Institute of Actuaries of India

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the Actuary INDIA

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INDIAN ACTUARIAL PROFESSION
Serving the Cause of Public Interest

THE ORIENTAL INSURANCE COMPANY LIMITED

(A Govt. of India Undertaking)
A-25/27, Asaf Ali Road, New Delhi - 110 002

CIN : U66010DL1947GOI007158 **Website : http://www.orientalinsurance.org.in**

Applications are invited for the post of Full Time "Äppointed Actuary" from the candidates who are ordinarily resident in India as per IRDAI (Appointed Actuary) Regulations, 2017.

The application of candidates, who had applied in response to our July 2020 advertisement for Appointed Actuary, shall be considered for this excercise.

Name of the Post	Appointed Actuary
Number of Posts	One (1)
Eligibility	• The candidate should be a Fellow member in accordance with the Actuaries Act, 2006 • Passed specialization subject in General Insurance (Specialist Application level subject as prescribed by the Institute of Actuaris of India) or exempted from requirement of passing the subject specialisation as provided under IRDAI (Appointed Actuary) Regulations, 2017. • The candidate should have minimum 7 years relevant experience in General Insurance out of which at least 2 years shall be post fellowship experience. • The candidate should have at least 1 year post fellowship experience in annual statutory valuation of a general insurer. • The candidate should satisfy all requirements as specified in IRDAI (Appointed Actuary) Regualtions, 2017 (including amendments/modification, if any).
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Service Conditions	• Should be a resident of India, • After appointment he/she cannot be an Appointed Actuary of any other Insurance Company nor work in any other capacity in any General Insurance Company. • As specified in IRDAI (Appointed Actuary) Regulations, 2017.
Selection Procedure	Interview. The employment will be on contract basis.
How to Apply	Application complete with a details of past work experience and copies of requisite certificate/documents should be mailed to arvindsaxena@orientalinsurance.co.in by 9th November, 2020 The hard copy of the application along with recent photograph may be sent on the following address: **Dy. General Manager(P), The Oriental Insurance Company Limited** **"Oriental House", Head Office, A-25/27, Asaf Ali Road, New Delhi-110002**

General Instructions:

1. Company reserves the right to reject any Application without assigning a reason
2. The decision of the Company will be final and binding in all the matters.
3. In case it is found at any stage of recruitment that the candidate does not fulfil the eligibility criteria and/or he/she has furnished any incorrect/false/incomplete information or has suppressed any material fact(s), the candidature will stand cancelled. If any of these shortcomings are noticed even after appointment his/her services are liable to be terminated forthwith. Before applying for any post, the candidate should ensure that he/she fulfils the eligibility and any other norms mentioned in this advertisement. The decision of the Company in respect of the matters concerning eligibility of the candidate, the stages at which such scrutiny of eligibility is to be undertaken, the documents to be produced for the purpose of conduct of interview selection and other matters relating to recruitment will be final and binding on the candidate.
4. The Company shall not entertain any correspondence or personal enquires. Canvassing in any form will disqualify the candidate.
5. Appointment will be subject to approval of Insurance Regulatory Development Authority of India.

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"A noble man's thoughts will never go in vain. -Mahatma Gandhi."
"I hold every person a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavour themselves by way of amends to help and ornament thereunto - Francis Bacon"

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From Chief Editor's Desk

Ms. Bhavna Verma

I start this editorial by extending my heartiest congratulations to Subhendu on being elected as new President of the Institute of Actuaries of India. Subhendu has extensive experience in the industry, Council, Advisory Groups and matters of the Institute for several years now, and I'm sure his tenure will be a fruitful one in these challenging times. In this issue, you will be able to learn more about and hear from the new President Subhendu Bal, in addition to event reports and features.

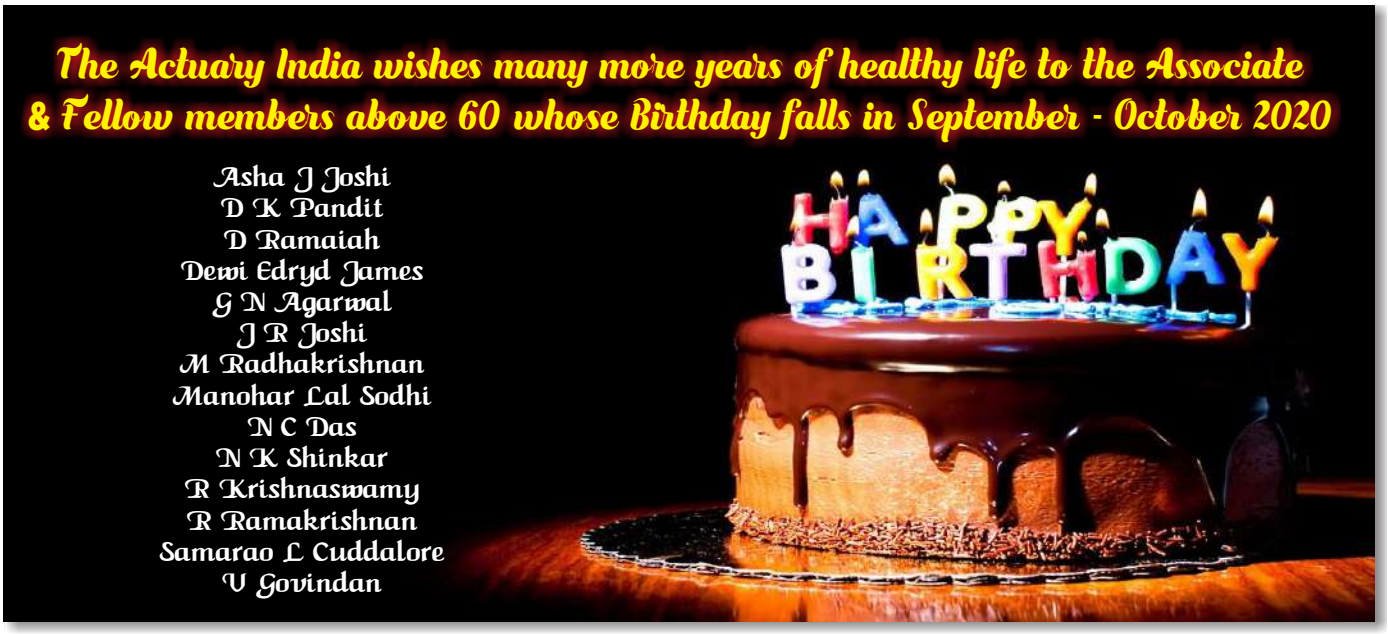
I would also like to thank Sunil for all his contributions to the profession in his tenure as President and previously as Council Member. Under his leadership, the Institute has taken big leaps towards intensifying focus on non-core areas such as data science and analytics, banking, finance and investments and IFRS17 through the constitution of focused Advisory Groups and their regular knowledge sharing. Sunil has also worked passionately towards initiatives for increasing awareness about the actuarial profession and raising the profile of the Indian actuarial profession among the international actuarial community.

My best wishes also to the four newly elected Council members KS Gopalakrishnan, Preeti Chandreshekhar, Anurag Rastogi and Raunak Jha who bring a lot of diversity and wide ranging experience to the Council. I'm sure that as representatives of the profession, they will be able to play an effective role in driving the goals of the Institute and matters of importance such as attracting talent to the profession, intensifying research initiatives,

generating wider opportunities for actuarial professionals among others.

Good luck to all the students attempting the November examinations. I hope all candidates made good use of the mock examination facility to understand the online process and its requirements, to gear up for the actual examinations.

As always, we would love to hear from you. It will be great to hear some experiences from the current lockdown phase and how it has altered your work practices and people engagement. Do write in to us at library@actuariesindia.org.



From President's Desk

Mr. Subhendu Bal

Dear Members,

I Trust all of you are well at your end. Your family and friends are safe and well.

It is my pleasure sharing first Presidential Column in the September 2020 issue of the Actuary India magazine- the mouthpiece of the Actuarial Profession in India. The Council elections were held in decent manner and four new members were elected to the IAI Council. I congratulate to all four newly elected members. There were total nine contestants and few of them could not make it to the Council. However, I thank them that they made election a democratic process. I also thank four outgoing members of the Council, which consisted one Past President and one outgoing President.

I thank all the Council Members for their confidence on me and giving the responsibilities of the President. I heartily accept the role and responsibilities of the President and thank to media for their widespread coverage. This is the testimony of the Actuarial Profession and the Institute of Actuaries of India.

I am fully aware that to shoulder the roles and responsibilities of the President, IAI even in normal circumstances are not so easy and the current pandemic situation makes it more complex. The face to face interaction with the members during initial period could be of paramount importance to perform my roles. But I am pretty sure that with all your support I would be able to carry on the responsibilities in befitting manner.

The Actuaries Act 2006 is the statute coupled with the Constitution of the Country which govern the Actuarial Profession in India. I would ensure that there is compliance of the Act, regulations framed therein, APS and GNs and Country's governing laws.

I would ensure that members' services are continually provided on smooth manner and for this I would depend on IAI administrative staff. There would be vacancies filled in at the earliest and depending on the situation there could be new recruitments. I also depend on other actuarial friends and seniors from outside the council to support and help me to perform better for the profession.

IAI Council has taken important decisions in the past. Those decisions in process of implementation would be implemented at the earliest. It would be ensured that interactive IAI website is delivered with new look and feel, the work on having our own study material is undertaken on war footing and Profession is taken to wider areas such as Data Science, Banking, risk management and similar areas, etc.

To strengthen the financial position of IAI would also be priority. In current situation this could be a little challenge. There is enough scope in education, training and examination related counselling. The webinars would be continually held and more students would be encouraged to take actuarial profession and so ACET examinations would be popularized.

The relations with other actuarial bodies would be strengthened and existing relations with IAA, IFoA, SoA, CAS, ASSA and Institute of Actuaries of Australia would be taken to the next level. The relations with all the stakeholders of Actuarial Profession within country would be strengthened.

The Profession lost many veteran Actuaries in last one year. I pay my homage to them. I seek the blessings of seniors.

There used to be on-line examination in R, Excel and modelling. In addition to these examinations the other Core Principles, Core Practices, Specialist Principles and Specialist Advanced level examinations would be held on-line from home in November 2020. I urge to all the students sitting in the examinations to read the detailed instruction given by the Examination Team. We have conducted the Mock examination for better understanding of the process along with the look and feel of this new examination system, so that it would help the candidates to be aligned in this new online process and get comfort before the day of the actual examination. I wish success to the students taking the examinations and are well prepared.

I seek support of all the members and Government and Regulator representatives in the Council. The feedback and suggestions would be most welcome at president@actuariesindia.org.

I would request all to take care of your health and stay safe in this difficult situation, and I am confident all of us will come out of the current Pandemic.

I close my first President Column with the following quotes of Lyndon b Johnson *"If we succeed, it will not be because of what we have, but it will be because of what we are; not because of what we own, but, rather because of what we believe"*

Introduction to new President, Mr. Subhendu Kumar Bal

Subhendu Bal is presently the Chief Actuary & Chief Risk Officer (CRO) of SBI Life Insurance Co. Ltd. He is highly qualified and has been a valuable contributor to the performance of our Company in his various capacities with us. He is clear in his concepts and articulates his ideas in all internal forums so that we get the benefit of his experience.

I wish him all the best and our congratulations to him on his being chosen as the President of the Institute of Actuaries of India.

Mr. Mahesh Kumar Sharma
MD & CEO
SBI Life Insurance Co. Ltd.

I have known Shri Subhendhu for over eighteen years. We worked together at Metlife India Insurance for a couple of years and subsequently we have interacted frequently on several initiatives related to the education programmes of the Institute.

I have always found Shri Subhendhu to be completely dedicated to the task on hand; and has consistently displayed an unflinching commitment to strive for excellence in all his professional endeavours.

I wish Shri Subhendu all success in his role as the President of the Institute of Actuaries of India.

Dr. K Sriram
Consultant Actuary

"Subhendu has been a tireless worker for the IAI over the years being active across a wide gamut of the actuarial profession's activities with a particular passion for enhancing the IAI student experience. Coupled with his extensive experience of the Indian marketplace garnered by working across the length and breadth of the country he is well equipped as President to take the IAI to even greater heights over the coming years which is the need of the hour. As an individual he is extremely approachable and very open to new ideas which will no doubt serve the IAI well."

Mr. Heerak Basu
Consulting Actuary
Milliman India Private Ltd

I would like to convey my heartiest congratulations to Subhendu Bal for taking over as new President of IAI.

I know Subhendu over decades. He has always ensured contribution to the Indian Actuarial Profession as one of his key priorities and has made immense contribution to the profession in various capacities.

I would like to thank him for all his contribution in education, examinations and professionalism during my tenure as President from 2018-2020. I am confident that he will continue with the growth agenda during his tenure, accomplish various initiatives in pipeline and take Indian Profession to the newer heights.

I wish him all the best.

Mr. Sunil Sharma
Kotak Mahindra Life Insurance Co. Ltd.

I met Subhendu way back in 2005 when i joined AMP Sanmar Life in Chennai. We became friends instantly and i still remember spending hours talking to him on various things. He is a sincere, committed and tries to put in his 100%. He was the chairperson of examination advisory group when i was the president of the Institute. Even though we had differences in our views on few things, he kept performing with the same zeal as if his philosophy is karmanyevadhikaraste maa falesu kada chan (put this in hindi). I wish him all the best in his new role as president and am sure that profession will achieve great heights.

Mr. Rajesh Dalmia
Partner
EY Actuarial Services LLP

Subhendu is closely known to me from days we worked in LIC, our first employer. Since then, we regularly met during actuarial study sessions, seminars and conferences, finally as council member of IAI.
He is a fast thinker and executor for all situations, be it personal or professional. Subhendu, as I know, is also a seasoned actuary who captures the big picture of anything professionally he involves.
He is very energetic and I am sure that he will be bringing in inspiring initiatives for the Actuarial profession in India.
My best wishes to him in the new role.

Mr R Arunachalam
Consultant Actuary

Subhendu is one of the most enthusiastic and energetic personalities, always batting on the front foot and never taking things on the sidelines or sitting in the stands! (Unless of course he decides to do so)
Always loves participating in antakshari, fun games and team activities, jovial in nature and has a deep knowledge of Bollywood!
On a lighter note, always very frank and reinforces that every time, 'To be very frank with you…'

Mr. Kailash Mittal
FRM - Actuarial
KPMG

I have known Subhendu sir for over ten years and I consider myself lucky to work with him over these years. He is a great boss and an empathetic leader. He is always approachable by the team members to discuss any issues - be it something related to work or personal.

A few years back Subhendu sir organised and hosted a 'fun quiz' during offsite. This turned out to be an instant blockbuster. It was a new kind of quiz experience and we enjoyed it thoroughly.

Subhendu sir is very health conscious and likes participating in marathons.

I am sure under the leadership of Subhendu sir, the institute will keep on carrying forward the good works and scale further heights.

Mr. Ashish Ranjan
Member
Advisory Group on
Risk Management

I have known Subhendhu ever since he joined SBI Life in the Actuarial Team. I have seen him grow in the organisation from Dy. Chief Actuary to Appointed Actuary to his current role as Chief Actuary & Chief Risk Officer. He has brought out a new dimension to the team and the kind of business that SBI Life has done in so many years which has taken it to the "Numero Uno" position in Private Life insurance companies. His deep sense of understanding of Actuarial subject, his marketing acumen which helps him to look from the Marketing & Sales angle of the products, including designing, and his understanding of the Indian Socio Economic conditions have helped the company in designing some of the best life insurance products.

I am very happy to note that he has been elected as the President of the Institute, that is so close to his heart. His dedication in the working of the institute and love to do some thing & contribute to the Actuary community is simple emulating. I am sure he will take the Institute to greater heights. I wish him all the very best in this tenure as President of the Institute. God Bless.

Mr. Anand Pejawar
President - Operations,
IT & International Business
SBI Life Insurance Co. Ltd.

I term Subhendu as soldier of the Actuarial Profession in India. Encouraging students and fellow colleagues to take up Actuarial Science as career option is his passion. He served many years as Chairperson, IAI Advisory Group on Examinations. He was instrumental in bringing in many changes in the IAI examination system in order to enhance the confidence into the system.

I got chance as then Executive Director to closely work with him when he got elected to IAI Council in year 2018. He immediately assumed the responsibility of Honorary Secretary. Mr. Sunil Sharma, immediate Past President used to visit IAI Office on each working Saturday and Subhendu used to join him without fail. Both used to discuss the Professional matters and work late till night. Sunil had absolute faith in Subhendu. I believe the IAI white boards were used maximum during this period for planning and drafting communications.

A person of details and pleasant personality, Subhendu has assumed the responsibilities of the President in critical time of pandemics. Though IAI has virtually managed the work successfully yet there is no substitute to the face to face interactions. During initial period of new role it becomes of paramount importance.

My hearty congratulations and good wishes to Subhendu. The success of Subhendu as President of IAI during these difficult times would be the collective success of Actuarial Professionals across board and of the Council, IAI. I also wish that he proves his name which means 'Blessed Moon'.

Mr. Dinesh Chandra Khansili
Former Executive Director,
IAI

Media Coverage

Members of the newly constituted Council with effect from 5th September 2020

As per the provisions of the Actuaries Act, 2006 the Election of the Council conducted in 2020.

Four members who were elected in year 2014 got retired on 5th September 2020;

1) Mr. Sunil Sharma, immediate past President
2) Mr. Dhiraj Goel
3) Mr. Sanjeeb Kumar, Past President
4) Mr. R Arunachalam

Following members were elected to the Council and filled the four vacancies due to above retirement in the Council Election 2020:-

1) Mr. K S Gopalakrishnan
2) Mr. Anurag Rastogi
3) Ms. Preeti Chandrashekhar
4) Ms. Raunak Jha

The Council as on 5th September 2020:

Mr. Subhendu Kumar Bal
President

Mr. K S Gopalakrishnan
Vice President

Ms. Preeti Chandrashekhar
Honorary Secretary

Smt. Dakshita Das
Member - Nominated as per Govt. of India - Notification dated 06/05/2020

Mr. Lalit Kumar
Member - Nominated as per Govt. of India - Notification dated 05/03/2019

Mr. K Ganesh
Member - Nominated as per Govt. of India - Notification dated 11/03/2020

Mr. Abhay Tewari
Member

Mr. Anil Kumar Singh
Member

Mr. Anurag Rastogi
Member

Mr. K Subrahmanyam
Member

Mr. Mehul Shah
Member

Mr. Parmod Kumar Arora
Member

Mr. Pravir Chandra
Member

Ms. Raunak Jha
Member

Mr. Richard Holloway
Member

On 3rd October 2020, the President in consultation with Council members reconstituted all Section 21 Committees as under:

External Affairs and Research Committee

Mr. Subhendu Kumar Bal (Chairperson)
Mr. Anurag Rastogi (Member)
Mr. Parmod K Arora (Member)
Ms. Preeti Chandrashekhar (Member)

Professionalism Committee

Ms. Preeti Chandrashekhar (Chairperson)
Mr. Abhay Tewari (Member)
Mr. Anil Kumar Singh (Member)
Ms. Raunak Jha (Member)

Audit Committee

Mr. Anil Kumar Singh (Chairperson)
Mr. Mehul Shah (Member)
Mr. Pravir Chandra (Member)
Mr. Richard Holloway (Member)
Mr. CA. Viren H Mehta (External Member)

Finance and Admin Committee

Mr. Subhendu Kumar Bal (Chairperson)
Mr. Parmod K Arora (Member)
Mr. Pravir Chandra (Member)
Mr. Richard Holloway (Member)

Education Committee

Mr. Abhay Tewari (Chairperson)
Mr. Anurag Rastogi (Member)
Mr. Mehul Shah (Member)
Mr. Pravir Chandra (Member)
Ms. Raunak Jha (Member)
Dr. K Sriram (Permanent Invitee)

Wider Fields Committee

Mr. K S Gopalakrishnan (Chairperson)
Mr. Anurag Rastogi (Member)
Mr. K Subrahmanyam (Member)
Ms. Raunak Jha (Member)

Membership Approval Committee

Mr. Subhendu Kumar Bal (President) - Chairperson
Mr. K S Gopalakrishnan (Vice-president) - Member
Ms. Preeti Chandrashekhar (Honorary Secretary) - Member

The functions of the committee are readily available on http://www.actuariesindia.org

3rd Webinar on Pensions, Other Employee Benefits & Social Security

17th Current Issues in Retirement Benefits 2020 – "To Annuity and Beyond..."

Date: 19st August 2020; Wednesday Time: 17:30 - 19:00 IST

Moderator: Kulin Patel, Chair, Advisory Group for Pensions, Employee Benefits and Social Security, IAI

Speakers: Sunil Sharma, President - IAI, Chief Actuary and Chief Risk Officer, Kotak Life Insurance

William Price, CEO -D3P Global Pension Consulting

Evan Inglis, FSA, CFA, Associate Director -D3P Global Pension Consulting

Introduction

Life Expectancy in India has increased significantly in past six decades. In addition, India is going to witness exponential increase in its old age population in next three decades. This demographic trend along with changing financial situation and desire of individual to have a retirement income makes it important to address the issue of providing retirees an option, which is better value for money, flexible and relevant to meet their payout requirement.

Kulin started the session by introducing the topic and speakers, following which Sunil addressed annuity business in India.

William and Evan discussed the retirement system payout and their comparative utility study.

Annuity Business in India

Increase in longevity, reduction in asset return, increase in inflation, unavailability of sufficient state pension are the various factors which increases the importance of annuity market in India. However, as of July 2020, combined AUM of NPS and Atal Pension Yojana is just 4.82 lakh crore.

There are some challenges in providing annuity product in India.

Pricing challenge, Pricing Annuity is extremely sensitive to change in interest rate. Annuity rates are guaranteed which adds to additional cost.

ALM challenge, as sufficient long-term bonds (over 20 Year term) are not available for Liability Driven Investment. Longevity bonds / swaps are not available to match longevity risk.

Retirement System Payouts

There is need to look closer into retirement payouts due to low financial literacy of individual, costumer not willing to provide large lump sum to purchase annuity and sometimes government promoting lump sum withdrawal from retirement fund to stimulate economy etc.

Too many annuity payout options often confuses the individual. Individuals like to keep their retirement fund with themselves instead of purchasing an annuity. However, such approach has significant investment risk and risk of outliving the fund.

Possible solutions to this problem are providing good default option during accumulation phase and working longer. Payouts that include return of premium after annuitant dies and income drawdown option with deferred annuity at older ages are good to incentivize annuity.

Longevity Risk in Retirement Payouts

Economic value of Longevity Pooling is the value created by retirement income as annuity compared to single lump sum. Study with standard life-cycle utility framework demonstrates that for equivalent retirement security, 25% to 35% more fund is required for lump sum compared to annuity, depending on an individual's wealth level and risk preferences. Value of longevity pooling increases as mortality and risk aversion increases while it decreases with increase in discount rate.

Fixed annuity, fixed percentage withdrawal, installment payments plus deferred annuity and payouts from uninsured variable longevity pool were compared. Payouts from longevity pool provides highest total payout and initial income at retirement. While fixed percentage withdrawal can provide highest

value to bequest, depending upon percentage though this method can have highest drop in annual payout as well.

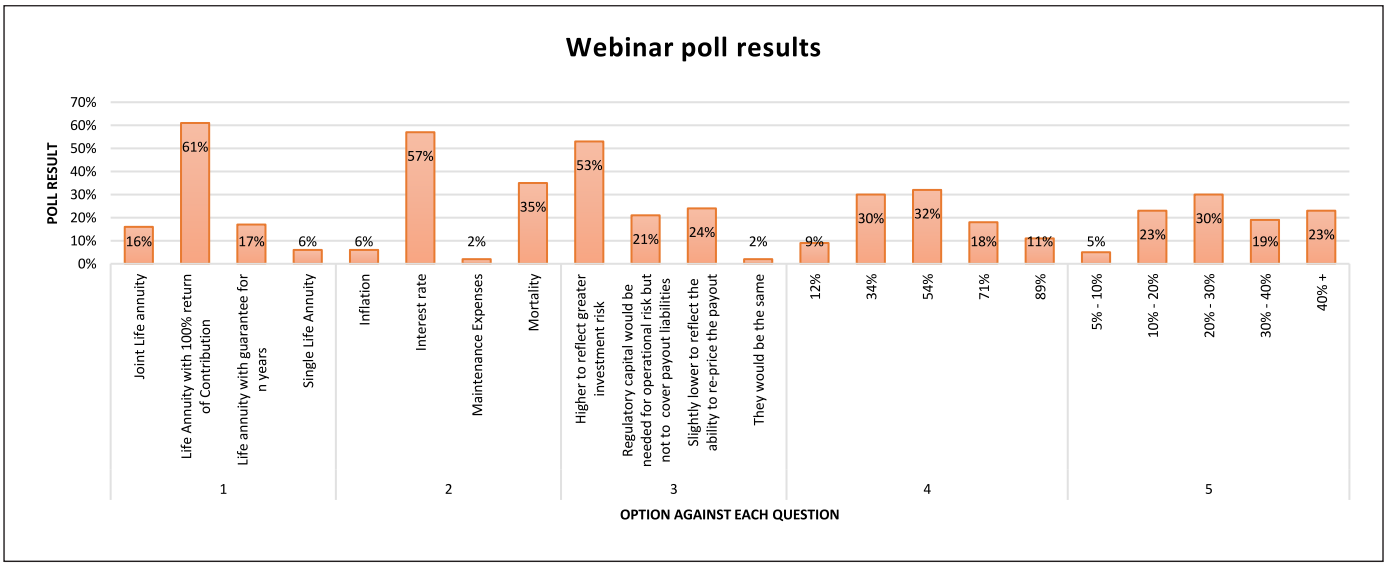
Key learnings and the way forward

We need to develop market of long-term bonds, longevity swaps etc. Government support is needed to incentivise the pension product and there is need to create awareness for making retirement planning as one of key goals.

Product like Variable Life Annuity, Guaranteed Minimum Income Benefit and Inflation Protection Annuity can be considered to meet the need of costumers. Even though most retirees prefer Lump sum as payment option but this option has significant investment and longevity risk. While getting the guaranteed annuity from insurer is expensive, payment options like installment payments plus deferred annuity and payout from uninsured variable longevity pool is low cost alternative.

In order to make the webinar more interactive, the organizers also arranged for few online poll questions.

1. Which type of annuity is mostly chosen by annuitants while buying annuity from Life Insurance Cos in India?
2. Life annuity rate is most sensitive to which assumption?
3. How would the regulatory capital requirements for a variable life annuity of the form outlined in the presentation differ from a traditional insurance provided life annuity?
4. UK ended effective compulsory annuitization in 2015. What percentage of people now choose an annuity payment as opposed to a 100% lump sum or a phased withdrawal?
5. How much additional savings is required to get the same retirement security from a single lump sum as from a fixed annuity?



Thank You

Written by

Neelesh Tripathi

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Neelesh Tripathi is an Associate member of Institute currently working as Lead Actuarial Specialist with Mercer Consulting (India) Private Limited.

EVENT REPORT

Webinar on Banking, Finance & Investments: Performance of Volatility Asset as Hedge for investor's portfolio against Tail Risk Events: COVID19 and 2008 Financial Crises

Date: 5th September 2020; Saturday Time: 15:00 - 16:30 IST

Presidential Address: Sunil Sharma, President, IAI

Chair: Phanesh Modukuru, Chairperson, Advisory Group on Banking Finance and Investments, IAI

Moderator: Mahidhara Davangere, Member, Advisory Group on Banking Finance and Investments, IAI

Speakers: Chinnaraja C, FIA, CERA, FRM, PRM, Secretary, Advisory Group on Banking Finance & Investments, IAI

Dr. Piyush Pandey, B.Tech, MFC, Ph.D. Assistant Professor, Finance, Shailesh J. Mehta School of Management, IIT-Bombay

Introduction

Recent events of market meltdown (COVID-19, Global financial crises 2008 etc.) indicate that extreme market moves occur more frequently than those predicted by statistical models. Interval at which such events occurred was nearly 5 times in last 20 years. Such events lead to financial loss and instability particularly for the financial institutions.

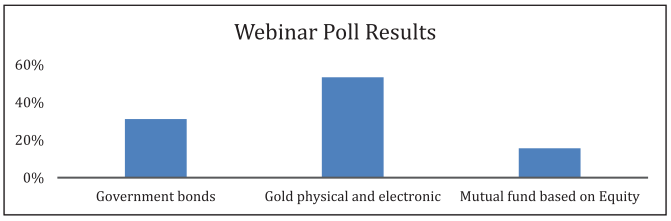
During extreme events, called Black Swan Events, the theories like Markowitz portfolio diversification and asset manager investment strategies goes for a toss. This is because most assets in the market start showing a downward trend and the correlation between different securities not only changes but becomes nearly impossible to gauge, leading to sudden and unpredictable nature of these tail events.

Asking the question of 'Now What?'., Chinnaraja C and Piyush Pandey started researching on the possibility of using "Volatility" as an asset class and the potential it possess to help asset managers and investors side-step the slump in the market. They used two Black Swan events which are 2008 Global Financial Crisis and COVID-19 Pandemic as basis.

Mahidhara Davangere started the session by providing his key observations on the current financial situation, which was then followed by the presidential address by Sunil Sharma who was supposed to retire the same evening from the position of the President, IAI.

Details of the presentation

The presentation started with a poll question where attendees are required to choose the asset class which they feel would be most suited to hedge the risk of Black Swan events or Equity market down fall.



Not surprisingly, 53% choose 'gold'. Whenever such crisis strikes, prudent asset managers and risk averse investors tend to opt for gold or government bonds. These are not full-proof hedge against the falling market. Moreover during 2008 crises, gold even sunk in the mid-2008 period before rising in 2009, which proves gold to be not a good hedge.

"Volatility Index" on the other hand can prove to be a good hedge. Volatility is generally considered as risk which results in fall in value of assets. Contrary to this, Chinnaraja C and Piyush Pandey researched on "Volatility" as an asset class in such Black Swan events.

Volatility Index (VIX) and VIX linked futures and Options

VIX marks the expectation of market volatility over the next 30 calendar days and creates a benchmark index known as Fear Gauge Index. This was started by the Chicago Board of Option Exchange. India has a VIX based on the securities listed with Nifty.

In order to hedge using VIX, investors and asset managers can invest in futures and options linked to the index known as volatility assets which are mostly available in developed countries.

VIX is inversely proportional to market performance, so

in times like COVID 19 when all major indices like S&P500 fell by 30% in just 16 days, the VIX linked options and futures will rise, offsetting the loss caused by the market slump.

Methodology

Chinaraja and Piyush collated time series data of asset classes, one on one comparison of different asset classes like gold, blue chip equity stocks in Indian and USA Markets and US ETF. The data was rescaled to 100 to ensure uniformity and the events of 2008 Global Financial Crisis and the COVID-19 pandemic were chosen to see how these asset classes reacted on these tail events.

They constructed a portfolio of blue chip India and US securities and made an alternative portfolio including US ETF (VIX based derivatives, since a similar counterpart was not prevalent in India) and used mean-variance analysis to judge how the VIX and non VIX portfolios performed on:

1. Maximizing Sharpe ratio
2. Minimizing volatility
3. Achieving target return of 10%
4. Achieving target volatility of 20% with max Sharpe ratio (for risk seeking investor)

The results show that return in the case of the VIX portfolio was able to help side step the market slump and help with earnings even in times of market crash. Additionally, even in times when the market is stable a small proportion (1% to 5%) of VIX does not lead to negatively skewed returns of the portfolio.

Conclusion

In the concluding note, both the researchers presented their findings from the point of view of two major stakeholder groups; asset managers and policy makers.

From the Asset managers' perspective: They would want negatively correlated assets to increase diversification benefit and introduction of VIX derivatives can help achieve that even during Black Swan events. 1%-5% of the portfolio if held in a volatility related asset class would insure the portfolio against such extreme outlier events. This proportion can be changed based on the asset manager assessment of market performance and can be reduced during phases when the market is performing well or predicted to be stable.

For the Policy Makers: Earlier India VIX used to have derivatives trading but due to the poor public response they were scrapped. They wish to bring to the notice of the policy makers how such an asset class would help insulate the Shareholder Value in Business and overall market against losses and will also continue to ensure liquidity to company even in times of challenging economic conditions .

This provided a fresh perspective and highlighted what was earlier hidden in plain sight. With the fast changing world and adaption to the new normal, the principle of VUCA (Volatility, Uncertainty, Complexity and Ambiguity) is now more pronounced than ever. We as members of the financial community should encourage and partake in such asset classes to make them a part of this new normal.

Thank You

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1st Tech Talk in Data Science and Analytics – Robotic Process Automation – Transforming Insurance Industry

Date: 17th October 2020; Saturday Time: 15:00 - 16:30 IST

Moderator: Mahidhara Davangere, Secretary, Advisory Group of Data Science and Analytics, IAI

Speakers: Subhash Chandra, Country Head: Client Engagement, Blueprism India Pvt. Ltd.

Subhendu Kumar Bal, President IAI

Heerak Basu, Chair, Advisory Group of Data Science and Analytics, IAI

Introduction

The current COVID-19 situation has forced many executives to work remotely on a short notice. In such a scenario, most of the industries were not prepared for an overnight shift to 100% digital operations for a considerable extended period. It is unexpectedly clear that COVID pushed the legacy systems and emphasized the importance of digitalization, where automation plays a pivotal role. **In today's era, increasing efficiency with more accuracy, operational agility, workforce enhancement along with customer experience and satisfaction is possible through Robotic Process Automation (RPA). RPA acts as a catalyst in bridging the gap between digital native companies and legacy organizations.**

About tech talk

To discuss such innovative topics in the industry, IAI started with a series of tech talk webinars. 1st Tech Talk was organized on "Robotic Process Automation (RPA) - transforming insurance industry". **Objective of the webinar is to convey the need, benefit and outcome of Data Science & RPA in today's world.** To commence the session, Heerak Basu introduced the newly elected President, Subhendu Kumar Bal who inaugurated the 1st Tech Talk and gave his best wishes to continue such non-technical topic series. Moderator Mahidhara Davangere introduced the speaker Subhash Chandra, Country Head, Blueprism India Private Limited.

Subhash started session with introducing the digitalization as need of the hour and how organizations with traditional legacy systems are taking initiatives in adopting the new technologies. To adapt this, various legacy systems needs to integrate with new technology systems which has many challenges. RPA plays an important role in dealing with the challenges of legacy systems & its integration.

Adoption of new technology at the right time is the key to success

Subhash suggests that one of the common issues Indian companies face is falling for hype cycle; i.e. adopting a technology as per the preference in the industry over actual need of the business. In order to adopt any technology and more specifically RPA, organization should start with the processes which are not impacting the core business but involves/shares some backend activities of core business. He emphasizes that organization should also know, which processes not to automate. Processes which needs too much human interventions at multiple points and the processes which are not sufficient for 40- 50 % of automation are not recommended for RPA.

He further explains different types of automations.

1. Attended Automation
2. Assisted Automation
3. Autonomous/Unattended Automation

These days, organizations are taking good/sustainable decision of strategic based automation than tactical based automation. Indian market is associated with assisted (RPA 1.0) to unassisted (RPA 2.0), while global market is in autonomous (RPA 3.0) to cognitive (RPA 4.0).

RPA and insurance

While talking on insurance industry updates, Subhash added that 60-70% usage of RPA is already adopted by BFSI vertical. In insurance, RPA becomes the intermediary between front end and back end processes. Transfer and surrender value, premium reconciliation, tax refunds, policy statements, lapses, projections, maturity payouts are only few examples of how RPA has played a fundamental role in digitalization. It has been and will be crucial in all

aspects of insurance framework from underwriting to pricing to policy administration to claims handling bringing a collaborative agile way in the organization.

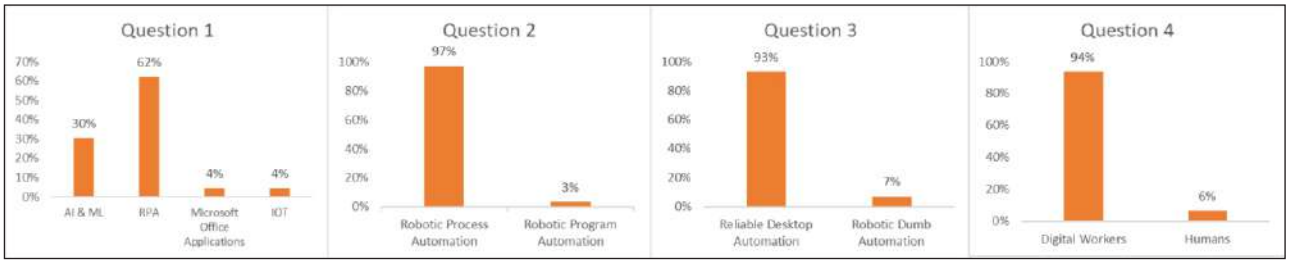
Looking ahead: digital workers

Considering IT governance rules, business should able to design the automation process with minimal configurational efforts. Automation means organizations are brining digital worker in the operations. Digital workers can be once configured are more agile in various aspects. They are autonomous, more secure, non-intrusive, can be enhanced for artificial intelligence and machine learning for decisions and can be easily modified to meet the needs of employees or employer or customers while creating capacity for a human worker for other meaningful tasks.

Poll results

In order to make the webinar more interactive, the organizers also arranged for few online poll questions -

1. Which are the 3 digital transformation technologies?
2. What is RPA?
3. What is RDA?
4. RPA is performed by?



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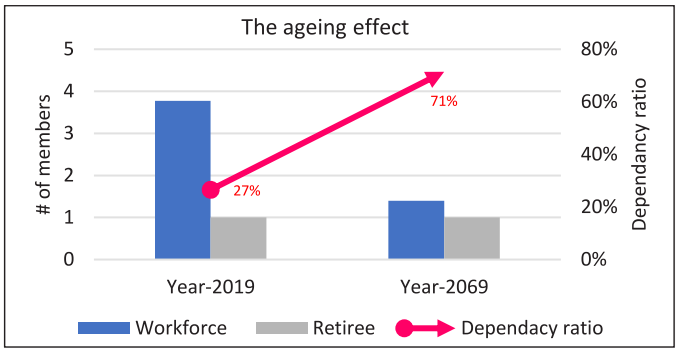
UPCOMING WEBINARS

S.No.	Webinar	Date	CPD
1	3rd Webinar in Risk Management- Assessing Credit Risk: Veracity of Models & Significance of Expert judgement	4 November, 2020	2 hrs CPD In any Area
2	4th Webinar on Micro Insurance- Disaster Risk Financing- A Country Diagnostic tool kit	6 November, 2020	1.5 hrs CPD in any Area
3	6th Webinar on Data Science & Analytics: Data Science, Machine Learning & AI – Actuarial Applications	7 November, 2020	1.5 hrs CPD in any Area
4	3rd Webinar in Banking, Finance & Investments	5 December, 2020	1.5 hrs CPD
5	2nd Tech Talk in Data Science & Analytics	12 December 2020	No CPD
6	2nd & 3rd Webinar in General Insurance	11 & 23 December, 2020	2 hrs CPD each
7	3rd Webinar in Health Care Insurance	18 December, 2020	2 hrs CPD
8	16th CILA	6-7 & 12-13 January, 2021	12 hrs. CPD
9	34th IFS	22-23 & 29–30, January 2021	6 hrs. Professional & 6 hrs. Technical in any Area

Preparing Hong Kong Citizens for Retirement - The MPF Way

Adequacy of retirement savings has been an area of interest due to the challenges posed by prevailing low interest rates, aging and increased life expectancy. It is now becoming more likely that retirees would outlive their savings from personal, occupational and Govt. sponsored schemes.

Hong Kong's Department of Census and Statistics has projected that over age 65 population in Hong Kong will rise to 31% by year 2036 and to 37% in another 30 years - creating a significant gap between active workforce and retired members.



Intuitively, aging impact will be at-least every 3 individuals out of 10 are over age 65. The dependency ratio, number of retirees to active workforce, will surge from 27% to 71%. This gap will significantly increase the burden on the government and taxpayers.

To help aging workforce to save and have enough for their retirements, Hong Kong has created a mandatory pension system following the three pillars framework proposed by World Bank in 1994. The Hong Kong's mandatory pension system opted the Pillar-II approach of the framework.

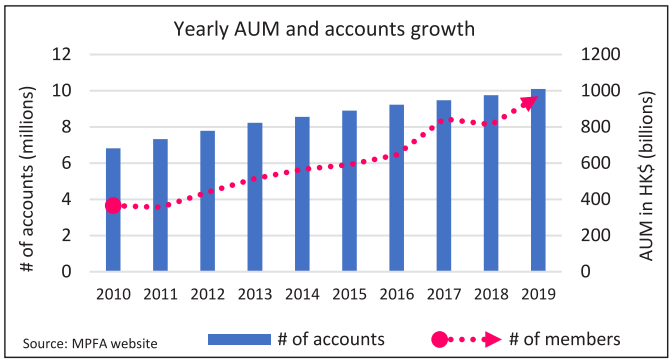
Mandatory Provident Fund Authority

Mandatory Provident Fund Authority (MPFA), a statutory body established in 1998 under Mandatory Provident Fund Schemes Ordinance (MPFSO). MPFA regulates the retirement industry in Hong Kong with an objective to ensure established retirement schemes are managed properly and promote greater certainty and sustainable benefits. Following the enactment of MPFA, the Mandatory Provident Fund (MPF) was implemented in December 2000.

Coverage, Features and Benefits

MPF system mandates all permanent and part time employees between age 18 to 65 must enroll into an MPF scheme after 60 days of continuous employment. The coverage also includes self-employed - any person who receives income from provision of goods & services but not as an employee e.g. Doctors, Lawyers, Sports persons, etc., expats working in Hong Kong for more than 12 months, if not covered by overseas retirement scheme.

As per data from census department of Hong Kong as of Q1 2020, currently 3.72 million people are employed or self-employed, and the MPF system currently covers 76% of the employed population. From the chart below, it is apparent that the acceptance and enrollments are growing over the years.



MPF mandates 5% contribution of employee's relevant income from employer and employee. In the event where employee's relevant income is less than HK$7,100 per month, only employer makes the contributions. There is also a cap of HK$30,000 on relevant income. Of course, both employee and employer enjoy tax benefits on all such contributions made.

Under MPF system members can hold multiple accounts simultaneously and choose to invest in several funds to diversify their investment risks. The benefits are portable and preserved under MPF system to retirement age, age 65 - with some exceptions to early withdraw under special circumstances.

Governance and Compliance

The funds under MPF system are privately managed thus safeguarding the employees' interest and striking a good balance between employee and employer is essential. Therefore, the MPF system is highly regulated and comprehensively monitored. The MPFA appoints Trustees to ensure smooth functioning of the schemes and to ensure members are adequately protected.

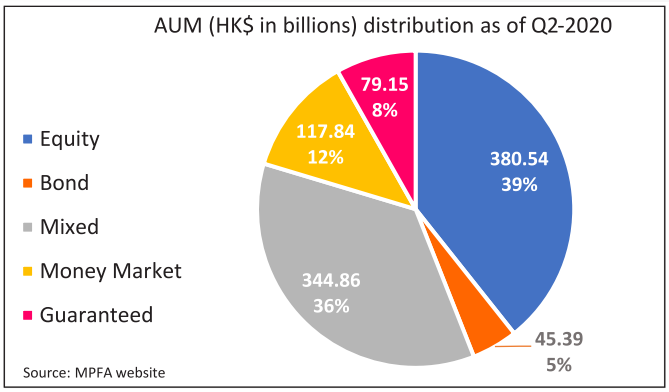
To become an MPF approved trustees, the firms need to satisfy a list of defined stringent criteria, qualitative as well as quantitative. A few measures are - capital adequacy, capability of administering schemes, entity's presence and control in the country, skill, knowledge and qualifications, internal controls standards, etc.

Approved trustees are responsible for appointment of Scheme Administrator, Custodian, Intermediaries and Investment Managers along with ensuring all regulatory compliances, standards and guidelines are fulfilled. There are certain investment guidelines and restrictions placed by the MPF authority to further safeguard members interest. A few investment guidelines include purchase of shares only on recognized stock exchanges, purchase of investment-grade debt securities, use of derivatives for hedging purpose only, a minimum 30% allocation in local market, avoid the risk of over concentration, etc.

Basket of investment options

A variety of investment choices are available to the MPF scheme members starting from low risk to high risk options. The fund choices include money market funds, fixed income securities, guaranteed return funds, equity funds and mixed funds. As required by the law, however, each fund must provide a minimum investment return offered by either a short-term bank deposits or short-term bonds denominated in Hong Kong currency. Out of these investment options, guaranteed funds are popular amongst the risk averse members.

In this low interest rate environment, there are firms which offer guaranteed investment returns which are well above required by the law. This category of fund attracts investments from members who like to have flavor of upside potential of the market along with downside protection and are willing to pay premium for downside risk protection. Over last 10 years, guaranteed funds' AUM has grown by approx. 9.3% on CAGR basis - which is due to growing popularity as it offers steady returns in the VUCA world.Preparing



Guaranteed return funds are typically offered by insurance companies and given nature of risks faced by such funds the regulatory framework is more stringent and funds are regulated by Insurance Authority of Hong Kong along with MPF authority. To meet the guaranteed return promised to members, the Insurance Authority mandates insurer to keep enough reserve and assess their solvency position periodically.

Opportunity areas for MPF and potential enhancements

While there is no perfect formula to create a best in class pension system, MPF system under Pillar-II has covered big chunk of workforce and has been providing suitable investment options but the MPF system is not immune to the criticisms. The system has Potential opportunity areas and those need to be addressed by the regulators and the government.

Although old age savings are required by all citizens of the country though, MPF system has been designed to cover only the employed and self-employed individuals but exempts daily wage earnings, e.g. domestic helpers, labors, hawkers, etc. - which constitutes a big chunk of the population. There is an urgent need to expand the coverage to encompass a larger group and be more inclusive - given the rise of over age 65 population as projected by the census department.

The leakage of benefits is one of the greatest problems of this design which the regulators need to address. The leakage is from members exercising options available to early withdraw funds. Secondly, option available to the employers to offset MPF accrued benefit derived from employer's portion of the contribution with severance payments.

The current contribution rate is low, and the savings from this may not serve the purpose. It may be ideal to have several contribution rates linked to individual

earnings level or years of service and incentivize members more for the extra contributions they make.

The general market sentiment is the fee charged under MPF schemes are higher. Average fund expense ratio (FER) as of Q2 2020 is 1.45%. Higher FER erodes accumulation and hence reduces the retirement corpus. To address this issue, the regulator is working with trustees and encouraging members to merge their multiple schemes into one and gain efficiency. Adoption of new technologies and automating administration, operation services may help reduce the cost incurred by the service provider and the benefit of this can be reflected by reducing FER.

Conclusion

One can draw a good parallel between Hong Kong's MPF system and a hybrid model of EPF and NPS in India. EPF mandates contributions, managed by EPFO and offers guaranteed returns while NPS encourages contributions from individuals, assets are managed by private investment managers and returns are market linked. A good blend of these two systems, could potentially be Hong Kong's MPF system.

Hong Kong's MPF system is well regulated and has stringent trustee and investment manager selection criteria in place to adequately protect members long-term retirement goals and interests. The cherry on the top is members have a spectrum of investment options available which they can opt based on their individual circumstances, demographics and risk appetites.

Overall member coverage amongst the employed population is adequate. Extending coverage to larger population, further incentivizing individuals by tax benefits, digitizing the customer experiences and use of emerging technologies to reduce frictions may facilitate the MPF system to embark to enhance the lives of members and secure their retirements.

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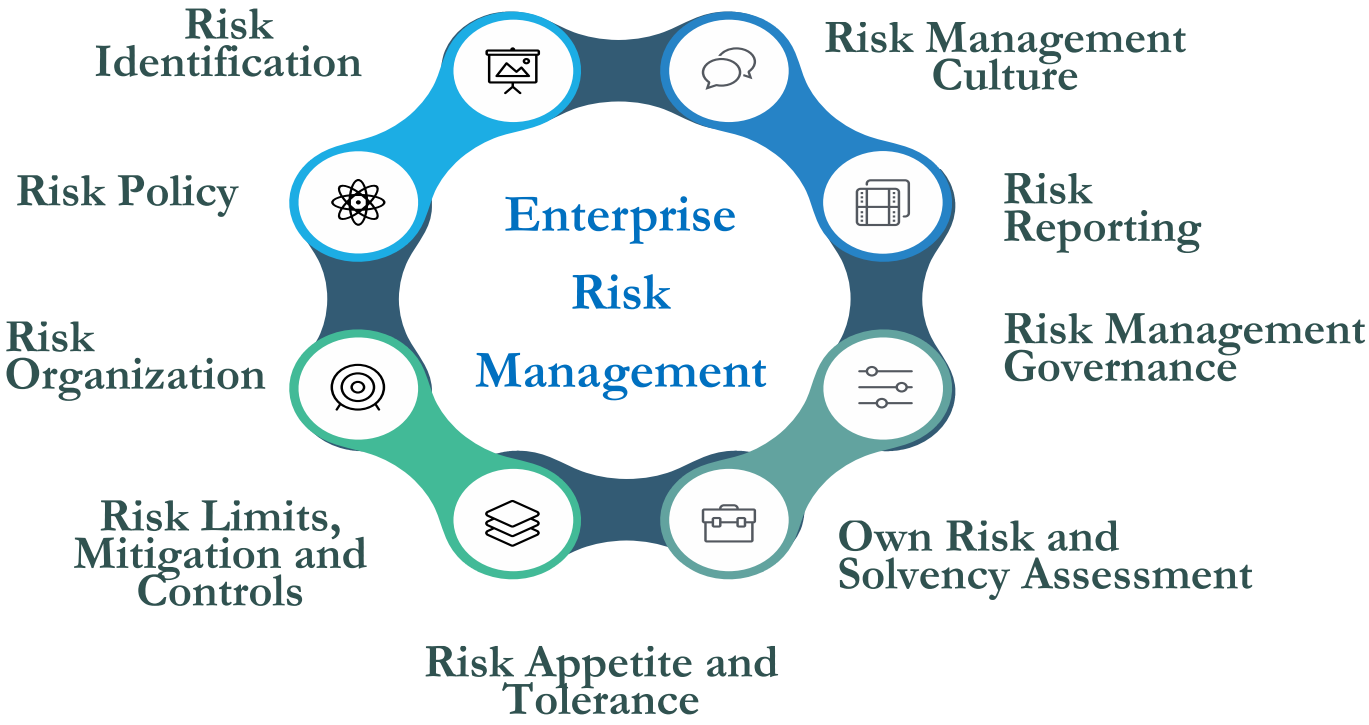

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