, growth rates are expressed in terms of total GWC, unless otherwise stated. Some of the numbers presented in the tables in this report may not be additive due to rounding.

## 4. OVERVIEW OF THE GLOBAL TAKAFUL MARKET

Figure 2 summarises the consolidated GWC position for 2015 and the CAGR over the period 2012-2015, both globally and at a regional level.

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.

FIGURE 2: GLOBAL TAKAFUL OVERVIEW



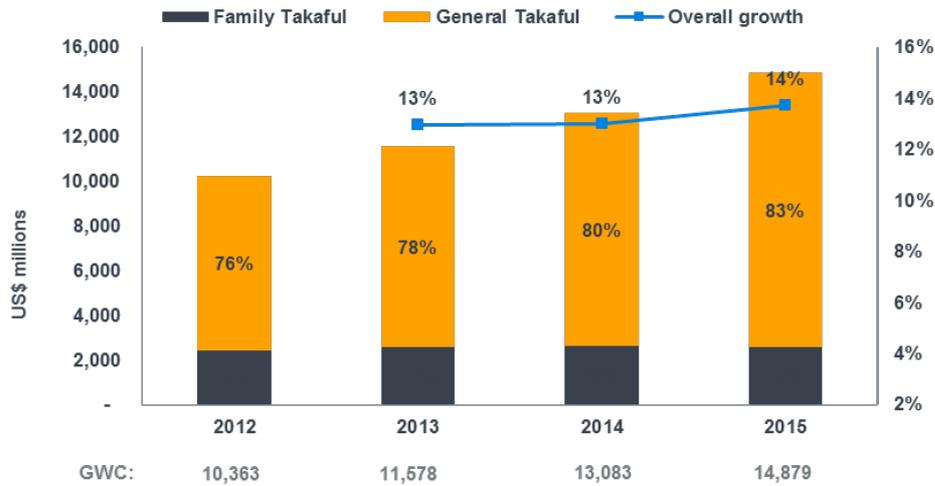
Source: Milliman analysis of industry data

Figure 3 indicates that there is strong growth in the overall global Takaful market, in the range of 13% to 14% per annum<sup>7</sup> 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 with 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, with a moderate decrease in GWC for family Takaful business (due to weakening local currencies). In local currency terms, there continues to be a moderate increase in GWC for family Takaful business globally. This is examined in more detail later in the report, when family and general Takaful are considered separately.

<sup>7</sup> Based on our analysis of publicly available statistics such as industry statistics and companies' financial statements.

FIGURE 3: GLOBAL TAKAFUL GWC AND GROWTH (US\$)

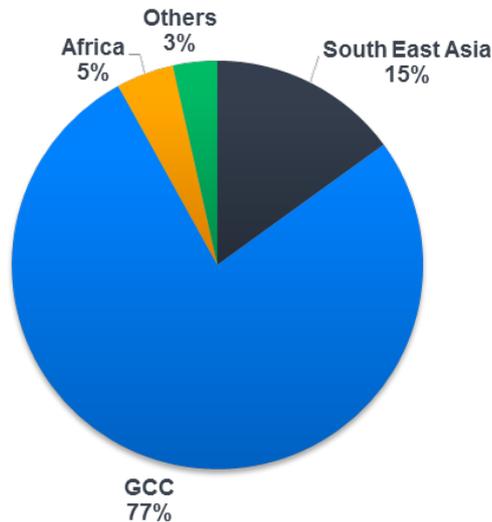


Source: Milliman analysis of industry data

As shown in Figure 4, 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.

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.

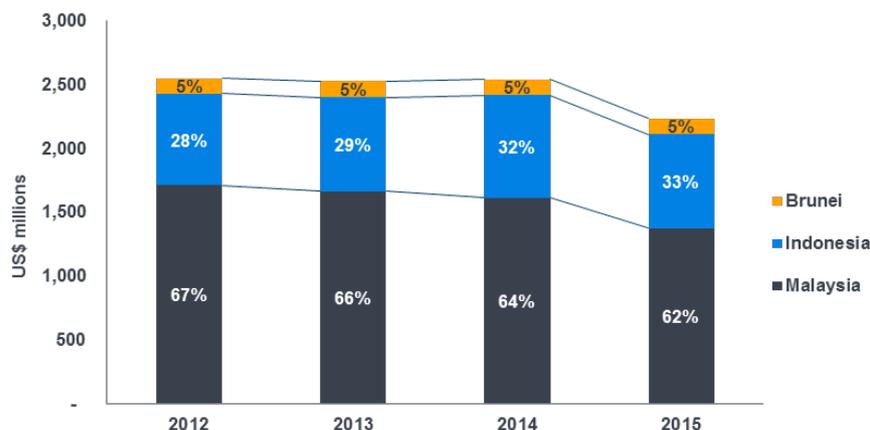
FIGURE 4: PERCENTAGE OF TAKAFUL GWC BY KEY REGIONS IN 2015 (US\$)



Source: Milliman analysis of industry data. Figures may not be additive due to rounding.

The following two graphs set out the split of the GWC by country for the South East Asian and GCC regions, showing the GWC in US dollars for family and general Takaful combined, along with the relative market share of each country within these regions.

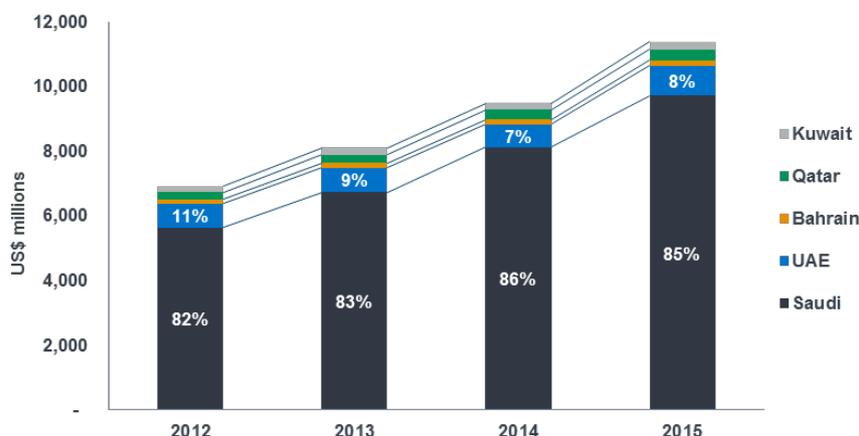
**FIGURE 5: TAKAFUL GWC IN SOUTH EAST ASIA (US\$)**



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

Source: Milliman analysis of industry data. Figures may not be additive due to rounding.

**FIGURE 6: TAKAFUL GWC IN GCC (US\$)**



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

Source: Milliman analysis of industry data. Figures may not be additive due to rounding.

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 Figure 5, 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 Malaysian 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.

As shown in Figure 6, 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.

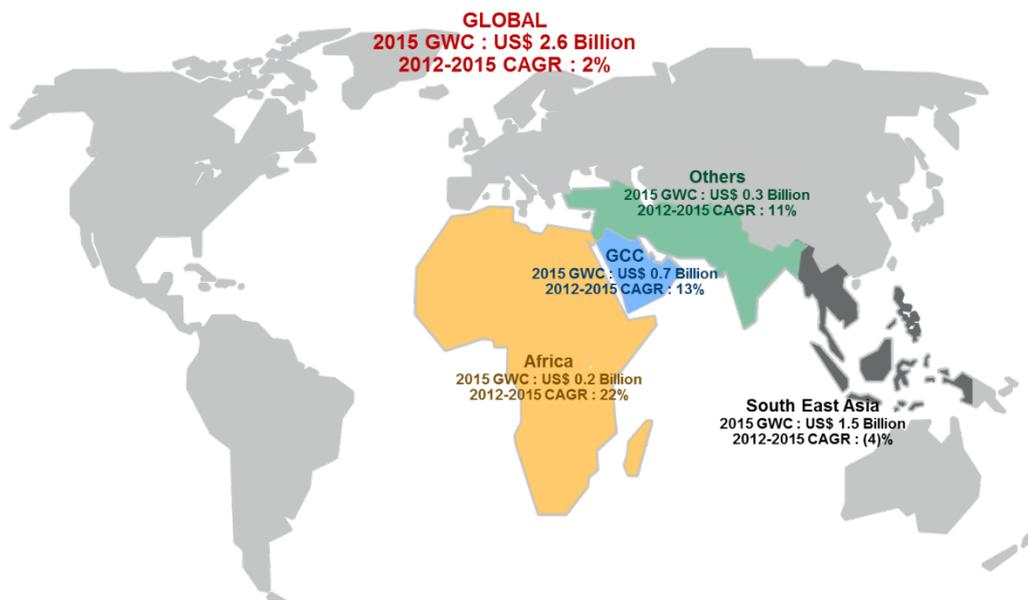
We observe that the drivers of growth within each of these key regions are different, and hence we have analysed the growth trends separately for family and general Takaful. Further insights on each of the family and general Takaful market trends are discussed below in Sections 5 and 6, respectively.

## 5. OVERVIEW OF THE FAMILY TAKAFUL MARKET

Figure 7 summarises the consolidated GWC position for 2015 and the CAGR over the period 2012-2015, both globally and at a regional level for family Takaful.

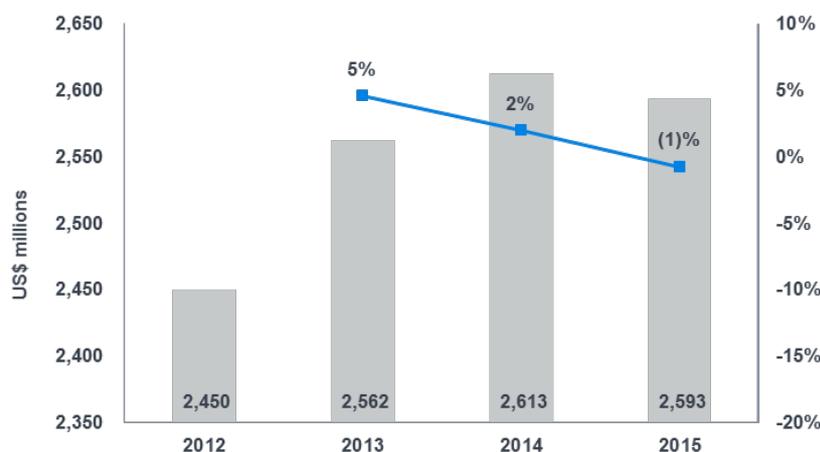
Family Takaful represents 17% of the global Takaful market, with GWC of US\$2.6 billion in 2015. The industry exhibited a growth rate of (1)% in 2015 (compared with 2% in 2014) in US dollar terms, as illustrated in Figure 8. However, in local currencies, most markets continue to exhibit positive growth rates in 2015. Similarly, the CAGR in US dollars over the period of 2012-2015 is 2%, but is much higher in local currency terms.

FIGURE 7: GLOBAL FAMILY TAKAFUL OVERVIEW (US\$)



Source: Milliman analysis of industry data

FIGURE 8: GLOBAL FAMILY TAKAFUL GWC AND GROWTH (US\$)



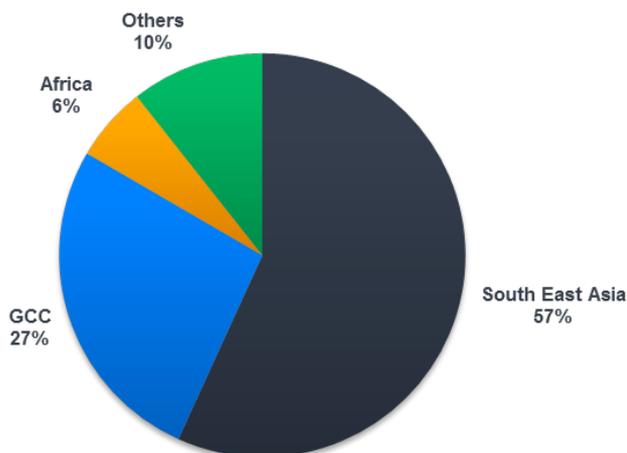
Source: Milliman analysis of industry data

As shown in Figure 9, 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.

FIGURE 9: PERCENTAGE OF FAMILY TAKAFUL GWC BY KEY REGIONS IN 2015 (US\$)

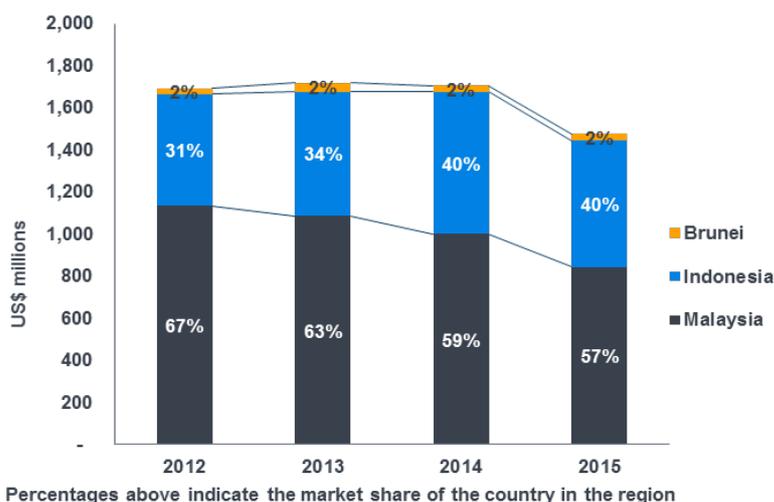


Source: Milliman analysis of industry data. Figures may not be additive due to rounding.

Malaysia has the largest family Takaful market globally with 33% of the market share (or 57% in South East Asia as seen in Figure 10) 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 8. Comparable ACE figures are not available for Indonesia.

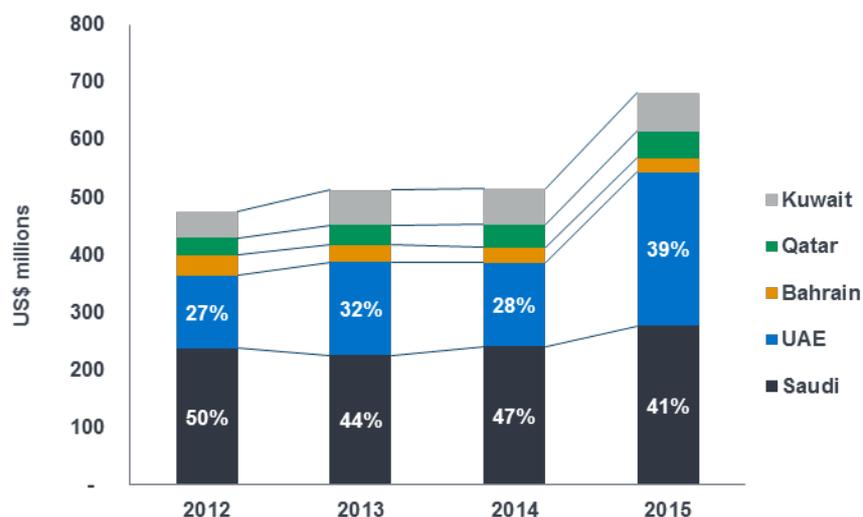
FIGURE 10: FAMILY TAKAFUL GWC IN SOUTH EAST ASIA (US\$)



Source: Milliman analysis of industry data. Figures may not be additive due to rounding.

The family Takaful market in the GCC (shown in Figure 11) 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 10.

FIGURE 11: FAMILY TAKAFUL GWC IN GCC (US\$)



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

Source: Milliman analysis of industry data. Figures may not be additive due to rounding.

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 with 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.

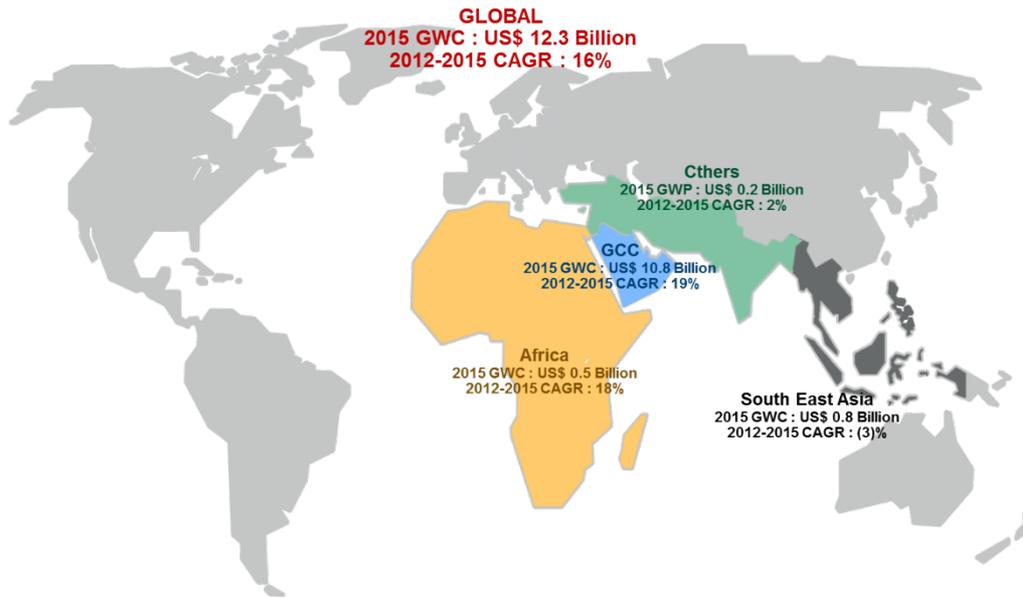
It is this lack of market penetration combined with potential state benefit reforms, which are expected to take place in the near future, that provide an ideal opportunity for the family Takaful industry to develop appropriate Shariah-compliant products for the population.

## 6. OVERVIEW OF THE GENERAL TAKAFUL MARKET

Figure 12 summarises the consolidated GWC position for 2015 and the CAGR over the period 2012-2015, both globally and at a regional level for general Takaful.

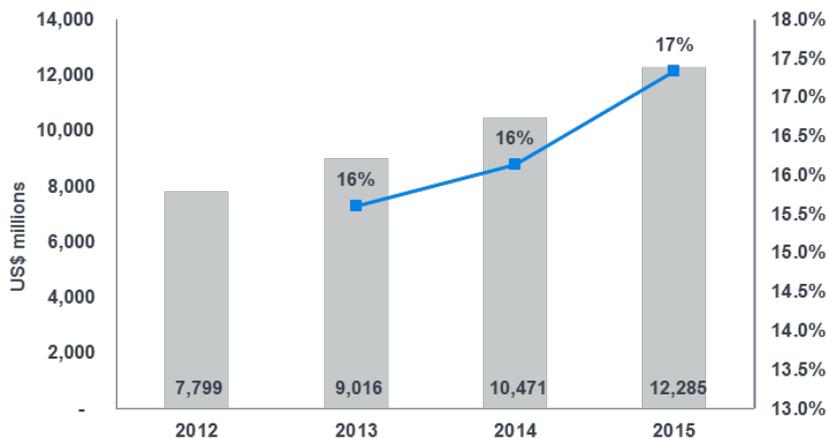
General Takaful represents 83% of the global Takaful market, with GWC of US\$12.3 billion in 2015, making up 94% of the total Takaful market in the GCC and 44% of the total market elsewhere. The industry exhibited a growth rate of 17% in 2015 (compared with 16% in 2014), as illustrated in Figure 13.

FIGURE 12: GLOBAL GENERAL TAKAFUL GWC AND GROWTH (US\$)



Source: Milliman analysis of industry data

FIGURE 13: GLOBAL GENERAL TAKAFUL GWC AND GROWTH (US\$)



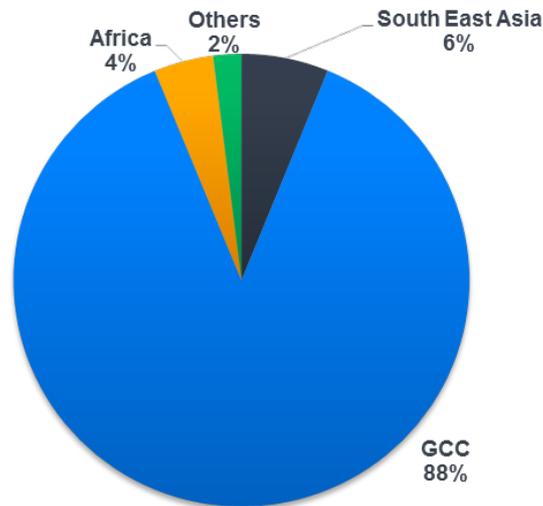
Source: Milliman analysis of industry data

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 to 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 a significant proportion of uninsured Muslims in the region.

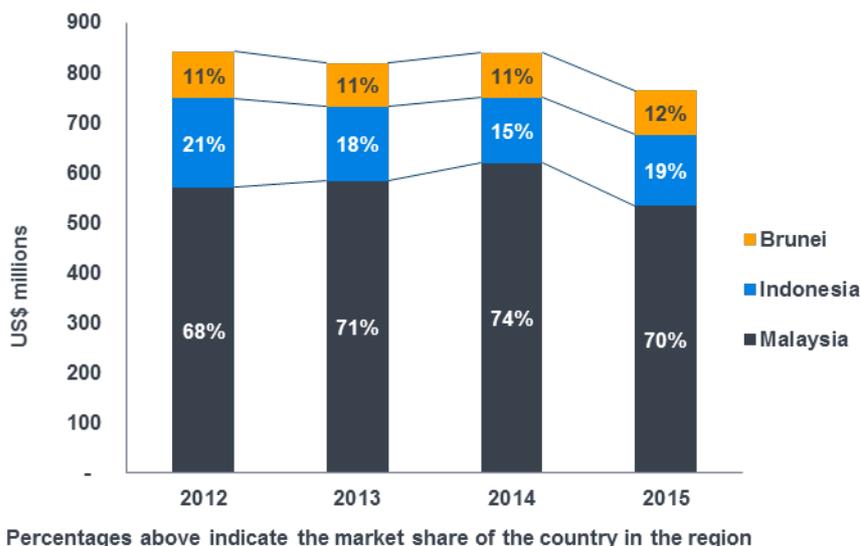
FIGURE 14: % OF GENERAL TAKAFUL GWC BY KEY REGIONS IN 2015 (US\$)



Source: Milliman analysis of industry data. Figures may not be additive due to rounding.

Figure 15 shows that 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.

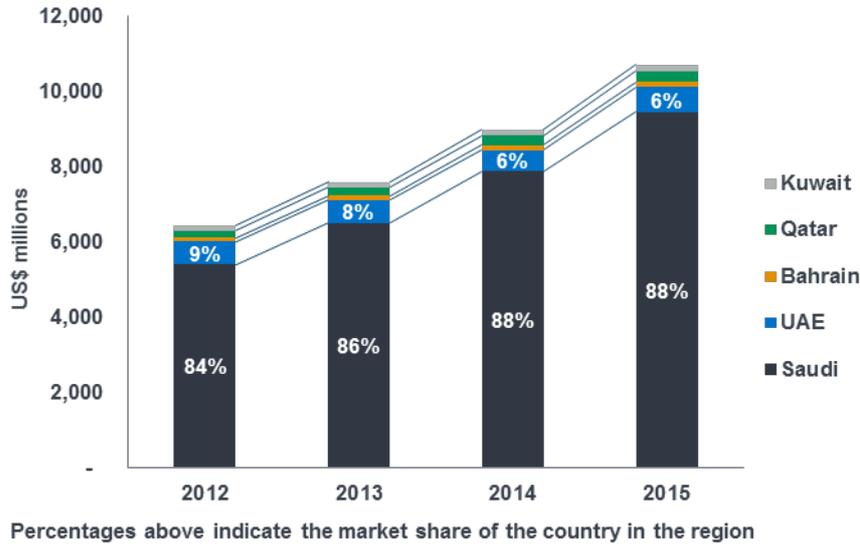
FIGURE 15: GENERAL TAKAFUL GWC IN SOUTH EAST ASIA (US\$)



Source: Milliman analysis of industry data. Figures may not be additive due to rounding.

Figure 16 shows that 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.

FIGURE 16: GENERAL TAKAFUL GWC IN GCC (US\$)



Source: Milliman analysis of industry data. Figures may not be additive due to rounding.

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 with its family Takaful business. These composites will be required to split their licenses in 2018, which could prove to be a watershed moment from which companies will either fall by the wayside or emerge as stronger and more serious competitors to conventional companies. In Indonesia, general Takaful is largely non-existent despite the large size of the 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.

## 7. TAKAFUL MARKET PENETRATION

### INTRODUCTION

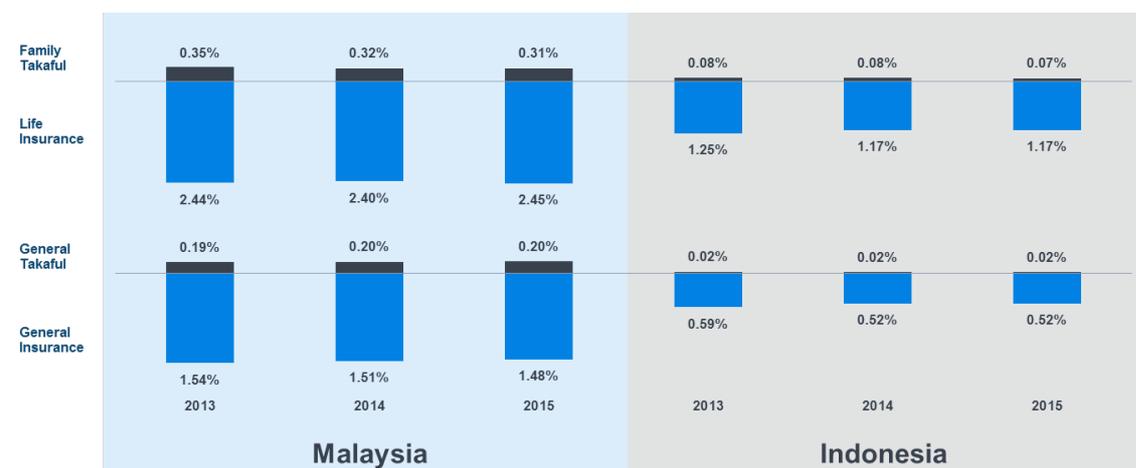
This section sets out the market penetration rates for Malaysia, Indonesia and the GCC countries. Market penetration rate is a metric often used to indicate the level of development of the insurance sector within a given country. In our analysis, the rates are given separately for Takaful and conventional insurance business, and further split between family and general Takaful business. The penetration rate is defined as GWP or GWC as a percentage of gross domestic product (GDP).

### SOUTH EAST ASIA

In Malaysia and Indonesia, as shown in Figure 17, the life insurance and family Takaful penetration rates are higher than those for general insurance and general Takaful, respectively. For Malaysia, the market penetration rate for family Takaful is 50% 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 a 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 market penetration by targeting the needs of the predominantly Muslim mass market.

FIGURE 17: PENETRATION RATES FOR MALAYSIA AND INDONESIA



Source: Milliman analysis of industry data

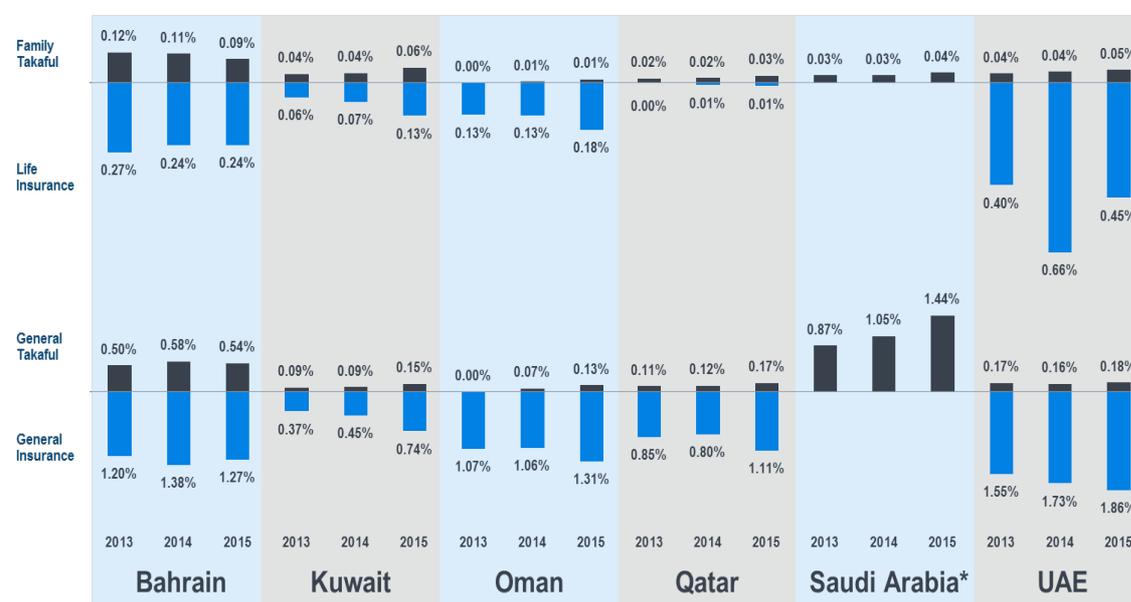
**GCC**

In contrast, in all of the GCC countries, life insurance and family Takaful penetration rates are much lower than those observed for general insurance and general Takaful. Similarly, the Takaful penetration rates are much lower than the conventional insurance penetration rates, as demonstrated in Figure 18.

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.

**FIGURE 18: PENETRATION RATES FOR GCC**



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

Source: Milliman analysis of industry data

## 8. FINANCIAL INSIGHTS: MALAYSIA

### OVERVIEW

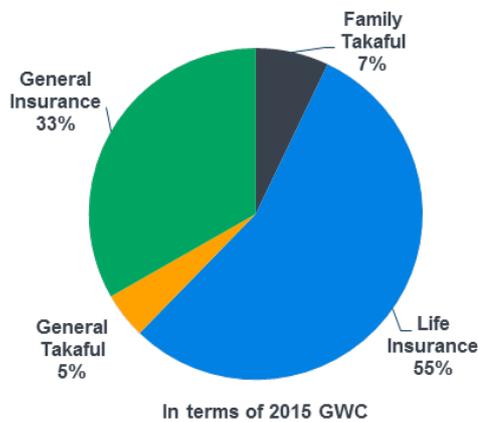
The market share of the Takaful industry in Malaysia is 12% of the total conventional insurance and Takaful market in terms of total GWC in 2015, as can be seen in Figure 19.

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.

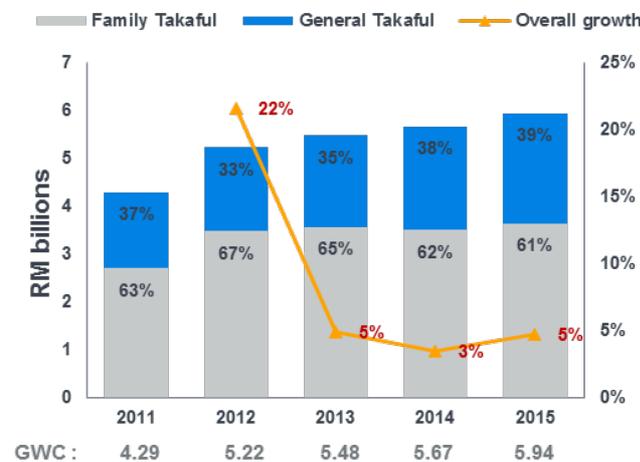
FIGURE 19: TOTAL CONVENTIONAL INSURANCE AND TAKAFUL INDUSTRY IN RM



Source: Milliman analysis of industry data. Figures may not be additive due to rounding.

The family Takaful market dominates the Malaysian Takaful industry, and has accounted for around 60% of the market share for the past five years (see Figure 20). 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).

FIGURE 20: TAKAFUL GWC AND GROWTH IN RM BILLIONS

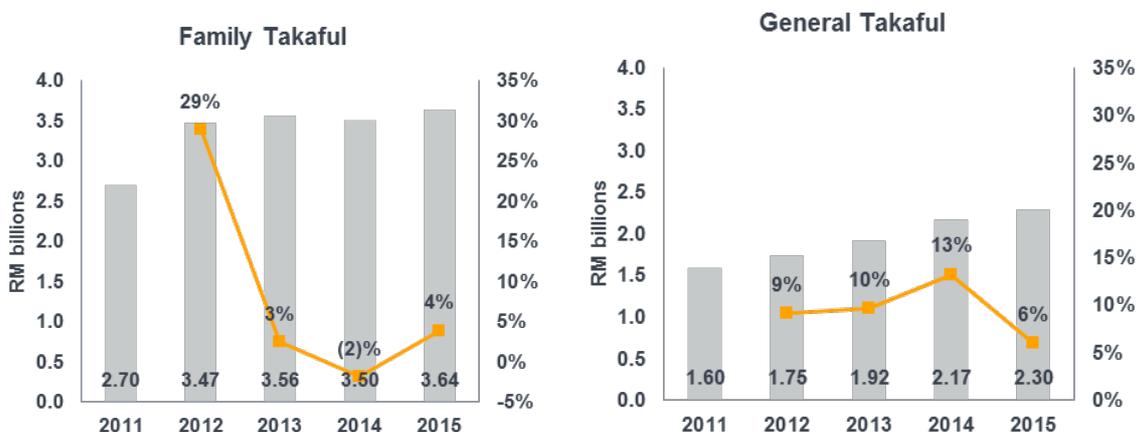


Source: Milliman analysis of industry data. Figures may not be additive due to rounding.

**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 market matures, growth has diminished from the high levels witnessed in 2012 (as shown in Figure 21).

**FIGURE 21: FAMILY AND GENERAL TAKAFUL GWC AND GROWTH IN RM BILLIONS**



Source: Milliman analysis of industry data. Figures may not be additive due to rounding.

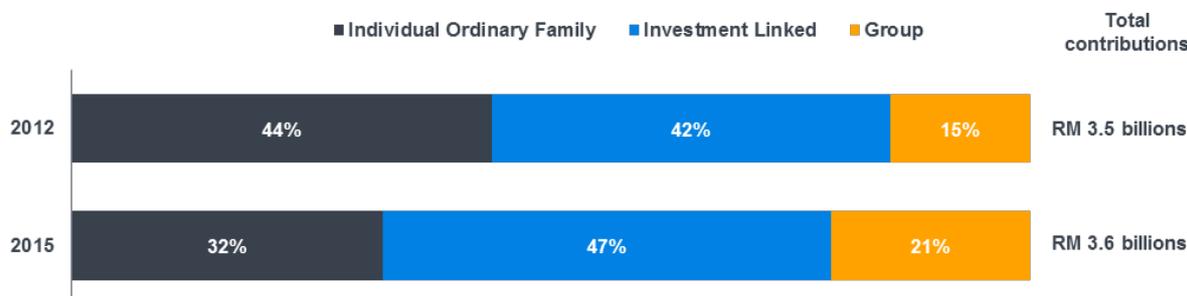
**OVERVIEW OF FAMILY TAKAFUL MARKET**

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 Figure 22. 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 declining in terms of new business sales, from 44% in 2012 to 32% in 2015, due to higher capital requirements of such products under RBCT.

**FIGURE 22: FAMILY TAKAFUL CONTRIBUTIONS IN 2012 AND 2015 BY PRODUCT TYPE IN RM**



Source: Milliman analysis of industry data. Figures may not be additive due to rounding.

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.

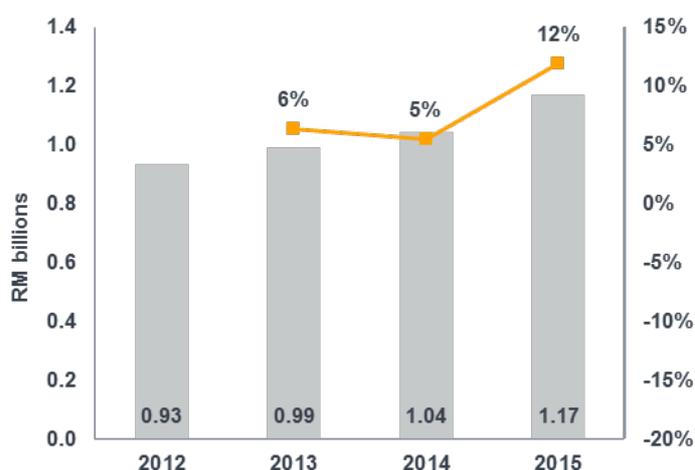
For the family Takaful market, sales via agency continue to dominate, followed by an increasing proportion of sales via bancaTakaful. With the recent phased implementation of the Life Insurance and Family Takaful (LIFE) Framework, the regulators are encouraging the growth of non-agency channels including bancaTakaful and direct channels.

**FAMILY TAKAFUL NEW BUSINESS GROWTH TREND**

For the family Takaful industry, in terms of new business 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. This is shown in Figure 23.

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. However, as at April 2017, market news reported that negotiations have been discontinued.

**FIGURE 23: FAMILY TAKAFUL NEW BUSINESS ACE IN RM BILLIONS**



Source: Milliman analysis of industry data

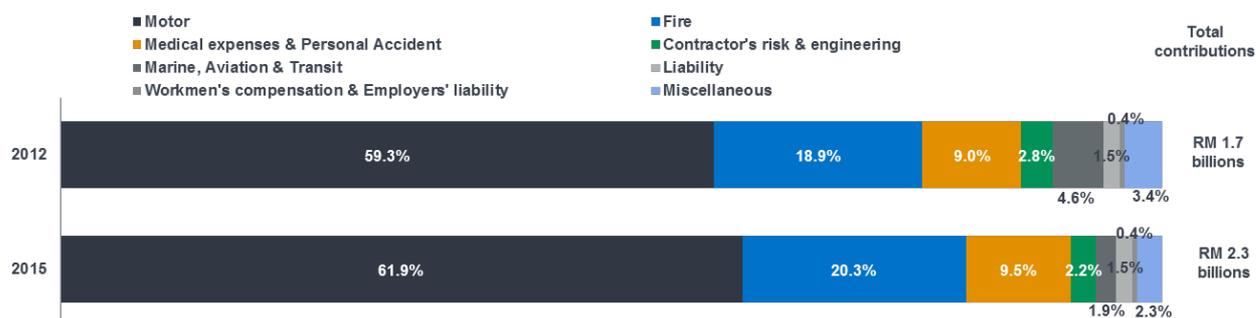
## OVERVIEW OF GENERAL TAKAFUL MARKET

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 in Figure 24.

The main distribution channel for general Takaful business in Malaysia is agency, followed by bancaTakaful and direct marketing.

FIGURE 24: GENERAL TAKAFUL CONTRIBUTIONS IN 2012 AND 2015 BY LINE OF BUSINESS IN RM



Source: Milliman analysis of industry data. Figures may not be additive due to rounding.

## FINANCIAL RATIO ANALYSIS

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

COMPOSITE TAKAFUL OPERATORS AVERAGE RATIOS*	2013	2014	2015
Average commission ratio (% of GWC)	13%	12%	13%
Average expense ratio (% of GWC)	14%	14%	16%

(\* Note: These ratios include both family and general Takaful businesses)

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 incurred as a percentage of net earned contributions)

Source: Milliman analysis of industry data

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% to 13% between 2013 and 2015. The expense ratio is relatively stable at 14% to 16% for the same period. However, these figures may not fully reflect the general Takaful industry because we are unable to segregate the figures between family and general Takaful business. In particular, as composites, the general Takaful business is able to leverage on the cost savings achieved from the economies of scale arising from the combined family and general Takaful businesses, thus demonstrating a lower expense ratio compared with standalone family or general Takaful entities.

The reinsurance ratio or 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:

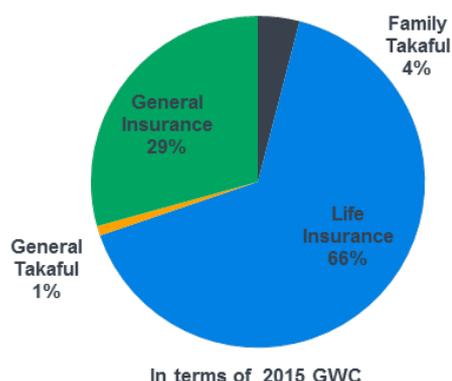
- Challenge to grow the general Takaful business to service the minimum paid-up capital of RM100 million (circa US\$23 million), given the requirement to split composites by 2018.
- Limited product innovation and differentiation relative to conventional counterparts.
- Challenges with unit-linked business, 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 resources, particularly with talent drain occurring across the industry.

## 9. FINANCIAL INSIGHTS: INDONESIA

### OVERVIEW

The size of the Syariah<sup>8</sup> 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 contributions, as shown in Figure 25.

FIGURE 25: TOTAL CONVENTIONAL INSURANCE AND TAKAFUL INDUSTRY



Source: Milliman analysis of industry data

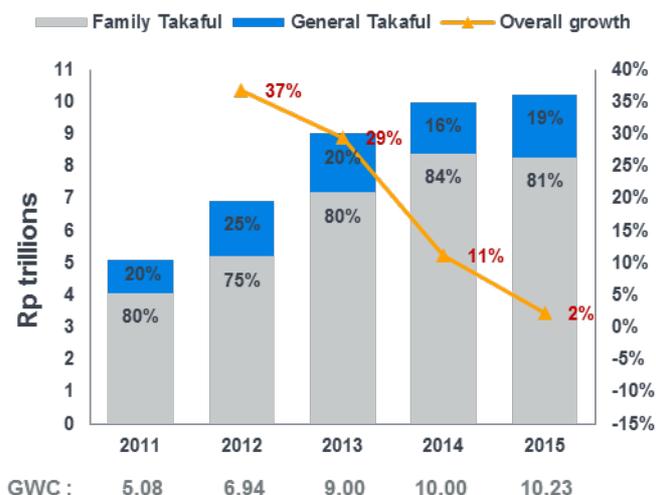
The Indonesian rupiah has depreciated by 30% relative to the US dollar between 2012 and 2015. Hence, we observed a negative growth rate in Takaful industry when analysing the growth in US dollar terms, thus masking the true underlying growth trends. In reality, the Indonesian Takaful market continues 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 in Figure 26). 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 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.

<sup>8</sup> The market is referred to as Syariah business in Indonesia. For simplicity, we have referred to the Syariah business in Indonesia as Takaful.

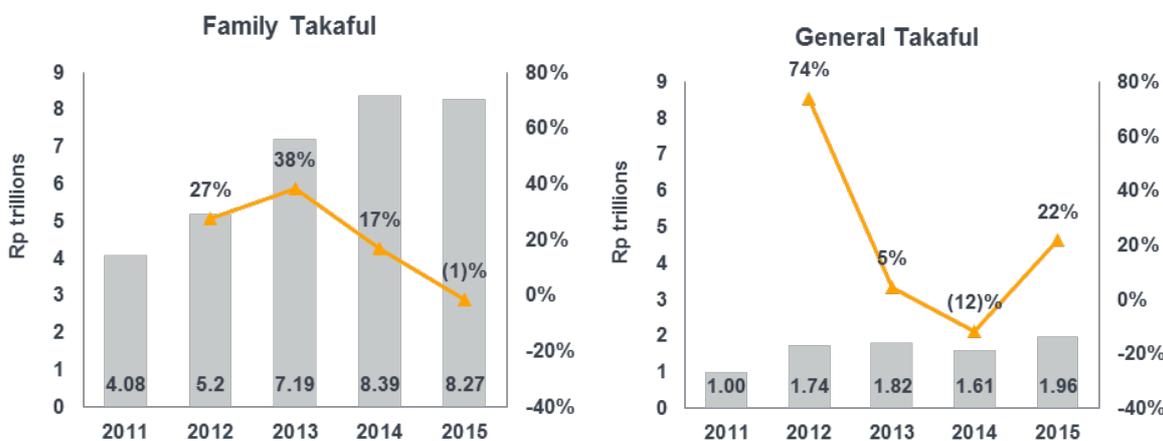
FIGURE 26: TAKAFUL GWC AND GROWTH IN RP TRILLIONS



Source: Milliman analysis of industry data

As shown in Figure 27, 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 strong growth of 22%.

FIGURE 27: FAMILY AND GENERAL TAKAFUL GWC AND GROWTH IN RP TRILLIONS



Source: Milliman analysis of industry data

There is an expectation that the latest regulation 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 market activity in the future. Based on market reports, as at the date of this report, several companies with a sizeable Syariah business have already submitted their application to spin off their Syariah units. Three companies—namely Jasindo Syariah, Reindo Syariah and Bumiputera Syariah—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 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 TAKAFUL MARKET

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 agency<sup>9</sup>. 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 with 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 contributions<sup>10</sup>, 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.

## OVERVIEW OF GENERAL TAKAFUL MARKET

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.

## 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
<b>Average reinsurance ratio (% of GWC of tabarru fund*)</b>	10%	11%	11%
<b>Average claim ratio**</b>	56%	51%	41%
<b>Average commission ratio (% of GWC of tabarru fund*)</b>	16%	19%	19%
<b>Average expense ratio (% of GWC of tabarru fund*)</b>	12%	15%	15%
<b>Average return on equity</b>	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.

Source: Milliman analysis of industry data

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.

<sup>9</sup> Islamic finance news roundtable, <http://islamicfinancenews.com/contents/roundtables/indonesia/Indonesia.pdf>

<sup>10</sup> BAPEPAM and OJK report

## 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)<sup>11</sup> combined with expected good GDP growth rate indicates 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 harmonised 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 with 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 with 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 is largely underpenetrated.
- Lower returns are typically observed underlying Takaful business as compared with those 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 resources.

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<sup>11</sup> Statistics Indonesia, Population Census 2010

## 10. FINANCIAL INSIGHTS: GCC COUNTRIES

### OVERVIEW

The analysis for the GCC countries are split into the following:

- GCC countries excluding Saudi Arabia
- Saudi Arabia

Saudi Arabia is considered separately given that it adopts a cooperative structure rather than Takaful, as well the fact that it is the largest Shariah-compliant market in the world.

### GCC (EXCLUDING SAUDI ARABIA – OVERVIEW OF TAKAFUL INDUSTRY)

For the total GCC market (excluding Saudi Arabia), the Takaful market comprises 12% of the total insurance and Takaful market, as shown in Figure 28.

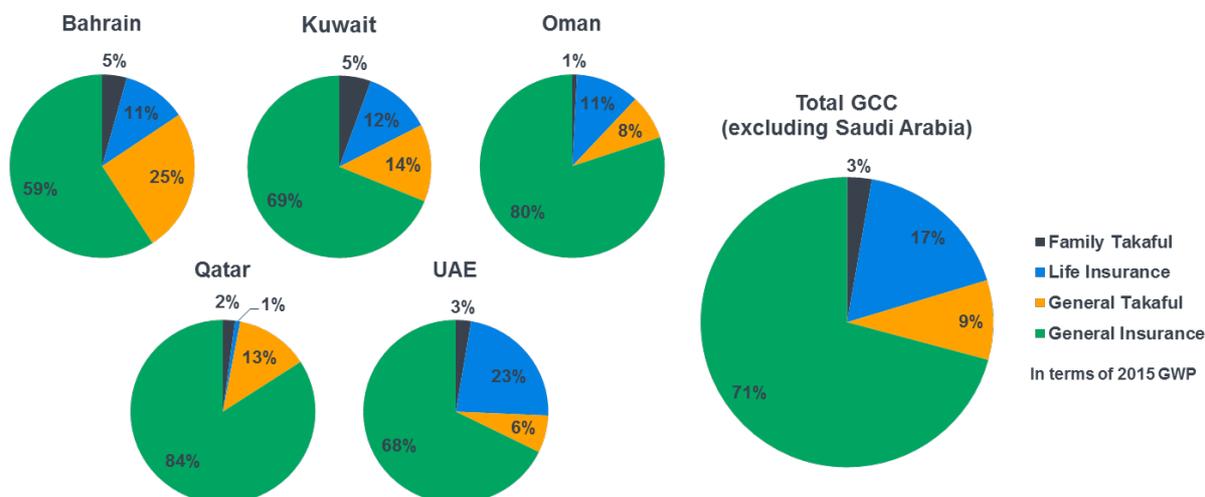
The general Takaful dominates the region with 76% of the total Takaful market.

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
<b>Number of conventional and Takaful companies in 2015</b>	36	36	23	13	60	168
<b>Number of Takaful companies in 2015</b>	6	13	2	6	12	39

Source: Milliman analysis of industry data.

FIGURE 28: TOTAL CONVENTIONAL INSURANCE AND TAKAFUL INDUSTRY



Source: Milliman analysis of industry data. Figures may not be additive due to rounding.

### GCC (EXCLUDING SAUDI ARABIA) - GROWTH TREND

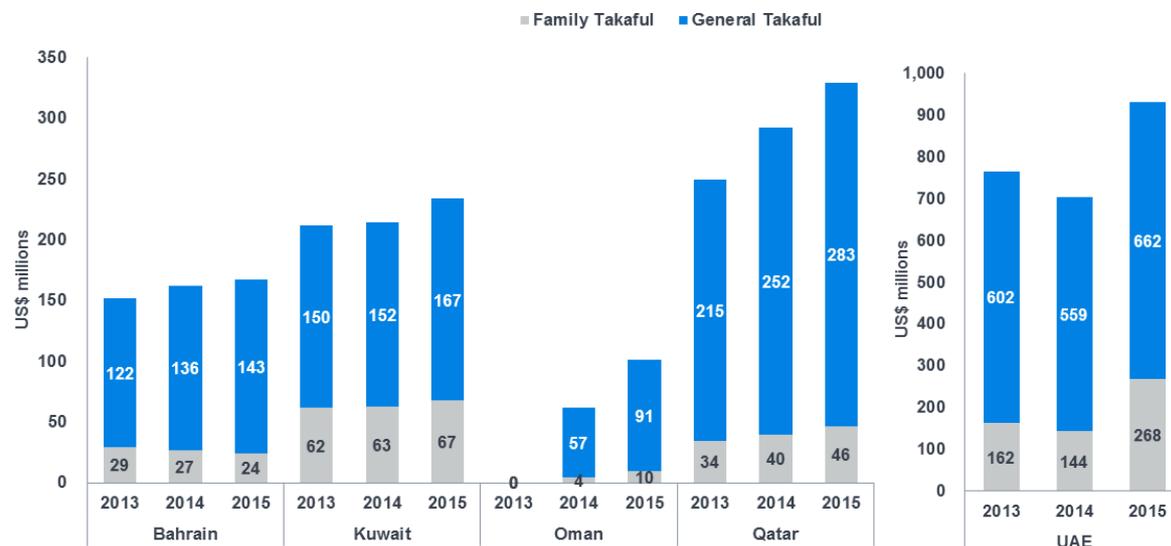
As shown in Figure 29, UAE is the largest Takaful market in terms of GWC among these GCC countries (excluding Saudi Arabia).

All the countries shown in Figure 29 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.

FIGURE 29: TAKAFUL GWC IN US\$ MILLIONS



Source: Milliman analysis of industry data

**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
<b>Average reinsurance ratio (% of GWC)</b>	44%	42%	43%
<b>Average claim ratio*</b>	64%	73%	86%
<b>Average commission ratio (% of GWC)</b>	11%	11%	12%
<b>Average expense ratio (% of GWC)</b>	11%	17%	15%
<b>Average return on equity</b>	3%	3%	1%

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

Source: Milliman analysis of industry data

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% to 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 the 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 ratios 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 are 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 ratios, 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.

#### SAUDI ARABIA – OVERVIEW

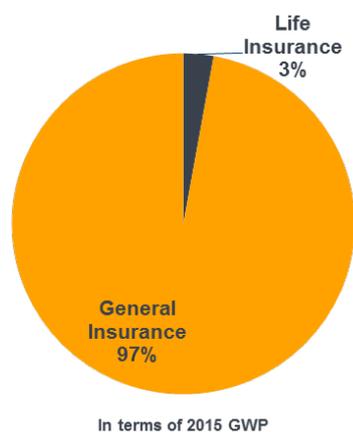
In 2015, there were 34 insurance companies<sup>12</sup> operating in Saudi Arabia, with the top three companies contributing to around 50% of the market share in terms of total premiums.

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 Figure 30 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.

FIGURE 30: TOTAL INDUSTRY



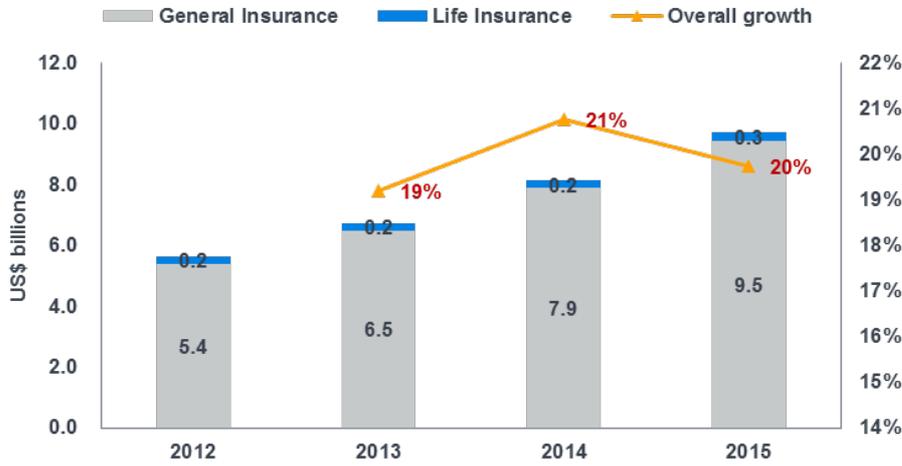
Source: Milliman analysis of industry data. Figures may not be additive due to rounding.

<sup>12</sup> We have assumed all companies operating in the Saudi Arabia market to be Shariah-compliant

**SAUDI ARABIA - GROWTH TREND**

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 is illustrated in Figure 31. This market is the largest (Shariah-compliant) general insurance market in the world.

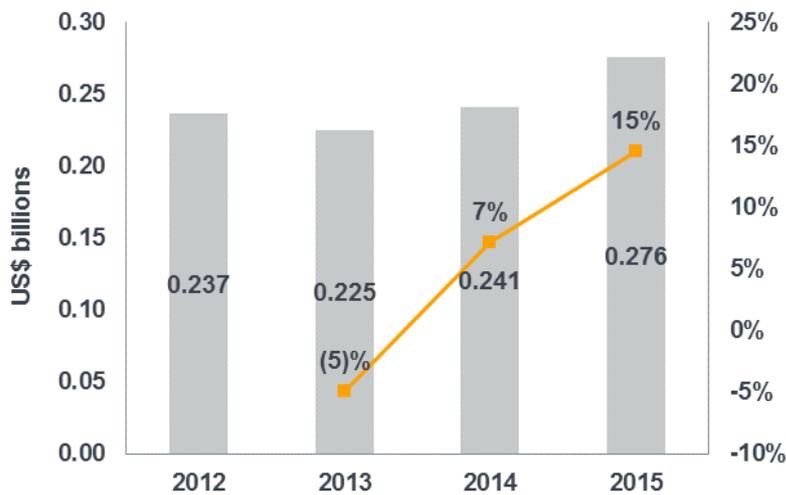
**FIGURE 31: INSURANCE GWP IN US\$ BILLIONS**



Source: Milliman analysis of industry data

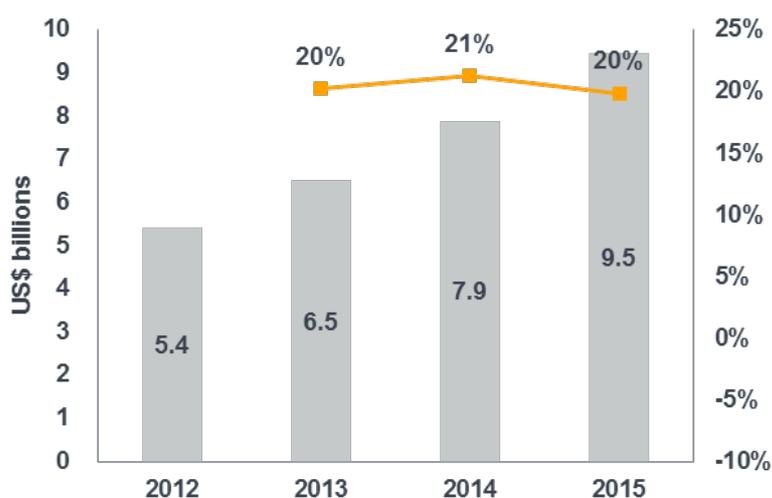
As shown in Figure 32 below, the GWP of the life insurance business has also achieved a good growth rate of 15% in 2015. However, the market size is significantly smaller when compared with the general insurance business, given the generous state benefits provided, which drive down the demand for life insurance business.

**FIGURE 32: LIFE INSURANCE GWP IN US\$ BILLIONS**



Source: Milliman analysis of industry data

FIGURE 33: GENERAL INSURANCE GWP IN US\$ BILLIONS



Source: Milliman analysis of industry data

#### SAUDI ARABIA - FINANCIAL RATIO ANALYSIS

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

INSURANCE INDUSTRY AVERAGE RATIOS	2013	2014	2015
<b>Average reinsurance ratio (% of GWP)</b>	27%	20%	17%
<b>Average claim ratio*</b>	93%	82%	80%
<b>Average commission ratio (% of GWP)</b>	6%	6%	6%
<b>Average expense ratio (% of GWP)</b>	12%	11%	12%
<b>Average return on equity</b>	(15)%	7%	7%

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

Source: Milliman analysis of industry data

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, and this is most likely to be a result of the regulations on commissions in Saudi Arabia. In addition, it is noted that the expense ratios are lower when compared with 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.

## OPPORTUNITIES AND CHALLENGES

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

- A largely underpenetrated market like 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 competes 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 the shareholders' fund appearing 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 reinsurer players, with a large proportion of businesses being ceded to reinsurers.
- The lack of expertise and skilled human resources in the market.

## 11. KEY REGULATORY UPDATES

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

- Malaysia
- Indonesia
- Bahrain
- UAE
- Saudi Arabia

A summary of the comparative study is shown in Appendix A. The key observations on the comparative study of the regulations covering these major Takaful markets are summarised below:

- **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 an 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.

- **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 model 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 activities. Overall there is some convergence towards the Takaful models outlined by AAOIFI in most markets, particularly for new Takaful jurisdictions.

- **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 that the business tends to be heavily lopsided towards general Takaful business, and thus splitting the entities would result in difficulties in growing 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 considered in Appendix A 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 and deciding 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 requirements 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 the likely higher capital requirements and operational separation involved.

Other countries that allow Takaful windows are Kenya (based on the draft Takaful regulations) and Pakistan (not shown in Appendix A). 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 playing field.

- **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 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 their sales illustrations to maintain a 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 qard**

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 and 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 de-tariffication 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, instituting sound actuarial pricing for motor and medical lines of business and putting in place regulations that will protect the policyholders' interest.

A summary of the new regulations in the key Takaful markets as well as upcoming Takaful markets is given in Appendix A.

## 12. OPPORTUNITIES IN RETIREMENT SAVINGS

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

- Malaysia
- Indonesia
- Bahrain
- UAE
- Saudi Arabia

A summary of the retirement savings landscape by markets is shown in Appendix B.

The opportunities and challenges within these markets are summarised below:

### OPPORTUNITIES

#### ▪ **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 are high contribution rates for mandatory retirement savings in the Employees Provident Fund (EPF). 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 (PRS) and annuity contributions until the 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 first there needs to be education on the importance of savings for retirement. In addition, the women's 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

- **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 requirements.

- **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.

In conclusion, there is very limited Takaful product offering in the retirement savings space. The major Takaful markets are also expected to experience an ageing society in the future, thus creating an opportunity for Takaful to meet the challenge of managing financial risk at older ages.

Further details on the retirement landscape by major markets are shown in Appendix B.

## 13. 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 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 - REGULATORY OVERVIEW IN KEY TAKAFUL MARKETS

We have analysed the key regulatory requirements in each of the key Takaful markets, as summarized in the table below.

	MALAYSIA	INDONESIA	BAHRAIN	UAE	SAUDI ARABIA
<b>MARKET SIZE IN 2015</b>	Family Takaful: US\$ 0.85 bn  General Takaful: US\$ 0.53 bn	Family Takaful: US\$ 0.60 bn  General Takaful: US\$ 0.14 bn	Family Takaful: US\$ 0.02 bn  General Takaful: US\$ 0.14 bn	Family Takaful: US\$ 0.27 bn  General Takaful: US\$ 0.66 bn	Life Insurance: US\$ 0.28 bn  General Insurance: US\$ 9.45 bn
<b>MARKET PLAYERS</b>	8 composite Takaful operators  3 pure family Takaful operators	5 fully-fledged family Takaful operators  19 family Takaful windows;  3 fully-fledged general Takaful operators  25 general Takaful windows	6 Takaful companies (3 composites, 1 pure family and 2 pure general)	11 Takaful (all composites writing group life business and only two companies writing long term life business)	34 companies (roughly, 97% of GWP is non-life, 3% life and other saving products)
<b>POPULATION IN 2015<sup>13</sup></b>	31 million	255 million	1.4 million	9.2 million	31.5 million
<b>MARKET PENETRATION IN 2015 (GWP AS A % GDP)</b>	Family Takaful: 0.31% Life insurance: 2.45% General Takaful: 0.20% General insurance: 1.48%	Family Takaful: 0.07% Life insurance: 1.17% General Takaful: 0.02% General insurance: 0.52%	Family Takaful: 0.09% Life Insurance: 0.24% General Takaful: 0.54% General Insurance: 1.27%	Family Takaful: 0.05% Life Insurance: 0.45% General Takaful: 0.18% General Insurance: 1.86%	Life Insurance: 0.04% General Insurance: 1.44 %
<b>REGULATOR</b>	Bank Negara Malaysia (BNM)	Financial Services Authority (OJK)	Central Bank of Bahrain (CBB)	Insurance Authority (IA)	Saudi Arabian Monetary Authority (SAMA)
<b>REGULATORY FRAMEWORK</b>	Risk-Based Capital Framework since 2014.  The Takaful regulations largely mimic the conventional insurance regulations.	Risk-Based Capital (RBC) Framework	Solvency I basis	Risk Based Capital Framework since 2015 (some elements of Solvency I remain)	Solvency I basis

<sup>13</sup> World Bank

	MALAYSIA	INDONESIA	BAHRAIN	UAE	SAUDI ARABIA
<b>PAID-UP CAPITAL</b>	<p>The minimum paid-up capital requirement of Takaful operators is RM100 million (approximately US\$ 23 million).<sup>14</sup></p> <p>The paid-up capital requirement for conventional insurance business is the same.</p>	<p>The minimum paid-up capital<sup>15</sup> of a standalone general/family Takaful operator is Rp100 billion (approximately US\$ 7.2 million).</p> <p>For an insurance company operating Takaful windows, the minimum working capital for a general/family Takaful window is Rp50 billion (approximately US\$ 3.6 million).</p>	<p>CBB issued a Rulebook which outlines the required paid-up capital for insurance and Takaful companies. The paid-up capital is the sum of Tier 1 and Tier 2 capital as outlined below:</p> <p>Tier 1: BHD 1.5 million (US\$ 4 million)</p> <p>Tier 2: BHD 75,000 to BHD 0.5 million (US\$ 200,000 to 1.3 million)</p> <p>CBB classifies Tier 1 capital as highest quality capital that fully meets all essential requirements.</p> <p>Tier 2 is a supplementary capital for specific insurances.</p>	<p>The minimum paid-up capital requirement of any insurance company or Takaful operator is UAE100 million (approximately US\$ 27.2 million).</p>	<p>The minimum paid-up capital requirement of insurers is SAR100 million (approximately US\$ 26.7 million).</p>
<b>TAKAFUL WINDOWS</b>	Not allowed	<p>A large proportion of the Takaful business currently operates via windows.</p> <p>Insurance Law 2014 requires companies to split their Syariah business into a separate entity, within a period of 10 years (i.e., by 2024) or once the Syariah fund is at least 50% of the total insurance fund held, whichever occurs earlier.</p>	Not allowed	Not allowed	Not allowed

<sup>14</sup> BNM policy document BNM/RH/GL004-23 "Risk-Based Capital Framework for Takaful Operators"

<sup>15</sup> OJK policy document "Licensing and Institution of Insurance Companies, Syariah Insurance Companies, Reinsurance Companies and Syariah Reinsurance Companies" (Regulation 67)

	MALAYSIA	INDONESIA	BAHRAIN	UAE	SAUDI ARABIA
<b>TAKAFUL MODEL</b>	Mostly hybrid model (a mixture of wakalah and mudarabah model). Any new Takaful models are subject to regulatory approval. <sup>16</sup>	Mostly mudarabah model.	Wakalah model for underwriting activities and mudarabah model for investment activities.	Wakalah model or a combined wakalah / mudarabah model.	Cooperative model.
<b>ARE COMPOSITES ALLOWED?</b>	Islamic Financial Services Act (IFSA) 2013 requires existing composite Takaful companies to be separated into two separately capitalised legal entities (i.e., family and general) by 2018.	Family and general Takaful business are segregated (i.e., there is no composite Takaful operators).	Composites are allowed, with most Takaful operators being composites	Composites are allowed, with two Takaful operators being composites.	Composites are allowed, where all companies in operation are composites.
<b>COMMISSIONS</b>	Commissions are regulated, <sup>17</sup> with an upcoming partial liberalisation of commissions subject to certain conditions to give companies greater flexibility to manage their expenses with appropriate safeguards to protect consumer interests, and to encourage the growth of non-agency channels.	There is no formal regulation on commissions.	There is no formal regulation on commissions.	Draft regulations specify the maximum commission rates permitted for agents for various product types.	The maximum commission rates permitted for agents under different lines of business are regulated (but how commissions are spread over the term of the policy is not specified).

<sup>16</sup> BNM policy document BNM/RH/GL004-22 "Guidelines on Takaful Operational Framework"

<sup>17</sup> BNM policy document JPIT/GPT5 "Guidelines on Operating Costs of Family Takaful Business"

	MALAYSIA	INDONESIA	BAHRAIN	UAE	SAUDI ARABIA
<b>WAKALAH FEE</b>	<p>No explicit regulation on the level of wakalah fee, but it is implicitly regulated as companies are required to provide to the regulators an actuarial certification of new products.</p> <p>There is a requirement to disclose the wakalah fees in the sales illustration.</p>	<p>There is some regulation regarding wakalah fee, (which is called Ujrah in Indonesia).<sup>18</sup></p>	<p>It is defined as a fixed upfront fee, which may be expressed as a percentage of contributions.</p> <p>The wakalah fee, once fixed, must not be adjusted during the reporting period.</p> <p>No performance/incentive fees are allowed to be paid to the shareholders/Takaful operator.</p>	<p>For yearly renewable policies, a maximum wakalah and mudarabah fee of 35% of gross written contribution can be charged. For long term products, the wakalah fee is determined based on the actuary's advice.</p>	<p>Not applicable given the cooperative model adopted in the country.</p>
<b>SALES/DISTRIBUTION CHANNELS</b>	<p>Family Takaful - Life Insurance and Family Takaful (LIFE) Framework issued by BNM in November 2015 aims to diversify distribution channels within the conventional life and family Takaful industry beyond the agency channel.</p>	<p>New regulations on bancassurance came into effect on 1 September 2016.<sup>19</sup></p>	<p>No specific regulations</p>	<p>No specific regulations.</p>	<p>No specific regulations.</p>
<b>PRODUCTS DISCLOSURE</b>	<p>Formal regulations on insurance and Takaful product disclosure.<sup>20</sup></p>	<p>Formal regulations on insurance and Takaful product disclosure.</p>	<p>Both the wakalah and mudarabah fees must be clearly disclosed to the participants of the Takaful fund(s).</p>	<p>There is no formal regulations on product disclosure, although draft regulations are being discussed to develop full product disclosures in line with global best practices.</p>	<p>Formal regulations on product disclosure.</p>

<sup>18</sup> OJK policy document No.69/POJK.05/2016 "Business Operations of Insurance Companies, Takaful Operators, Reinsurance Companies, and Retakaful Operators.

<sup>19</sup> OJK policy document No.32/SEOJK.05/2016 "Bancassurance"

<sup>20</sup> BNM policy document BNM/RH/STD029-10 "Introduction of New Products by Insurers and Takaful Operators"

	MALAYSIA	INDONESIA	BAHRAIN	UAE	SAUDI ARABIA
<b>QARD</b>	<p>Qard is fully regulated since 2013.<sup>21</sup> In addition, recently in August 2016, the regulators had issued an extensive policy document on the treatment of qard which will come into effect on 31 July 2018.</p> <p>There is a requirement for the Takaful operator to provide qard in the event of a deficit in the Takaful funds, with the qard being repaid from surplus arising in the Takaful funds.</p> <p>Companies are required to have a policy on qard repayment such as repayment period, when qard is deemed to be irrecoverable and thus resulting in a conversion of qard into an outright transfer and the corresponding treatment of surplus distributions (e.g., whether it will be continued, reduced or put on hold), taking into account participants' reasonable expectations, and the long-term solvency requirements of the Takaful funds.</p>	<p>In 2016, the regulators have introduced new regulations specifying the treatment of qard.<sup>22</sup></p> <p>There is a requirement for the Takaful operator to provide qard when the Takaful fund is in deficit or if the fund's financial position is below its solvency requirements.</p> <p>Companies are not allowed to share underwriting surplus if the Takaful fund is still in a qard position.</p> <p>Any dividend payment also needs to take into account the companies' ability to provide qard in the future.</p>	<p>Regulations for qard were introduced in 2007, with updates in 2008 and 2014.</p> <p>Regulations state that any income generated from the assets forming part of the qard, is solely for the benefit of the participants' fund, and should be recorded as investment income of the participants' fund, but subject to a mudarabah fee.</p> <p>The amount of qard should be written off and/or repaid over a period not exceeding five years and disclosed as an off-balance sheet item.</p>	<p>The entire deficit in participant fund needs to be allocated to shareholders fund.</p>	<p>Saudi Arabia follows the cooperative model and there are no requirements for qard.</p>

<sup>21</sup> BNM policy document BNM/RH/GL004-22 "Takaful Operational Framework" and BNM/RH/PD028-7 "Qard"

<sup>22</sup> OJK policy document No.72/POJK.05/2016 "Guidelines on Financial Condition of Takaful and Retakaful Operators"

	MALAYSIA	INDONESIA	BAHRAIN	UAE	SAUDI ARABIA
<b>KEY NEW REGULATIONS</b>	<ul style="list-style-type: none"> <li>The phased implementation of the LIFE Framework (issued in November 2015) is ongoing, with the aim to promote innovation and a more competitive market, supported by higher level of professionalism and transparency in the insurance and Takaful industry.</li> <li>Concept paper on direct distribution channels for pure protection products (issued in October 2016) requires life insurers and Takaful operators to offer commission-free standalone pure protection products through at least one direct channel.</li> <li>Internal Capital Adequacy Assessment Process (ICAAP) for Takaful Operators (effective January 2017) requires Takaful operators to actively manage its capital adequacy taking into account its business strategies, risk profile and overall financial resilience.</li> <li>For general insurance and Takaful industry, the progressive removal of tariffs of premiums for motor and fire business is</li> </ul>	<ul style="list-style-type: none"> <li>In 2015, the regulators issued new regulation which provides comprehensive provisions on insurance products and the marketing of products. It also introduces the concept of micro insurance products.</li> <li>New regulation on the 'Self-Retention and Domestic Reinsurance Support' was introduced effective January 2016 with the objective to increase the use of domestic reinsurance / Retakaful.</li> <li>On 30 August 2016, OJK issued Circular Letter No. 32/SEOJK.05/2016 'Bancassurance' regarding requirements to be met by insurance companies, Takaful operators and banks in bancassurance relationship.</li> <li>The regulations on the 'Licensing and Institution of Insurance Companies, Syariah Insurance Companies, Reinsurance Companies and Syariah Reinsurance Companies' (Regulation 67) came into effect in December 2016. The key provisions include the obligations and due dates to comply with Indonesian shareholding requirements, divestment of Syariah unit (i.e., Takaful window) and the single presence policy, and the increased minimum capital requirements for (re)insurers and (re)Takaful operators.</li> </ul>	<ul style="list-style-type: none"> <li>In 2015, the new Operational and Solvency Framework for the Takaful and Retakaful Industry was introduced with the aim to strengthen the solvency position of Takaful companies, enhance operational efficiency of the business and safeguard interest of all stakeholders. The new regulations were developed based on the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) standards.</li> <li>The new regulations impose stringent requirements, including the need for capital injections to meet any deficiencies in policyholders' funds, the strengthening of financial reporting requirements and improving transparency.</li> <li>There is also an increased focus on domestic operations as the framework is expected to encourage new Takaful operators to enter the market whilst existing operators should be better placed to compete against the conventional counterparts.</li> <li>It also important to note that the Rulebook published by CBB prohibit the formation of any new conventional composite insurance companies.</li> </ul>	<ul style="list-style-type: none"> <li>In January 2015, new financial regulation was published for the insurance and Takaful industry, which covers a range of operating requirements relating to solvency, investment and corporate governance. The regulation was developed based on AAOIFI standards for Shariah-compliance. There is also a requirement for a Shariah Oversight Committee for Takaful companies. This has resulted in improved Shariah-compliance in the market.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>In 2015, the following new regulations were introduced: <ul style="list-style-type: none"> <li>The Insurance Corporate Governance Regulations which aim to set high standards of corporate governance within the insurance industry in line with international best practices.</li> <li>The Surplus Distribution Policy which contains the general principles for distribution of surplus to policyholders, which outlines the requirement that 10% of net surplus shall be distributed to policyholders directly or via premium reduction in the following year. Policyholders are entitled to a surplus distribution if the loss ratio (gross claims over gross earned premiums) is less than 70% at a policy level. A written approval is required from the regulator prior to surplus distribution.</li> <li>In 1 January 2017, the Actuarial Work Regulation for Insurance and/or Reinsurance Companies came into effect. The key objective is to promote high standards of actuarial practices, and specifies the procedures for appointing an actuary</li> </ul> </li> </ul>

MALAYSIA	INDONESIA	BAHRAIN	UAE	SAUDI ARABIA
<p>expected to commence in 2017.<sup>23</sup></p>			<ul style="list-style-type: none"> <li>• Since 30 June 2016, all sponsors or employers are required to provide health insurance for employees and their dependents. This led to significant demand of health insurance in the region.</li> <li>• In November 2016, the regulator issued a circular for consultation to the life insurance and Takaful industry. The key proposed changes include a revised commission structure, increased transparency in product disclosures, protection of policyholder values and Takaful specific regulations (e.g. limits on wakalah fees). These new guidelines is expected to improving market practices in UAE.</li> <li>• The regulator (IA) has also implemented a new vehicle insurance tariffs system, effective 1 January 2017, intended to create a more level playing field for the insurance companies.</li> </ul>	<p>and outlines the key roles and responsibilities for the Appointed Actuary.</p> <ul style="list-style-type: none"> <li>• SAMA is standardising motor claims procedures for processing and settling compulsory motor third party insurance claims, effective 2017.</li> <li>• SAMA has also issued a circular in which it has asked motor insurance companies to reduce the premiums for motor policies where No Claim Discount is applicable by 10%-30%. The circular also discuss the Actuarial Pricing and Underwriting documentation required by SAMA.</li> </ul>

<sup>23</sup> BNM policy document BNM/RH/PD029-8 "Phased Liberalisation of Motor and Fire Tariffs"

## APPENDIX B - RETIREMENT LANDSCAPE BY COUNTRY

A summary of the retirement savings landscape for each of the major Takaful markets is described below:

	MALAYSIA	INDONESIA	BAHRAIN / UAE / SAUDI ARABIA
<b>MAIN RETIREMENT PLANNING VEHICLES</b>	<ul style="list-style-type: none"> <li>• <b>Employees' Provident Fund (EPF):</b> This is the mandatory retirement plan for private sector employees and some public sector employees. It is a defined contribution (DC) scheme which requires at least 20% of monthly salary contribution from employers and employees. A lump sum is provided at age 55.</li> <li>• <b>Private schemes such as Private Retirement Scheme (PRS).</b> These schemes are voluntary long-term investment scheme offering a range of funds for its members, intended to supplement the EPF. Benefit is provided as a lump sum at retirement age.</li> <li>• <b>Civil Service Pension Scheme:</b> This is a final salary pension scheme available only for public sector employees in Malaysia, which provides lifetime annuity benefits.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Taspen:</b> This is a mandatory defined benefit scheme for government officials, which provides a monthly pension and a lump-sum old age savings benefit upon reaching retirement age.</li> <li>• <b>Social Security Administrator (BPJS):</b> This is a mandatory retirement plan for non-government officials. BPJS provides a monthly pension and lump sum old age savings benefit once they've reached retirement age. Pension payments paid monthly (lump sum available to some extent) based on defined benefit (DB) scheme. Old-age savings are paid in lump sum based on DC scheme.</li> <li>• <b>Voluntary schemes such as employer's pension fund (DPKK) or a financial institution pension fund (DPLK).</b> The benefit is paid as a lump sum, but the government requires a large percentage of the lump sum to be used to purchase annuities (applies to employees who enter the workforce after 1992).</li> </ul>	<ul style="list-style-type: none"> <li>• <b>State-managed occupational pensions:</b> Citizens working in the formal economy are able to participate in generous defined-benefit pension schemes. Members and employers make contributions throughout their career. The ultimate financing responsibility resides with the state.</li> <li>• <b>End-of-service benefits (EOSBs):</b> This is a lump sum paid to employees by employers upon exiting employment. Access to the funds is immediate (i.e., non-deferred). The benefit formula and eligibility are specified by local labour law. There is no requirement for an employer to fund the benefit in advance and as such this is not common at present.</li> <li>• <b>Company-administered pension plans:</b> Company-administered defined-benefit pension schemes are rare (but there are notable exceptions). Company-administered DC schemes are more common but not ubiquitous.</li> </ul>
<b>PRODUCTS OFFERED IN THE MARKET</b>	<ul style="list-style-type: none"> <li>• Insurance and Takaful products offered in the market typically offer a lump-sum payout at retirement, or fixed annuities (i.e. annuities that are paid out for a fixed term, sometimes with an additional lump sum at maturity).</li> <li>• For example, HSBC Amanah Takaful offers Takaful retirement plans with non-guaranteed annuities up to age 75 and a non-guaranteed payout upon maturity.</li> </ul>	<ul style="list-style-type: none"> <li>• Products in the market are mainly paid out as lump sums at retirement /earlier terminations.</li> </ul>	<ul style="list-style-type: none"> <li>• Many local/international insurers offer platforms for personal/occupational retirement saving and wealth management.</li> <li>• There are nascent specialist private pension providers.</li> <li>• Many expatriates directly/indirectly invest in products from their home country—and in some cases may be able to participate in their home country state pension system.</li> </ul>

	MALAYSIA	INDONESIA	BAHRAIN / UAE / SAUDI ARABIA
<b>MARKET GAP</b>	<ul style="list-style-type: none"> <li>• Although Malaysia has one of the highest savings rate for retirement due to the mandatory contributions under EPF, these savings are provided as a lump sum at age 55 or at retirement age. There is no requirement to annuitise these savings.</li> <li>• The pension products available in the market provide a lump sum at retirement (which leave retirees the risk of spending all the money too quickly) or a fixed term annuity (similarly, the product does not provide any financial protection at the older ages where it is needed the most).</li> <li>• Hence there are no products in the market that offer full longevity protection (e.g. lifetime annuities). Very few Takaful companies offer retirement products. Thus Takaful retirement products are largely non-existent.</li> </ul>	<ul style="list-style-type: none"> <li>• A large portion of the population is still not covered by the current retirement plan arrangements.</li> <li>• Takaful retirement products are largely non-existent.</li> </ul>	<ul style="list-style-type: none"> <li>• Expatriates are currently diverting a significantly saving a far lower proportion of income than advised by retirement-planning experts.</li> <li>• Expatriates require products that are portable and easy to transfer from one country to another country.</li> <li>• Decumulation products (i.e., annuity or other income drawdown) options are limited. These may be attractive among those who will remain in the country after retirement.</li> </ul>

## APPENDIX C - 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 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 D - 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)

## APPENDIX E - EXCHANGE RATES

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 DOLLARS				
		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	1.2840	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	0.0110	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	0.0110	0.0098
KUWAIT	1	3.5926	3.5542	3.5426	3.4147	3.2944
MALAYSIA	1	0.3156	0.3270	0.3050	0.2858	0.2323
OMAN	1	2.5974	2.5977	2.5977	2.5974	2.5971
PAKISTAN	100	1.1117	1.0280	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	26.6430	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	0.6080	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

Source: [www.xe.com](http://www.xe.com)

## APPENDIX F - MILLIMAN SOLUTIONS & CONTACT DETAILS

### TAKAFUL EXPERTISE IN MILLIMAN

Milliman has acquired significant experience and expertise in Takaful and Retakaful from working on a number of assignments.

- Assisted several regulators worldwide in developing Takaful regulations
- Providing assistance in developing and reviewing the actuarial pricing basis for family Takaful products
- Appointed Actuary roles for several Takaful operators
- Assisting new start-up Takaful and Retakaful operators in developing a sound business plan
- Providing expertise in product design and development, including Retakaful solutions

### 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.
MODELLING	Build tools for sound surplus distribution and allocation of wakalah fees. 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.
REGULATORY & COMPLIANCE	Create and advise on funds (subject to authorisation restrictions), pool and underwriting procedures to meet Shariah requirements. 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.

## GLOSSARY / LIST OF ABBREVIATIONS

**AAOIFI:** Accounting and Auditing Organisation for Islamic Financial Institutions

**ACE:** Annual Contribution Equivalent

**APE:** Annual Premium Equivalent

**BNM:** Bank Negara Malaysia

**CAGR:** Compound Annual Growth Rate

**CBB:** Central Bank of Bahrain

**EPF:** Employees' Provident Fund

**EOSB:** End-of-service benefits

**GCC:** Gulf Corporation Council markets

**GDP:** Gross Domestic Product

**GWC:** Gross Written Contributions

**GWP:** Gross Written Premiums

**IA:** Insurance Authority

**LIFE:** Life Insurance and Family Takaful Framework in Malaysia

**OJK:** Otoritas Jasa Keuangan or Financial Services Authority in Indonesia

**PRS:** Private Retirement Scheme

**RM:** Ringgit Malaysia

**ROE:** Return on Equity

**Rp:** Indonesian Rupiah

**USD:** US Dollars

**SAMA:** Saudi Arabian Monetary Authority

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