PENSION TAKAFUL
REPORT

Exploring pension Takaful proposition

WIC ALS 2013

Milliman

Pension Takaful Report

Message from the WTC ALS Convener

Dear insurance industry leader,

It is with great pleasure that we announce the exclusive onsite launch of the Milliman Pension Takaful Report here at the second annual World Takaful Conference: Asia Leaders Summit (WTC ALS 2013) in Kuala Lumpur, Malaysia.

With increasing access to a better quality of life, advancements in medical and healthcare facilities together with greater awareness of health-related issues, most countries globally and within the Muslim world are witnessing increasing life expectancies amongst their populations. One of the long-term impacts of greater life expectancies is the need for retirement products. With Muslim consumers in the key markets of the GCC, South East Asia and beyond becoming more financially savvy and with heightened awareness of the need for financial security upon retirement, there is a huge potential market for pension plans that are Sharia-compliant. However, Takaful products focusing on retirement and pensions are still largely non-existent.

We are delighted that Milliman is launching the first Pension Takaful Report to examine the key industry trends, analyse the future projections and explore the significant growth opportunities in the pension Takaful industry.

The World Takaful Conference: Global Summit in Dubai and its sister conference, the World Takaful Conference: Asia Leaders Summit in Malaysia, both play a key role in supporting growth, excellence and innovation in the global Sharia-compliant insurance industry. We would like to express our sincere gratitude to Milliman for its initiatives such as the Global Family Takaful Report and the Pension Takaful Report, which provide research insights into strategic issues in the global Takaful industry, and for launching these original research reports at our leading industry gatherings.

We hope that the analysis in this report along with the debates and discussions at WTC ALS 2013 will provide practical, constructive and valuable insights which will be useful in your own strategic planning activities.

Yours sincerely,

David McLean
Chief Executive
The World Takaful Conference: Asia Leaders Summit (WTC ALS)

Introductory Message

Dear Takaful practitioner,

Milliman is pleased to present its first Pension Takaful Report.

The Muslim population currently constitutes almost 24% of the world's population. Many of the Muslim majority countries are emerging markets with a young and affluent population. This has resulted in higher disposable income and demand for more Sharia/Syariah (referred to as Sharia in this report) -compliant financial products.

As the population demographics mature, the issue of longevity will start to impact the Muslim world. By 2030 many Muslim countries will see a drop in the old age support ratio (number of persons age 15 to 64 per person age 65 or over). If not well planned, this will create financial and social problems similar to what we are witnessing in countries like Italy and Japan.

This precarious situation demands that Muslims should consider carefully how they will finance themselves after their retirement. Hence, Milliman identified a need to focus exclusively on a pension Takaful report. This report explores the issues around longevity risk and other delicate financial concepts and how the Takaful industry can play its role in introducing Sharia-compliant pension products.

Milliman now has a dedicated Takaful and EB practice in Dubai as well as experienced EB consultants in both our India and Singapore 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 pension Takaful.

We hope that this report will allow market participants to understand better the pension Takaful opportunities, and at the same time provide Takaful practitioners with food for thought on some of the underlying issues and challenges facing the industry.

We would like to acknowledge the contribution of Sheikh Faizal Ahmad Manjoo, CEO, Minarah MultiConsulting Ltd, who worked closely with Milliman consultants in developing this report.

Lance Burma
Employee Benefits Practice Director
Milliman

Message from Minarah MultiConsulting Ltd

Ageing is a natural phenomenon. However, **successful ageing** is what mankind should aspire towards. Unfortunately, as a general rule, it is only when we reach a certain age that we realise we have become the prey of many old-age-related problems, which are often financially driven. The famous prophetic saying "tie your camel and then put your trust in Allah" is enough food for thought for encouraging Takaful companies to look into the pension industry. This will enhance their contribution in promoting Islamic finance. Such development will help the ummah to mitigate the longevity risk and also to implement the maqāsid of Sharia (the higher objectives of Sharia).

The projection for an ageing population in the Muslim world is alarming. Its tsunami effect will be catastrophic because family or tribal support is disappearing. We are also moving towards a financial economy rather than a real economy, which means we are becoming more dependent on financial instruments for our survival. According to the UN's recommendation, funded pension plans can be a panacea for this problem. This report is an attempt to create an awareness of the longevity risk issues and also to propose some solutions to the problem of pension and longevity risk.

My thought regarding pension provision is that it should not only be a commercial endeavour, but also a collective endeavour to support those who cannot afford it. This is because Islamic economics has a well-established philanthropic sector (**infāq sector**) which needs to be reactivated. Takaful companies have the right philosophy for it, which needs to be harnessed. Islam demands that Muslims should care for old people, including non-Muslims. So, Islamic pension provision should be underpinned by both a commercial as well as a philanthropic ethos.

Sheikh Faizal Ahmad Manjoo (LLB, MA)
Chief Executive Officer
Minarah MultiConsulting Ltd (UK)

Glossary of Arabic Terms

***'Aqd al-Mu'awadhah* –** A bilateral contract whereby parties exchange counter values.

Bait al-Māl – Similar to a government treasury. It is a source of income for the state to run it.

Fiqh – Often referred to as the Islamic law, but it encompasses a wider spectrum of secular law such as it includes religious rites.

Ghaban – Exploitation of a client based on his ignorance of what is prevailing in the market.

***Ghara*r** – A high level of uncertainty in a transaction.

Haram – Forbidden by Islamic Law.

Ijarah – Lease contract.

Infāq Sector – This is the voluntary or philanthropic sector in Islamic economics. It entails the voluntary contribution by Muslim citizens to help underprivileged people or for some other charitable/philanthropic projects.

Istithna' – Manufacturing contract.

Maqāsid al-Sharia – The higher objectives of Sharia, which are the protection of religion, life, family, intellect and wealth.

Maysir – Usually translated as a game of chance whereby two parties bet; one party will win and the other will lose.

Mudharabah – A type of partnership whereby one party contributes capital and the other contributes his skills and effort. They pre-agree on the sharing of profit ratios.

Glossary of Arabic Terms

Mudharib – It is the partner in a mudharabah who invests his skill and effort in the partnership endeavour.

Riba – Interest, or any excess amount charged on the original capital borrowed which has been contractually agreed upon.

Sukuk – A financial instrument similar to a conventional bond but which is usually asset-backed.

Tabarru' – This is a donation, which is usually a unilateral contract, i.e., one party performs.

Ummah – The entire world Muslim community.

'Uqūd al-Tabarru'āt – Contracts of donations that are usually unilateral, such as giving a gift or making a bequest.

Wa'ad iltizāmi – This is a self-imposed promise, which becomes binding in Sharia.

Wakalah Fee – An agency fee.

Wakeel – Agent.

Waqf (pl. Awqāf) – An Islamic endowment. It is analogical to a trust, though there are some differences.

Zakah – This is a sort of levy imposed on Muslims who own certain types of assets whose amounts top a minimum threshold after deducting all their liabilities and after they possess it for one lunar year. Usually it is at a rate of 2.5% per annum.

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Introduction

Historically, Muslims could rely on a variety of financial institutions and social arrangements to support them during their old age:

- A large family; whereby children were considered as an investment for old age.
- An extended family or tribal affiliation; whereby members would look after their elderly people.
- The bait al-māl system (Islamic treasury); that would provide welfare support for the poor and elderly.
- Awqāf (endowments); a powerful financial institution stimulated and supported via philanthropy.

Unfortunately these arrangements are at odds with the higher objectives of Sharia (maqāsid al-Sharia) to protect religion, life, family, intellect and wealth; in particular, when someone is ageing and decides to retire, he/she should avoid becoming a burden on society.

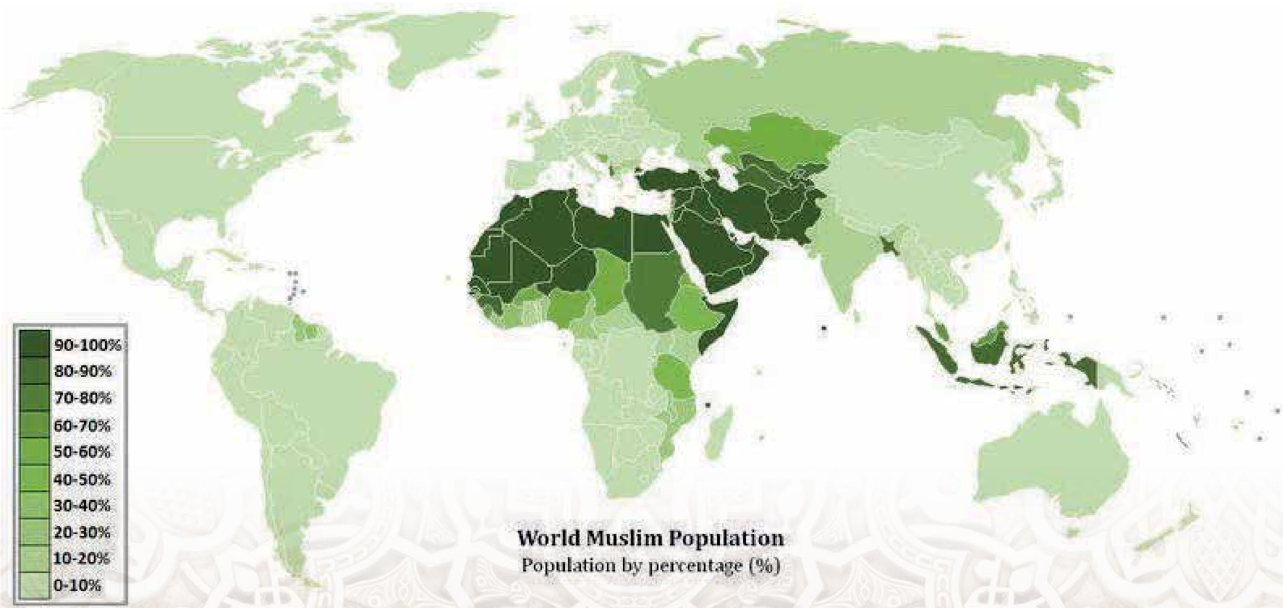
Due to increases in life expectancy and corresponding decreases in fertility rates by 2030, the Muslim World will see similar longevity risks that some developed countries are already facing. Many governments will not be able to shoulder the financial burden. The responsibility of the longevity risk will transfer to the private sector, which, in turn, will attempt to transfer the risk to the pensioner.

Milliman wants to draw the attention of Governments, Takaful operators and other stakeholders towards this impending longevity risk. This report will cover most dimensions of pension Takaful including the need to cater for old age, the pension market and demographics in selected Muslim majority countries, the need for an Islamic pension plan, longevity risk in the Muslim world and suggested models for an Islamic pension fund.

Global Muslim population

"Muslims will make up 26.4% of the world's total projected population of 8.3 billion in 2030, up from 23.4% of the estimated 2010 world population of 6.9 billion."

- Pew Research Center's Forum on Religion and Public Life



Source : Wikipedia

Need to cater for the old age

Pension concept in Islam

There is no specific prescription in Islam regarding retirement age, and this is a modern concept that Muslims live with. From the higher objectives of Sharia, perspective protecting one's life, family and wealth is a guiding principle, and therefore one should save for old age. Some Muslim scholars are of the view that protecting human dignity is also one of the higher objectives of Sharia, as old age affects a person's productivity. The Quran recognises old age (Quran, 36:68) and Muslims should mitigate the risks associated with ageing.

A pension insulates one at least to some extent against the financial risks of an uncertain life expectancy. Accordingly, pensions (or annuities) provide periodic payments to a person who retires upon reaching a certain age, becomes disabled, or completes an agreed span of service.

Whilst the concept of a funded pension is new to the Islamic finance industry, the model of a state funded pension can be traced to the time of the second Caliph Omar (according to the historian Baladhuri) when the state treasury stipulated a stipend for certain groups of people. (Zaman H. [1991], Economic Functions of an Islamic State [The Early Experience], Leicester: Islamic Foundation).

Because there is no example or model of an occupational pension in Islamic history, one needs to be developed so that Muslims can have a source of income during their old age. In Islam, there is a juristic principle which states that everything is allowed as long as there is no proof that prohibits it. Hence, pension in itself is a welcome idea as it will help people and the state in attending to the financial burden of the elderly. However, an Islamic version must be developed because the conventional pension has some prohibitive elements with respect to its investment policy and annuity principle.

International trends in pensions

State pensions are being cut back in response to ageing populations. Many factors have contributed to states taking this action. For one, life expectancy was exceeding the duration assumed when state pensions were originally developed. Another factor was the issue of affordability to contribute to a pension fund. These circumstances have been further undermined in the wake of the financial crisis. This explains the recent pension cutbacks in many European countries and the United States.

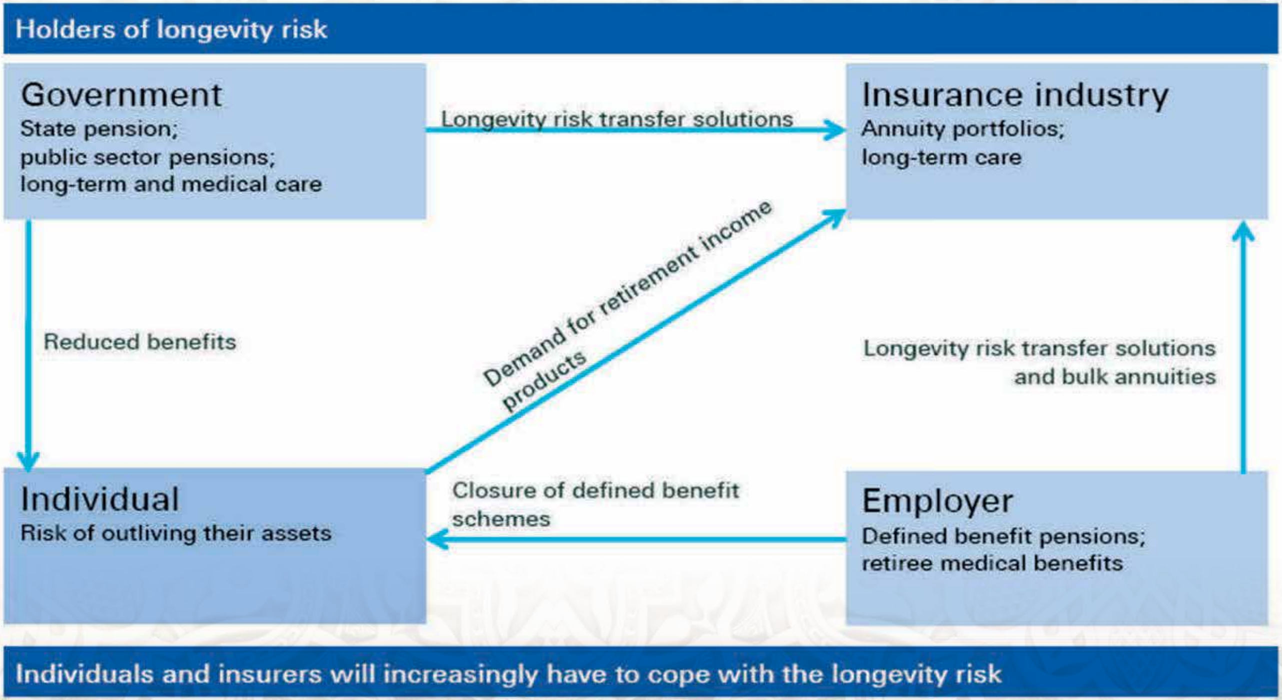
Globally, there has been a shift towards risk-sharing in both state and occupational pensions. We see defined benefit (“DB”) pension schemes are being frozen or converted into defined contribution (“DC”) and hybrid plans in many countries. In many South East Asian countries, social security schemes are DC as well.

In the Netherlands and the UK, the governments are trying to strike a balance regarding the risk carrier for a given occupational pension fund. The idea of an employer continuing to bear some of the risk on behalf of its employees is being considered. This concept is known as a defined ambition (“DA”) plan. However, there are presently a number of DA structures. Often a DA can be a hybrid version of other types of pension schemes.

For example, a DA can be a modification of the DB pension system whereby a pension fund continues to operate as before. However, instead of making a promise to provide a pension based on average career salary, the employer makes a promise to target a specific pension amount on the condition that employer contributions will not have to be raised in order to achieve the target pension.

Structural impact of recent trends in pensions

Shifting balance in meeting costs of retirement



Source: Alison Martin (2011), *Meeting the Challenge of Longer Lives*, Presentation delivered at the Conference on *The Future of Human Longevity:Breaking the Code*, organised by Swiss-Re on 7 November, 2011, in Zurich.

Pillars of retirement funding

The Pillars of Retirement Funding

Pillar1: Mandatory, state-run system, (usually pay-as-you-go and financed through a payroll tax); Typically designed to reduce poverty among the elderly.

Pillar 2: Occupational pension plans funded by employers or co-workers. These plans are either defined benefit or defined contribution.

Pillar 3: Voluntary personal savings through retirement accounts, annuities and insurance.

Source: Manjoo, (2012), An Appraisal of Longevity Risk: Conventional and Islamic Perspectives., Kuala Lumpur: ISRA

Three-Pillar System

Pillar 1	Pillar 2	Pillar 3
State Pension	Occupational Pension	Private Pension
Secures a minimum standard of living	Maintains employee's current standard of living	Covers additional needs
Financed with (payroll) tax	Financed with employee and company contributions	Financed with personal savings, privately managed
Publicly managed	Privately managed	Privately managed

Pension market and demographics in selected Muslim majority countries

Milliman

Key data on selected Muslim majority countries

Selected Muslim majority countries	2012 per capita income (USD)	Savings rate as % of GDP	Mid-2012 population (millions)	Population growth rate	Median age of population (years)	Old age support ratio - 2012	Old age support ratio - 2050	Labour force participation rate	65+ population (millions)	Life expectancy males	Life expectancy females	Retirement age
Malaysia	10,000	35%	29	1.60%	27.1	13	4	65%	1.5	72.0	77.0	60
Indonesia	3,200	32%	248	1.04%	28.5	12	3	68%	15.1	70.0	74.0	55
Pakistan	1,155	20%	179	2.10%	21.9	14	7	54%	7.2	64.5	68.3	60
Bangladesh	838	26%	153	1.37%	23.6	14	4	71%	8.0	68.2	72.0	59
Turkey	10,500	13%	76	1.20%	30.1	11	3	51%	5.3	72.0	77.2	60
Saudi Arabia	24,911	47%	29	2.90%	25.7	22	5	50%	0.9	72.4	76.4	60

- At present, the population demographics in the Muslim World are young with a median age in the twenties.
- The old age support ratio (the number of people between ages 15 to 64 to those older than 64) is expected to drop sharply from 11 or higher in 2012 to around 5 in 2050.

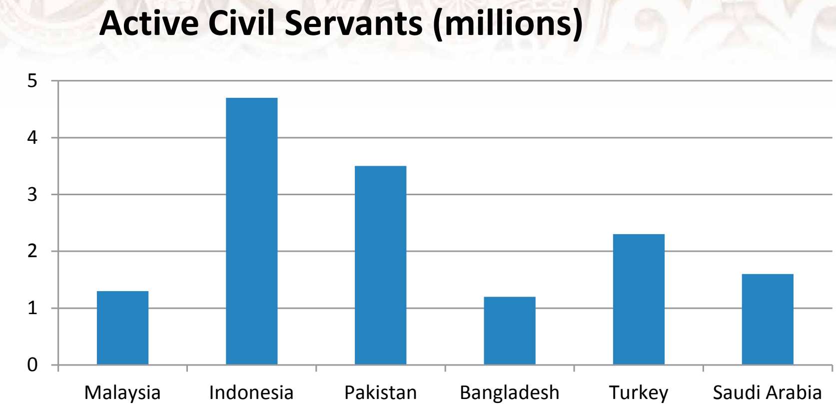
Source : Government Department of Statistics, World Bank, CIA World Fact Book and Indexmundi websites

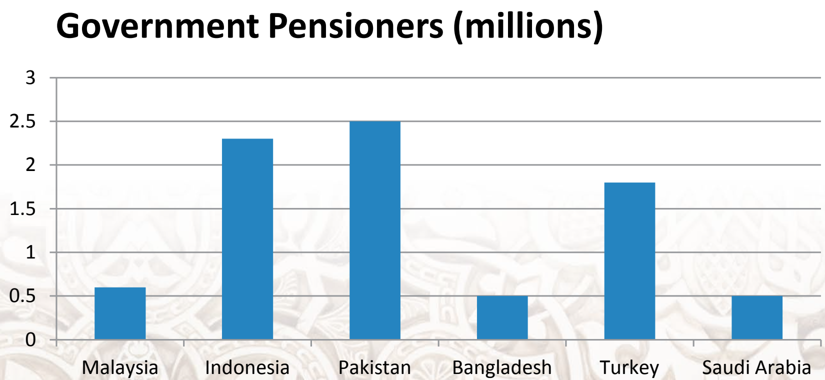
Active civil servants and government pensioners in selected Muslim majority countries

Country	Active Civil Servants (millions)	Government Pensioners (millions)
Malaysia	1.3	0.6
Indonesia	4.7	2.3
Pakistan	3.5	2.5
Bangladesh	1.2	0.5
Turkey	2.3	1.8
Saudi Arabia	1.6	0.5

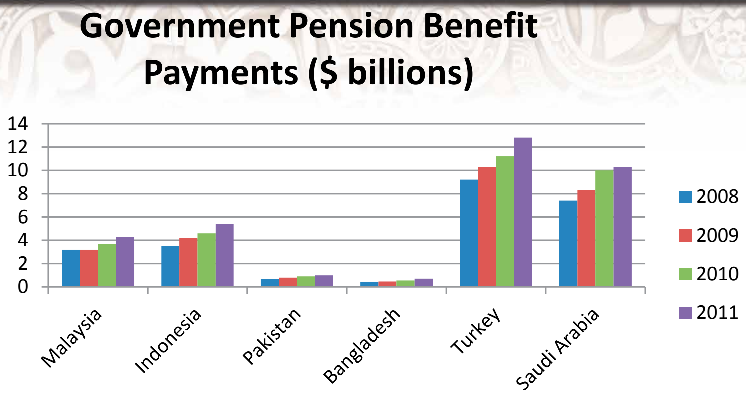
- The number of active civil servants and government pensioners is high in countries like Indonesia and Pakistan which have high Muslim populations.
- The number of government pensioners is also relatively high in Turkey and Saudi Arabia because of generous pension provisions.

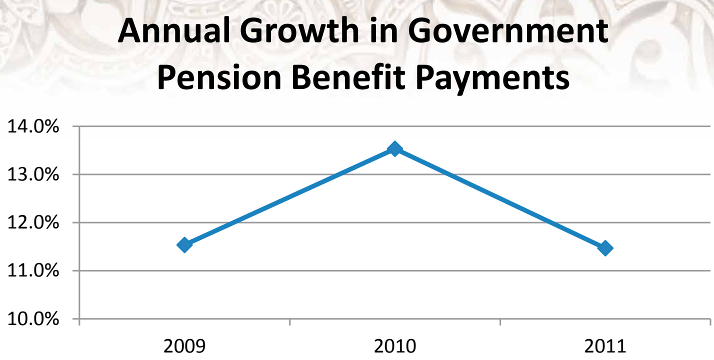
Source : Government Social Security Institutions' websites





Government pension benefit payments in selected Muslim majority countries





Country	2008	2009	2010	2011
Malaysia	3.2	3.2	3.7	4.3
Indonesia	3.5	4.2	4.6	5.4
Pakistan	0.7	0.8	0.9	1
Bangladesh	0.5	0.5	0.6	0.7
Turkey	9.2	10.3	11.2	12.8
Saudi Arabia	7.4	8.3	10	10.3

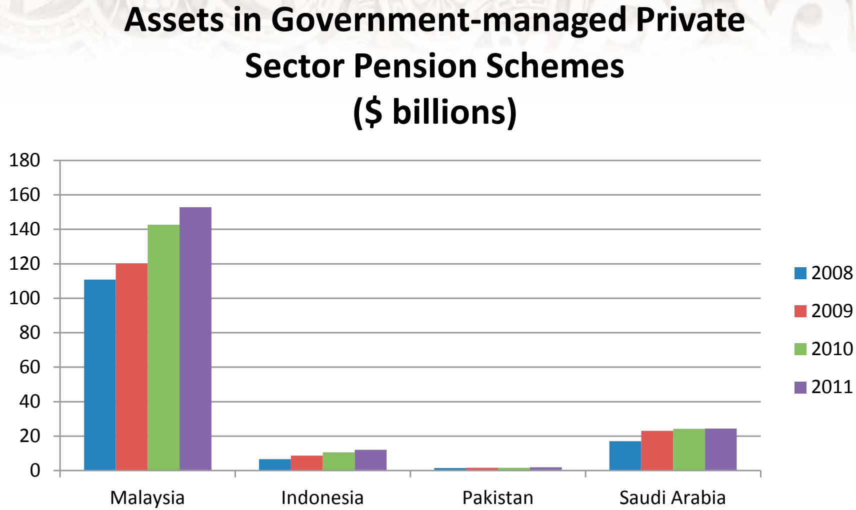
	2009	2010	2011
Annual Growth	11.5%	13.5%	11.5%

- The government pension benefit payments are relatively high in Turkey and Saudi Arabia because of very generous pension provisions.
- The annual government pension benefit payments have been increasing over the past several years at an average rate of 12.5% per annum and the trend is expected to continue in future, albeit at a higher rate, as the population demographics mature and more people reach retirement age.

Source : Government Social Security Institutions' and Ministry of Finance websites

Assets in government-managed private sector pension schemes in selected Muslim majority countries

Country	2008	2009	2010	2011
Malaysia	110.8	120.1	142.7	152.8
Indonesia	6.7	8.7	10.6	12.1
Pakistan	1.5	1.6	1.7	2.0
Saudi Arabia	17.0	23.1	24.2	24.4



- Among the selected countries, Malaysia has the highest assets, around $153 billion in government-managed private sector pension schemes.
- The pension assets have been growing over the past few years in all selected countries due to higher contribution inflows and investment earnings.

Source : Government Social Security Institutions' and Ministry of Finance websites

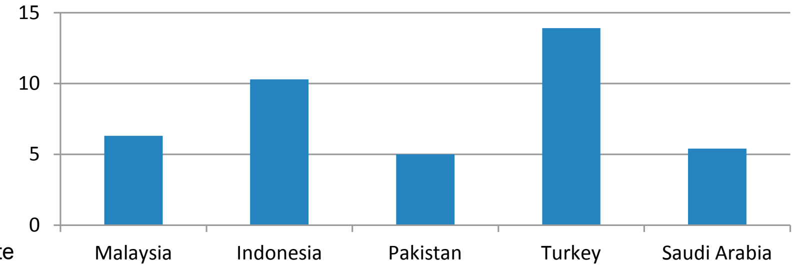
Active participants and pensioners in government-managed private sector pension schemes in selected Muslim majority countries

Country	Active Participants (millions)	Pensioners in Government Managed Private Sector Schemes (millions)
Malaysia	6.3	7.1
Indonesia	10.3	16.7
Pakistan	5.0	5.5
Bangladesh*	N/A	2.5
Turkey	13.9	7.7
Saudi Arabia	5.4	0.3

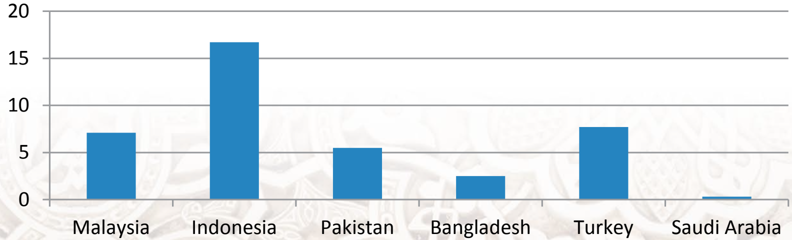
* In Bangladesh there is no government-managed private sector pension scheme but the government pays a means tested old age allowance.

- The number of active members and pensioners in government-managed private sector pension schemes is relatively high in countries like Malaysia, Turkey and Saudi Arabia, which facilitate such schemes with good regulatory framework and enforcement.

Active Participants in Government-managed Private Sector Pension Schemes (millions)



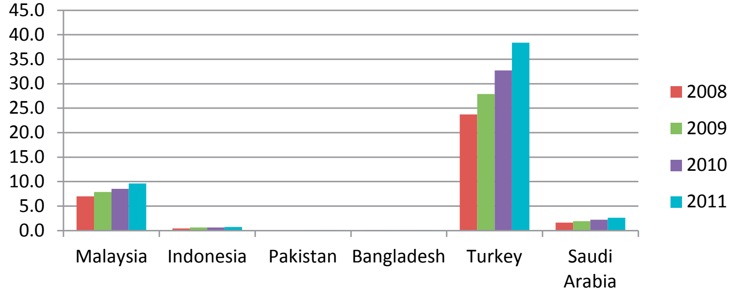
Pensioners in Government-managed Private Pension Sector Schemes (millions)



Source : Government Social Security Institutions' websites

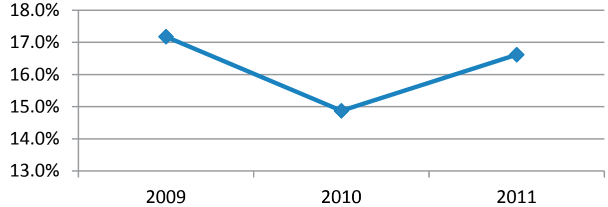
Pension benefit payments in government-managed private sector pension schemes in selected Muslim majority countries

Government-managed Private Sector Pension Benefit Payments ($ billions)



Country	2008	2009	2010	2011
Malaysia	7.0	7.9	8.5	9.6
Indonesia	0.4	0.6	0.6	0.7
Pakistan	0.0	0.1	0.1	0.1
Bangladesh	0.1	0.1	0.1	0.1
Turkey	23.7	27.9	32.7	38.4
Saudi Arabia	1.6	1.9	2.2	2.6

Annual Growth in Government-managed Private Sector Pension Benefit Payments



	2009	2010	2011
Annual Growth	17.2%	14.9%	16.6%

- The pension benefit payments in government-managed private sector pension schemes are relatively high in Turkey and Saudi Arabia because of very generous pension provisions.
- The annual pension benefit payments have been increasing over the past several years at an average rate of 16% per annum and the trend is expected to continue in the future, albeit at a higher rate, as the population demographics mature and more people reach retirement age.

Source : Government Social Security Institutions' and Ministry of Finance websites

Need for an Islamic occupational pension plan

Occupational pension pillar and annuities

In an occupational pension pillar, employees and their employer contribute towards a pension scheme, hence it is a funded pension. Upon retirement, a lump sum or an annuity is made available to the pensioner. Depending on the law of the land, part of the lump sum may be retained tax-free and the remaining portion can be used to purchase an annuity (the case in most developed nations). Tax exemption is given in order to encourage saving towards one’s old age and the annuity helps to mitigate the financial risk post-retirement.

A lifetime annuity (referred here as simply an annuity) is a contract between an insurance company and a pension scheme member. The member hands over all or part of their pension fund to the insurance company, which then agrees to pay out an income to the scheme member for the remainder of that person's life. The annuity would be paid on a monthly, quarterly, half-yearly or annual basis.

An annuity therefore is a financial contract that provides regular income to the annuity purchaser for his or her remaining life.

Phases in a pension scheme

There are two phases in a pension scheme:

•The **accumulation phase** when the contribution is made to the pension fund and it is invested in the fund to meet future annuity payments during retirement. This phase is not problematic from an Islamic point of view as an Islamic investment fund can manage this portfolio.

•The **decumulation phase** when the time comes to pay for the lump sum and ultimately to facilitate the purchase of the annuity.

An annuity is a financial product sold by financial institutions that is designed to accept and grow funds from an individual and, upon annuitisation, to pay out a stream of payments to the individual at a later point in time. This structure needs to be analysed from an Islamic perspective because being a contract of exchange (‘aqd al-mu’awadhah), it will attract riba (interest), gharar (uncertainty) and maysir (gambling).

An annuity will attract riba because the income received may be more than what one pays to purchase the annuity. Secondly, it contains an element of gharar as one does not know for how long he will live and hence the amount he will receive is highly unpredictable. The third issue is that the insurance company that provides the annuity will underwrite the post-retirement payments on the actuarial basis, assuming the person will die at a certain age and hence is willing to take that risk. The person who buys the annuity cannot know how long he will live and could prefer an annuity, this brings an element of maysir.

These haram elements demand that Muslims start thinking about an Islamic occupational fund model.

Jurisprudential (fiqh) issues with annuity

Annuity

- Riba
  - 1.Receiving or paying unequal amounts of money.
  - 2.Investment in interest-based transactions.
- Gharar
  - Unknown number of years for which annuity is to be paid.
- Maysir
  - Insurance company will underwrite the risk based on its actuarial value. This is considered to be a form of gambling.

Jurisprudential (fiqh) issues with pension structures

Defined Benefit: attracts *riba* and *gharar* because one will receive more than what was contributed; and secondly, the types of investments are bonds and fixed-income generating instruments.

Defined Contribution: seems to be less risky from an Islamic point of view as the contributor decides where to invest, and also bears the risk of the investments. However, this is prone to a certain level of *ghaban* (misappropriation or defrauding others with respect to specification of the goods and their prices) caused by the principal-agency issue because the layman does not know much about investments and the pension company is charging an administration fee.

Further jurisprudence (fiqh) considerations

Besides the issue of annuity, there are other problems with the conventional pensions that warrant an Islamic version of occupational pensions. The issues are as follows:

Inheritance: The right to claim the lump sum to buy the annuity accrues after retirement. If the contributor dies before retirement, the money is supposed to go to his estate and be distributed among his heirs. It should not be distributed to nominees because the real ownership comes into existence after his death only.

Divorce: Often the actuarial value for the lump sum to be received is a source of contention between spouses in the case of divorce. In Islam, a contract of marriage (nikah) is not an economic venture or partnership between spouses as it might be in some legal systems.

Zakah payable: Islamic scholars have some difference of opinion as to whether zakah is payable on the actuarial value of a pension. This is a very important issue to consider. It depends mainly on the structure of the scheme and mode of funding.

Nature of contract of an annuity: Is the contract a guarantee or a promise? This has legal consequences. The case laws are not clear about this.

Availability of long-term Islamic investment instruments: As a pension is a long-term benefit, it is often difficult to find the right assets for long-term investments. Islamic bonds are constructed through financial certificates (sukuk), which have durations typically of 5-10 years.

Zakah on pensions

Contemporary Muslim jurists are of the view that when a person contributes to a pension, whereby he does not have any say on the investment or any control on the pension pot, then what he receives upon retirement is part of his salary package, the payment of which has been delayed. Hence, zakah is not payable on this amount because he does not own it until he receives the lump sum.

But if the employee has control over his contributions and investment options, then he is deemed to be the actual owner of such money contributed and he has to pay zakah as it is similar to a saving.

The table below depicts the various scenarios regarding the issue of zakah and pension.

	Defined Benefit	**Defined Contribution**
Pre-retirement (before withdrawing income)	No zakah is payable	Zakah is payable on all the pension pot
Post-retirement (after withdrawing income)	Zakah is payable	Zakah is payable

Sharia versus conventional DC pensions

	Conventional Defined Contribution Pension	Sharia Defined Contribution Pension
Investments	No restrictions other than local regulations	Sharia-compliant options
Cash	May or may not pay interest	Interest is not paid
Withdrawing pension	Drawdown and annuity options	Annuity not permitted
Pre-retirement death benefits	As per expression of wishes, but up to trustees	Islamic Inheritance Law
Post-retirement death benefits	As per annuitant's instructions	Islamic Inheritance Law

Longevity risk and suggested models for Islamic pension funds

Decomposition of longevity risk

Longevity risk is the risk that a policyholder lives longer than anticipated.

Government needs to provide hedge

Total longevity risk

=

Aggregate longevity risk

(Trend risk)

+

Specific longevity risk

(Random variation risk)

Private sector can hedge

Source: Blake, D., Boardman, T. and Cairns, A. (2010), Sharing Longevity Risk:Why Governmnets Should Issue Longevity Bonds, London: Pension Institute.

Longevity bond and longevity sukuk (1)

Longevity bond:

- Longevity bonds pay declining coupons linked to the survivorship of a cohort of the population, say 65-year-old males.
- In this case, the coupons payable at age 75 will depend on the proportion of 65-year-old males who survive to age 75.
- The coupon payments continue until the maturity date of the bond: e.g., when the cohort of males reaches age 105.
- A longevity bond pays coupons only and has no principal payment.

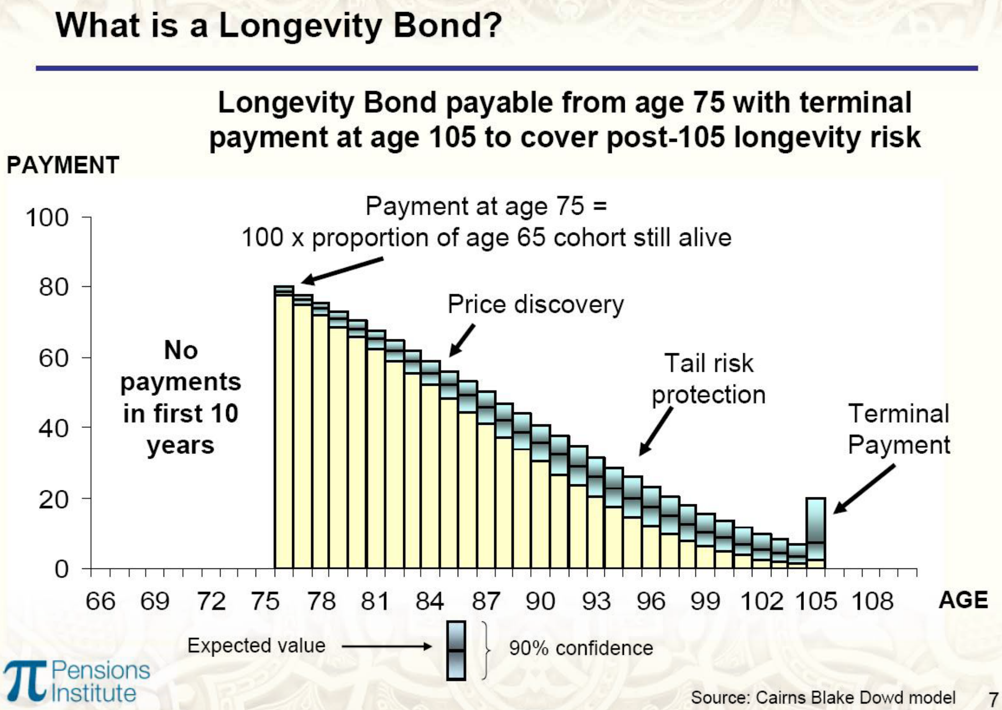
Longevity sukuk:

- The concept of a longevity bond can be used to develop longevity sukuk.
- The underlying spirit of Takaful fits squarely in the government longevity sukuk concept through the mechanism of wa’ad (promise or undertaking).
- As in a longevity bond, no repayment of principal is involved.
- Alternatively, an investment waqf (trust) mechanism can be designed.

Assets:

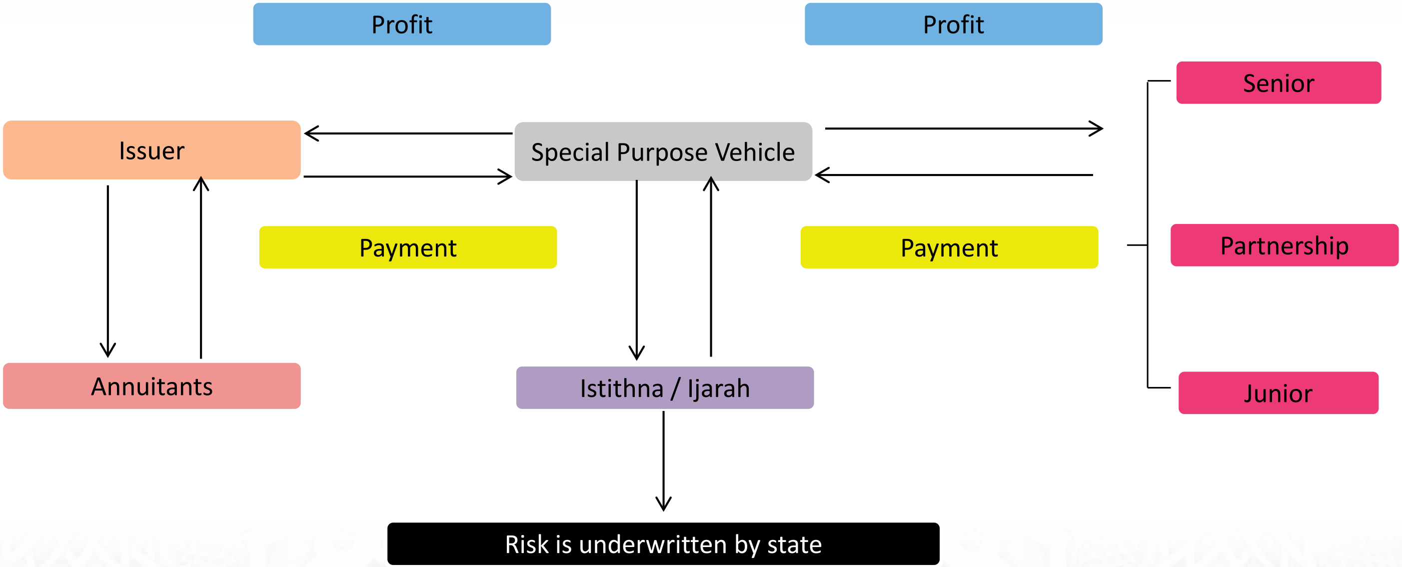
- Corporate – government longevity sukuk.
- Sovereign – normal investment sukuk.

Longevity bond and longevity sukuk (2)



Source: Blake, D.., Cairns, A. and Dowd, K. (2006), *Living with Mortality: Longevity Bonds and other Mortality-Linked Securities*, Paper Delivered at the Institute of Actuaries, 16 January 2006.

Proposed tranched longevity sukuk based on istithna'-cum - ijarah model



The diagram is explained in the following two pages.

Mechanism of the istithna'-cum-ijarah sovereign sukuk (1)

A Special Purpose Vehicle (SPV) is created by the state to organise and supervise long-term infrastructure projects (istithna'), for instance highways (toll-roads), airports and other such projects, which can be leased after completion. The rent income received can be used to service the sukuk.

There will be two levels of sukuk issuance, one for the employees who need to mitigate their longevity risk, and the second is the investors from the public domain. Hence two levels of cash inflows are generated.

Regarding the employees' investment in longevity sukuk, a special issuer will be established to deal with the issuance of the longevity sukuk. These are to be cashed after maturity post-retirement age. Technically, the employees purchasing them will be potential annuitants.

The sukuk will be issued with a maturity of 10, 20 or 30 years, similar to the coupon of a longevity bond with a maturity period. The annuitants can decide what maturity period of sukuk they want and cash them for a terminal payment as per the selected time frame.

Mechanism of the istithna'-cum-ijarah sovereign sukuk (2)

The usual investors then can deal directly with the SPV. Three types of sukuk can be used to spread the risk and also to meet the different risk appetites of investors.

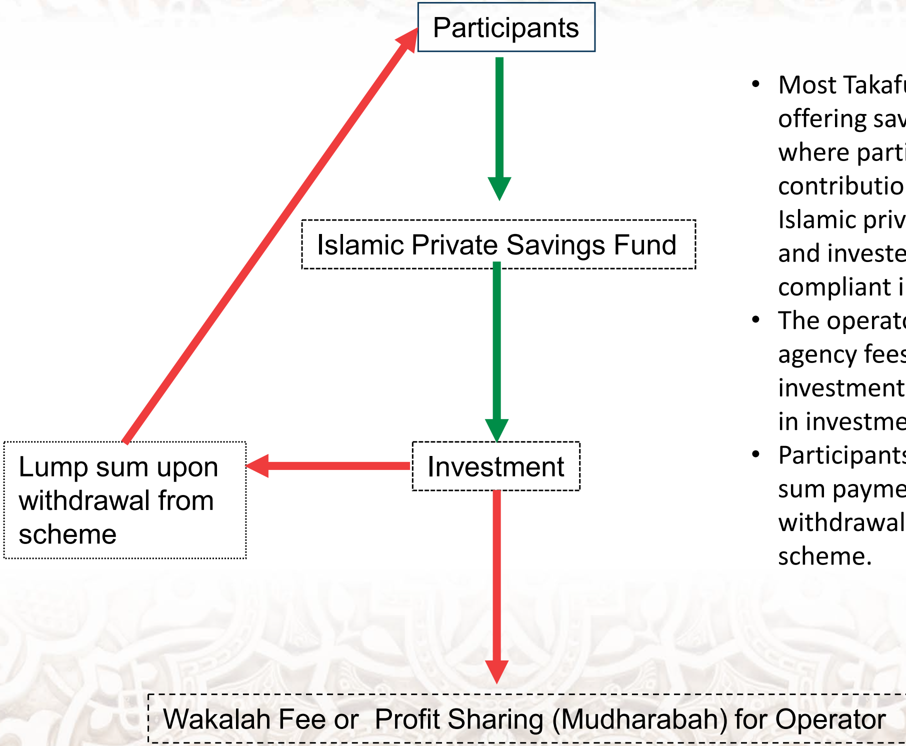
Senior level and **Junior** level investors will be determined as per the sukuk denomination and risk profile in the sukuk they decide to buy. Various forms of ijarah rent income can be arranged.

There can also be a mudharabah sukuk (**partnership**) whereby the risk can be higher but the return also can be higher.

As the purpose of the longevity sukuk is mainly to mitigate the aggregate longevity risk, the state should underwrite the risk in the project during the securitisation process.

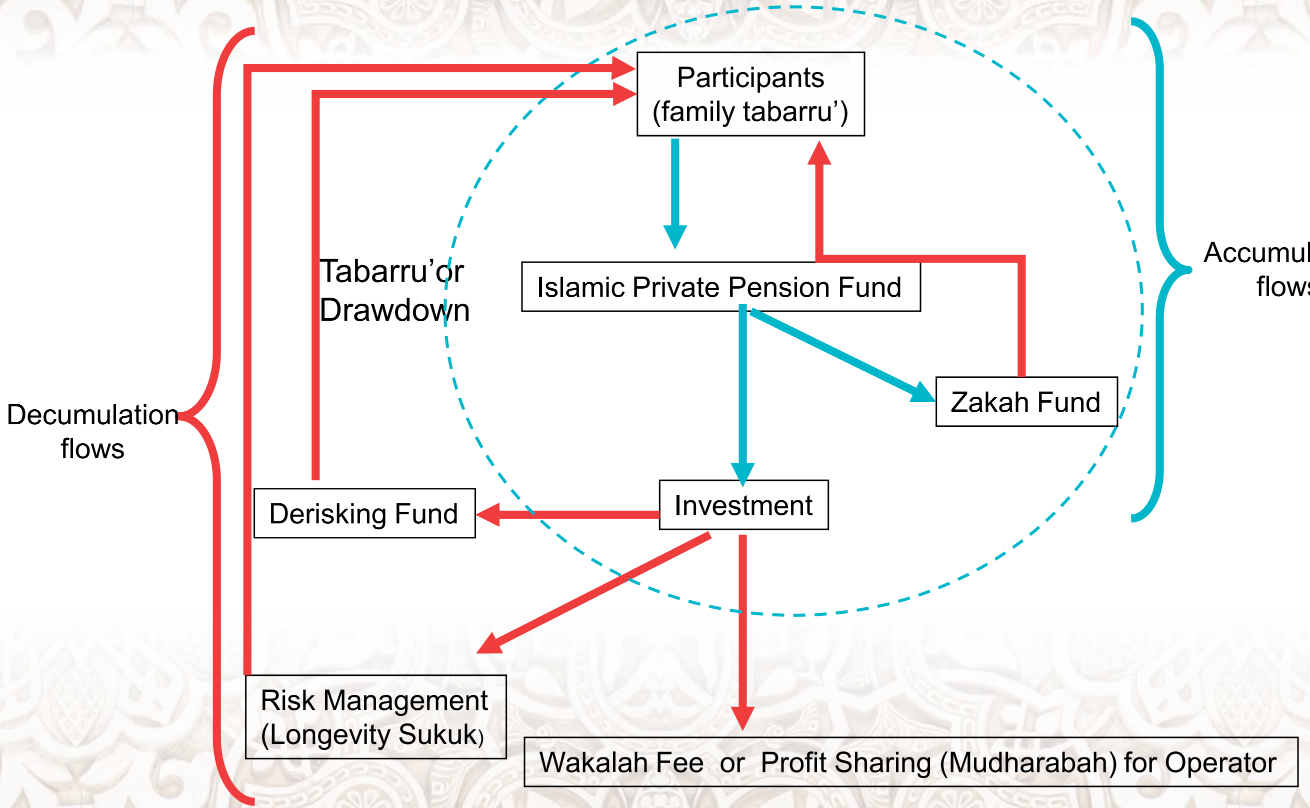
Once the project becomes operational, the rent income generated can be used to serve the various levels of sukuk issued.

Structure of private occupational/individual savings products being offered by Takaful operators



- Most Takaful operators are offering savings products where participant contributions are pooled in Islamic private savings funds and invested in Sharia-compliant investments.
- The operator receives the agency fees from the investment fund or a share in investment earnings.
- Participants receive lump sum payments upon withdrawal from the scheme.

Suggested model for private occupational Islamic pension fund



Mechanism for private occupational Islamic pension fund (1)

- The proposed model is to create an accumulation phase and a decumulation for an Islamic occupational pension fund.
- It is an endeavour to eliminate the issue of riba, gharar and maysir by using the *‘uqūd al-Tabarru’āt* (contract of donation), implemented via a *wa’ad iltizāmi* (self-imposed promise) which is binding legally.
- Participants undertake to donate money (family tabarru’) based on a wa’ad iltizami to a pension pot. This is a unilateral contract and thus does not attract riba, gharar or maysir according to Islamic law.
- The family tabarru’ is meant to cover the family in case of premature death of the participant and this might eliminate the inheritance issue.
- The money goes into the pension fund which can be held by a trust.
- The donation is then invested as per Islamic principles; the pension company will act as a wakeel to manage the fund or it can be a mudharib in sharing profit from investment of the fund.
- Some scholars are of the view that the Trust as a legal entity should pay zakah. However, the money can go back to the deserving participants to provide income during retirement.

Mechanism for private occupational Islamic pension fund (2)

- In the present day scenario, there is a need to consider longevity risk. The wakeel/mudharib may invest in longevity investment instruments such as long-term infrastructure projects on behalf of individual contributors.

- As the participant cohort matures and reaches retirement age, a de-risking strategy is needed to ensure that there is enough cash to sustain the annuitants.

- Upon retirement, participants can receive monthly income from longevity sukuk. Also, participants can cash their longevity sukuk upon maturity for a terminal payment.

- Alternatively, as a substitute for annuity, a lump sum can be given to the participants as a tabarru' on the basis of a wa'ad iltizami. The participants may invest the lump sum on retirement in a Takaful company product and opt for a drawdown mechanism to mimic a pension or the Takaful company can promise a regular fixed sum or variable sum for a fixed period as a monthly income.

- Another solution is that the Takaful company also makes a *wa'ad iltizami* to look after the annuitant for a certain number of years.

Appendix

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Key sources of data

Malaysia Department of Statistics website www.statistics.gov.my
Malaysia Public Service Department website www.jpapencen.gov.my
www.kwap.gov.my
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An Appraisal of Longevity Risk: Conventional and Islamic Perspectives by Sheikh Faizal Ahmad Manjoo

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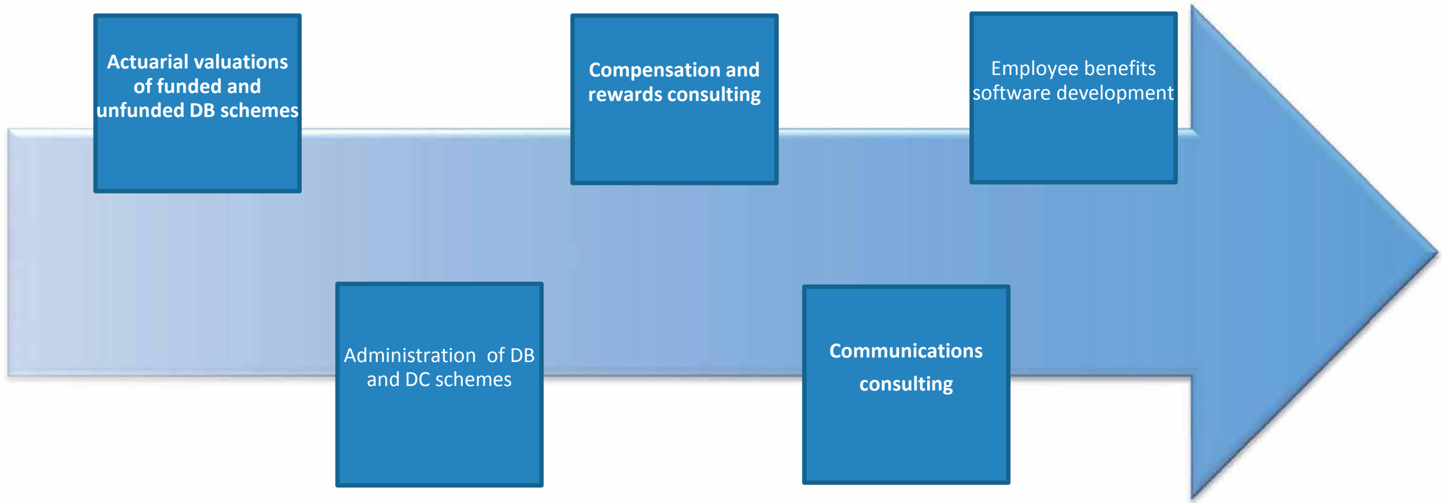
We have acquired significant experience in employee benefits consulting from working in a number of key areas that position us well to assist our clients, as below:



Milliman's team of pension experts recently published a white paper titled, "LongevityPlan", which can be found on our web site at www.milliman.com.

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