Institute and Faculty of Actuaries

Takaful – Evolution of Unconventional Insurance

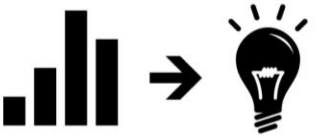
Takaful Life Working Party

Presenter:
Aiza Yasmin Benyamin
Farzana Ismail

4 March 2016

Introduction

- Subject material inherently very large
- Research remit is in respect of family takaful business only
- Our objective is to provide new insights, building on the core work done by the Takaful Life working party completed in 2014



Agenda

- Unconventional insurance
- Key findings from the Takaful Working Group
- Case studies
- Conclusion

Institute and Faculty of Actuaries

Unconventional Insurance

Overview of various other emerging unconventional insurance in operation

Discretionary mutuals

THE MILITARY MUTUAL

- **UK mutual** established in 2010 with no shareholders. Surpluses are used to support military community and causes. The directors, who are members of the mutual, can agree claims that are not covered if they decide that the circumstances are justified.

- **In Malaysia, Angkasa** was recently reported to have launched takaful operations through a Labuan Protective Captive Cell in 2015.
  - Angkasa self-insures its members' risks. The risks are self-insured on a takaful basis through a Protective Cell Captive (PCC) in Labuan. The company that runs the PCC in Labuan takes on the role of the administrative manager for the takaful arrangement. To protect the Cell, retakaful coverage on the cell can be obtained in Labuan.

Source: http://www.themilitarymutual.com/
finance.bernama.com/news.php?id=1170002

Ethical-based insurance

ChristianInsurance SWITCH FOR GOOD

- **'Insurance with social responsibility'** Established in 2013 in Australia, a portion of the premiums goes to charities

- *"By taking out a Christian Travel Insurance policy, your premium can contribute to **sponsoring a child's school education in Cambodia**. With a Christian Life Insurance policy you will help towards **building a clean drinking water projects in Brazil.** A Christian Income Protection policy, over your lifetime you can **assist medical support services in Papua New Guinea.** Imagine travelling overseas knowing your protected by your Christian Travel Insurance, but you are also **sponsoring a school education projects in Africa."***

ChristianSuper adding values to money

- **Ethical-based organisation in Australia.** Investments in accordance to biblical principles.

Different Life

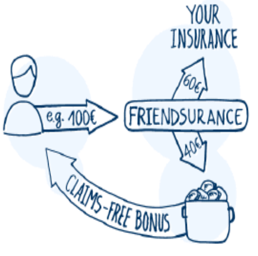
- **Established in South Africa in 2015.** One monthly premium yearly donated to a cause that is selected by a policyholder on different.org (an online crowd-funding philanthropy platform).

Source: http://christianinsurance.com.au/, http://www.christiansuper.com.au/, https://differentlife.co.za/

What are other alternatives?

- **Outsurance in South Africa** since 1998 (http://www.outsurance.co.za/)
  - First reward system to return cash for those claimless
  - Passionate about service
  - Ethos of contribution to the society
  - Expanded to Namibia (2007), Youi in Australia (2008)
- **Instantlife in South Africa** (https://www.instantlife.co.za/)
  - Returns 20% of all payments made every 10 years.
  - 30% lower monthly premiums (direct sell)

What are other alternatives?



- **Social insurance e.g. peer-to-peer insurance program**
  - Online crowd insurance program first introduced in Germany in 2010 (Friendsurance).
  - Peer-to-peer approach aims to strengthen the sense of responsibility towards the group while minimizing the number of fraudulent cases -> lower premiums
  - Cash-back bonus / surplus sharing for those claimless

- **How it works?**
  - Small claims settled from money in the pool
  - For bigger claims, excess is covered by standard insurance company
  - If funds insufficient in the pool, stop-loss insurance covers the rest.

Source: http://www.friendsurance.com/

What are other alternatives?

- Popularity of peer-to-peer insurance increasing globally
  - Hey Guevara in the UK in 2014
  - PeerCover in New Zealand
  - insPeer in France
  - Peers Mutual Protection in China in 2015
  - Lemonade in New York)

GUEVARA insPeer PEERCOVER Lemonade™

9

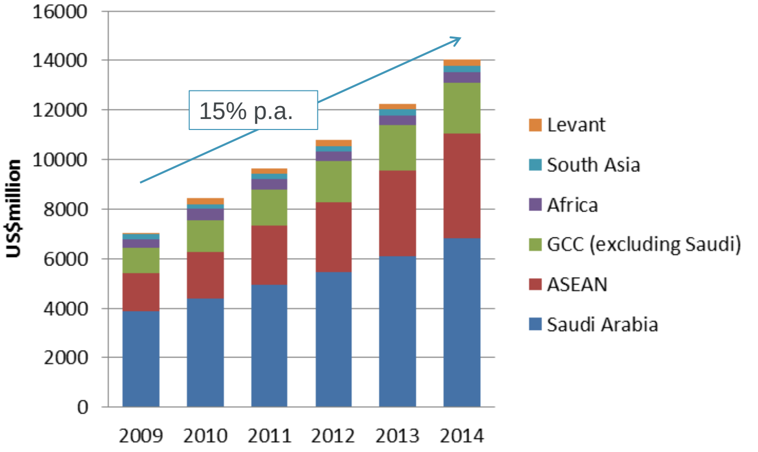
Institute and Faculty of Actuaries

Overview of the takaful market

Introduction to the Takaful Working Group

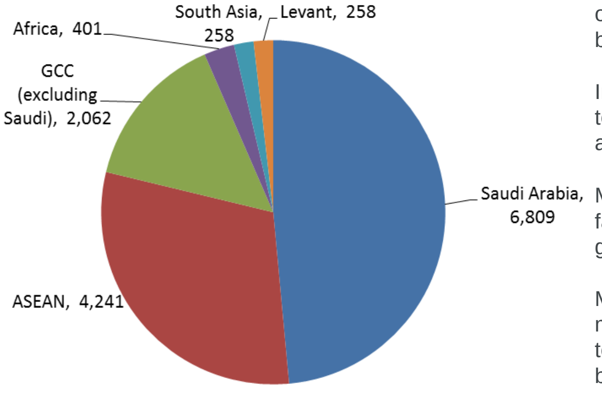
ertise nsorship Thought leadership Progress Community Sessional Meetings Education Working parties Volunteering Research Shaping the future Networking Professional support Enterprise and risk Learned society Opportunity International profile Journals Suppor

Growth in the global takaful market



Note: Saudi Arabia has a cooperative market.
Source: Estimated in Global Takaful Insights 2014 by Ernst & Young

Global Takaful Market estimated at US$14bil in 2014



In the GCC, Saudi accounts for nearly 80% of the market, followed by the UAE at 15%.

In ASEAN, over 70% of total gross contributions are from Malaysia.

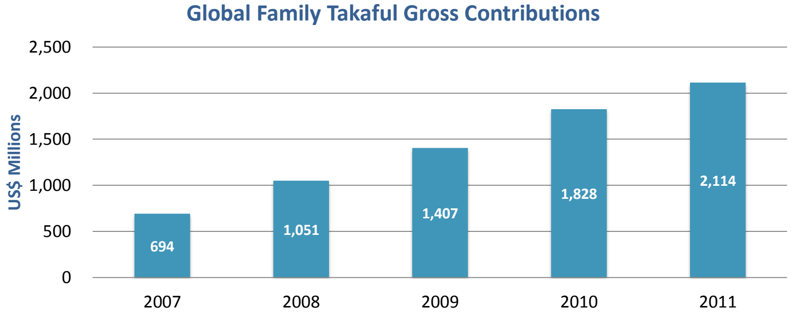
Malaysia has the largest family takaful market globally.

Most of the other markets are focused towards general takaful business.

Source: Estimated in Global Takaful Insights 2014 by Ernst & Young

Overview of global family takaful market

- Global Family Takaful market small at US$2,114m in 2011. Malaysia is the largest, representing over 50% of all contributions.
- Malaysia has some of the most robust takaful regulations including a risk-based capital framework
- Highest growth is expected from the Indonesian market.



Source: Milliman Global Family Takaful Report 2013

The state of the global industry

1. Where there are regulations specific to takaful in place, we see that takaful can flourish
2. Failures often stem from operators going after business (top line approach) chasing fees and exacerbated when there is no specific regulations in place to ensure solvency and safeguard policyholders interest

Research mandate

TWG Research covers three main areas

1. Understanding and exploring the main proposition of takaful; in particular, surplus distribution
2. Assessing the capital requirements of takaful business, comparing and contrasting to insurance business as well as its implications
3. How can actuarial science contribute to the better financial management of takaful business and what areas of the science would need enhancement to meet the specific nature of takaful business?

Key findings from research

- Takaful value proposition is distinct from insurance and still evolving. Surplus sharing feature and practice is not robust or consistent across the globe.
- Takaful may offer less capital intensive solutions but this critically depends on treatment of Qard under Solvency II
- Many areas for actuaries to enhance approach and quality

Institute and Faculty of Actuaries

Research Topic 1

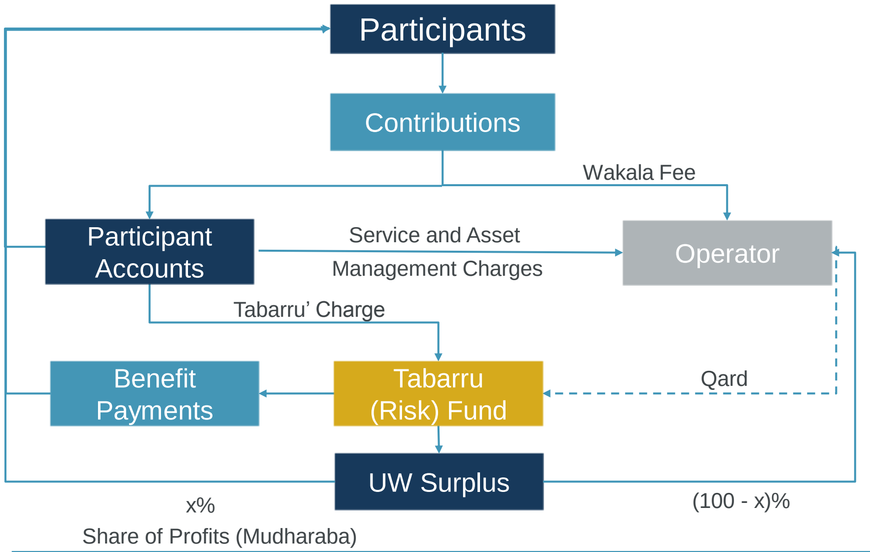
Understanding and exploring the main proposition of takaful; in particular, surplus distribution

Comparison of takaful with insurance

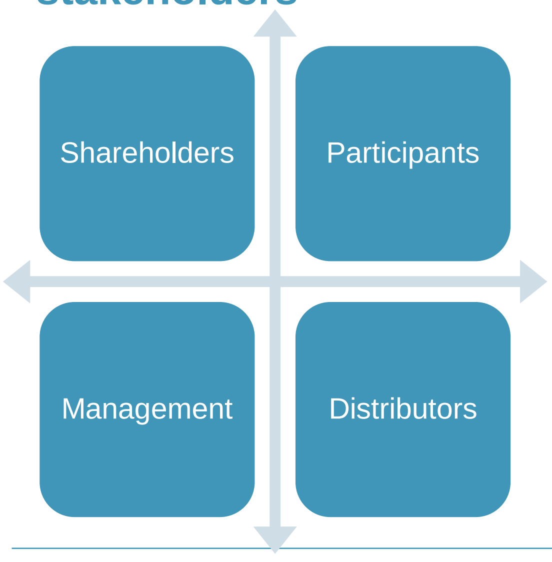
	Conventional Insurance	Takaful
Risk Transfer	Risks transferred from policyholder to insurer in exchange for a premium	Risks shared by the pool's members (participants) with the operator managing the pool
Uncertainty	Contract terms are unclear as to when losses occur and how much is compensated	Contributions into risk pool are donations to mitigate losses affecting the participants
Gambling	The insurer compensates the insured for a loss even if it far exceeds the premium	Participants pay contributions in the spirit of brotherhood to cover mutual losses
Interest	Funds are invested in interest bearing instruments and so contain Riba	Funds are only invested in non-interest bearing instruments
Surplus	Surplus belongs to shareholders and with-profit policyholders whilst in-force	Surplus ownership unclear but most common view is that it belongs to participants

Example of a typical takaful model in Malaysia

Wakala With Mudharaba



The competing interests of key stakeholders



- Due to the competing interests of management, shareholders, agency force and participants, the resulting product offering may not be in the best interest of the participant.
- The participant's interest in terms of the security of the fund is largely protected by the regulatory requirements (e.g. RBC framework, etc).

Value proposition of Takaful

In line with Islamic teachings

Surplus sharing

Ethical investments and transparency

Distinguishing features

Sense of belonging

Specific to the Muslim market (e.g. Hajj savings)

Unique value proposition by country

- Each country 'reacts' to takaful in its own way

Malaysia	• Muslims value product that is Shariah compliant • Product that caters to customers' needs • Surplus sharing mechanism • Product that contributes to the greater good (takaful company pays 'zakat' /charitable act / donation to the poor)
Indonesia	• Large Muslim population which is inclined to purchase Shariah compliant products • Some evidence Shariah compliant products are popular with non-Muslims

Unique value proposition by country (2)

Pakistan	• Companies tend to compete on price rather than religious grounds. • Charging structure is more competitive • Greater transparency (no hidden charges) • The benefit of surplus from the risk fund is an attractive feature • Investment options and returns deemed to be better under Takaful
UAE	• Companies typically do not use Shariah aspect of the plans to sell their products • Better charging structure • Surplus sharing / distribution • Greater transparency, i.e. no hidden charges
Nigeria/Kenya	• Higher take up rates by non-Muslims instead of Muslims • The cooperative / mutual structure of helping each other was the main appeal (given the lack of trust in agents in that market).

Value proposition of Takaful

No common value proposition across markets

- Conformity with Islam appears to be main appeal at a basic level
- Surplus sharing could be a genuine advantage
  - Variety of approaches for distribution
  - PRE underdeveloped from both a consumer and actuarial perspective

Institute and Faculty of Actuaries

Research Topic 2

Assessing the capital requirements of takaful business, comparing and contrasting to insurance business as well as its implications

ertise nsorship Thought leadership Progress Community Sessional Meetings Education Working parties Volunteering Research Shaping the future Networking Professional support Enterprise and risk Learned society Opportunity International profile Journals Suppo

Hypothesis

The principle of risk pooling under takaful business, as opposed to risk transfer, results in less strenuous capital requirements compared to an equivalent UK insurance product

Qard

What is it?

- Loan by SHs to risk fund when in deficit, repayable from future surplus
- Deficits can occur due to volatility in experience (real) or in meeting solvency requirements (temporary strain)
- May suggest that a deficit will be "covered" from regulatory point of view

Is this better than With Profits plans?

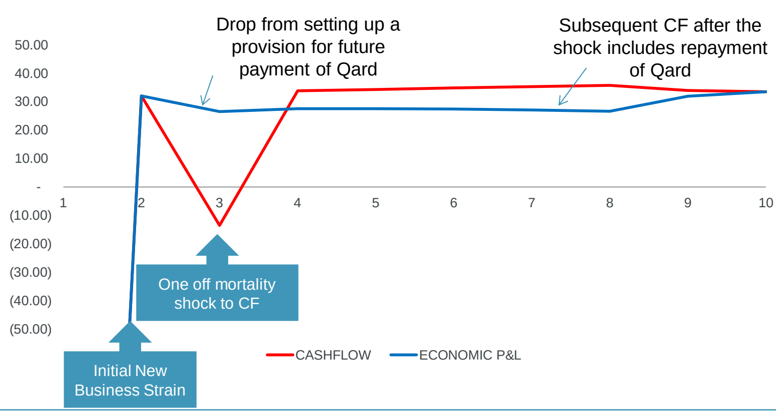
- For WP SHs must make good any deficit with potential loss of value
- SHs fund deficit due to short term volatility without permanent injection
- Not to be confused with "burn through" cost

How Does Qard work under Solvency II?

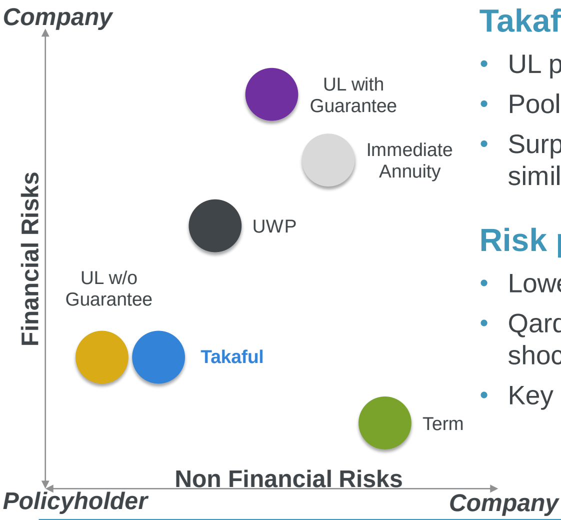
- Key question is recoverability
- Either as asset in balance sheet or negative reserve. We assume former

How does Qard work under Solvency II?

- Chart illustrates a mortality shock to the risk fund in year 3
- Pure cashflow immediately reflects this shock but Qard facility from the operator smoothens the economic P&L



Risk Profile of takaful products



Takaful is a hybrid product

- UL product chassis
- Pooling of risk benefits
- Surplus sharing brings similarities with UWP

Risk profile is thus hybrid

- Lower investment guarantees
- Qard protects against mortality shocks, smoothing results
- Key risk left is expense risk

Hypothesis proved?

Takaful is less capital intensive than similar insurance products

- Takaful, due to the underlying principle of risk pooling, instead of transfer, can be less strenuous in terms of capital requirements
  - The Qard facility allows transparent smoothing of risk experience
  - Liability and capital for takaful are likely lower, if not the same
  - Qard is unlikely to offer protection against a permanent worsening of experience. Offers no protection against expense risk
- At the same time, this results in poorer returns to shareholders as profit is deferred until Qard is repaid
- The treatment of Qard under Solvency II, especially its impact on SCR, requires further research

Risk and Capital Requirements

What is Capital "required" for?

Risk	Takaful Risk Fund(s)	Shareholder's Fund
Asset (credit & market)	Charges on assets related to each takaful risk (sub)fund	Charges on Shareholder's assets
Takaful Liabilities	Charges on liabilities related to each takaful fund. *Implies charges to be met by the respective Takaful Fund (to avoid cross subsidies)*	n/a
Expense Liabilities	n/a	Implies charges to be met by Shareholders Fund
Operational	n/a	Implies charges to be met by Shareholders Fund. However, charges to reflect assets of both shareholder's <u>and all takaful funds.</u>

In takaful, liabilities for providing takaful and expense are treated separately

4th March 2016 31

Institute and Faculty of Actuaries

Research Topic 3

How can actuarial science contribute to the better financial management of takaful business and what areas of the science would need enhancement to meet the specific nature of takaful business?

Thought leadership Progress Community Sessional Meetings Education Working parties Volunteering Research Shaping the future Networking Professional support Enterprise and risk Learned society Opportunity International profile Journals

Key research areas

We identified 5 broad areas to concentrate our research

- Product design and pricing
- Surplus distribution
- Performance measurement
- Role of the profession
- Investment and ALM

Findings and how the profession can help the industry

Three headlines

- Development of differentiated value proposition and role of the regulations

- Type and quality of interaction with Sharia community
- Qualify and quantify takaful specific risks.

Findings and how the profession can help the industry

Other interesting takeaways

- Further research into Sharia finance by actuarial community

- More education of the public
- Broaden our involvement in the takaful industry.

Institute and Faculty of Actuaries

Case Studies

Key Success and Failure Stories of Takaful Globally

ertise nsorship Thought leadership Progress Community Sessional Meetings Education Working parties Volunteering Research Shaping the future Networking Professional support Enterprise and risk Learned society Opportunity International profile Journals Suppor

Case Study 1: Takaful is not solely for Muslims

- In Nigeria, Christians have the highest subscribers' rate to takaful products.

- Surplus sharing mechanism is an attractive feature (e.g. vs crop insurance with no surplus sharing).

Source: http://www.takaful.coop/index.php?option=com_content&view=article&id=706%3Anigeria-embraces-takaful-insurance&catid=23&Itemid=168

Case Study 2: Managing Expectations

Conflicting interests among shareholders, management and Takaful participants

- Shareholders want high level of profits, as soon as possible
- Management typically targets premium volume (top line growth)
- Takaful participants want security, low premiums, share in surplus
- Misalignment in interests results in poor value products for customers

Lack of understanding of Takaful has left some investors to be disillusioned

- Slower profit emergence compared to conventional, slower growth than expected, resulting in some foreign players to exit the market

Participants expect Takaful to be cheaper than conventional

- Surplus sharing in Takaful usually means Takaful should be more expensive

Case Study 3: Holistic Government Support

- **Support from the government to grow Islamic finance**
- **Availability of suitable assets (e.g. sukuk)**
- **Robust regulations and corporate governance, with strong regulators** (including **National Sharia Council).**
- **Increasing public awareness**
- **Developing human talents in Islamic finance**
- **Selective and gradual process in issuing Takaful license**

Case Study 4: Products

- **Takaful and conventional products 'look' the same during the sales process.**
- **Cannibalisation of conventional products to Takaful**
- **Focused on the 'low hanging fruits' e.g. single premium and credit-related businesses**
- **Mainly investment-linked products**. **Pure protection products offering is limited** (except medical, credit-related, group term). **Lack of micro-takaful.**
- **Embedded products to increase penetration**
- **Inappropriate and insufficient pricing (rates undercutting / high wakalah fee results in deficits in risk fund).**
- **In a tariff market, if product is profitable, takaful would be attractive given surplus sharing nature.**
- **Personal lines business more suitable for takaful than commercial business given risk pooling nature**

Case Study 5: Distribution

Agency is often the most effective way given importance of face-to-face sales but difficult to grow beyond urban areas.	Bancatakaful is popular to ride on existing network. Usually limited to credit-related, fire, PA products. Sometimes parked with wealth management but conflicting competition
Mobile insurance (e.g. Pakistan)	Distribution through mosques to their congregation.

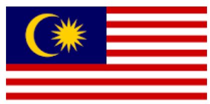
Case Study 6: Operational Challenges

- **Shortage in Takaful talent (worldwide)**.
- **High capital requirements and adopting strategy to compete on price can be harmful for young companies**
- **Stagnation of market growth.**
- **Lack of robust processes** resulting in poor corporate governance
- Lack of understanding results in **poor persistency**
- **Surplus distribution policy – importance of actuary sign-off**

Case Study 7: Is Takaful a product or a separate system?


- Takaful operating under a pure conventional insurance act (square peg in round holes!)

- Takaful within the conventional insurance act but with separate regulations



- Separate Act and Regulations for takaful and conventional insurance

Case Study 8: Understanding your market/consumers

- In a predominantly Muslim country, it may be important to highlight the Islamic aspect of takaful.

- However in a secular-based country or multi-faith country, it is important to consider the need to minimise the use of Islamic/Arabic words.

Conclusion: How can Actuaries help?

- Develop surplus distribution methodology that is fair and equitable e.g. asset shares
- Identify and identify potential inherited estates
- Develop surplus distribution principles (e.g. smoothing, cross subsidies)
- Actuarial input on the impairment of qard
- Actuarial input during takaful fund mergers in view of TCF (similar to Independent Experts in Part VII transfers in the UK)
- Development of better corporate governance, such as developing a disclosure material similar to the PPFM in the UK to develop further transparency
- Using asset-liability management (ALM) models to manage the takaful business and improve returns

Questions Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenters who can be reached at the following email addresses

Aiza.Benyamin@actuarialpartners.com

Farzana.Ismail@milliman.com


Institute
and Faculty
of Actuaries
Thank You
22 February 2016