REPORT OF THE EXPERT COMMITTEE ON LONGEVITY FINANCE
12 APRIL 2022

IFSCA

Contents

ABBREVIATIONS AND ACRONYMS

Sr.no.	Abbreviations	Definition
1	ACWI	MSCI All Country World index
2	ADB	Asian Development Bank
3	AI	Artificial intelligence
4	APY	Atal Pension Yojana
5	AUM	Assets Under Management
6	AYUSH	Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy
7	CRISIL	Credit Rating Information Services of India Limited
8	CSR	Corporate Social Responsibility
9	DIFC	Dubai International Financial Centre
10	EEE	Exempt – Exempt – Exempt
11	EET	Exempt – Exempt – Taxable
12	EPF	Employees' Provident Fund
13	ESI	Employees’ State Insurance
14	ETFs	Exchange-Traded Funds
15	FinTech	Financial Technology
16	FRBs	Foreign Reinsurance Branches
17	GDP	Gross Domestic Product
18	GIC Re	General Insurance Corporation of India Limited
19	GIFT	Gujarat International Finance Tec-City

Sr.no.	Abbreviations	Definition
20	GST	Goods and Services Tax
21	HNWI	High-Net-Worth Individuals
22	HSBC	The Hongkong and Shanghai Banking Corporation Limited
23	IBU	IFSC Banking Unit
24	IFSC	International Financial Services Centre
25	IFSCA	International Financial Services Centres Authority
26	IIM	The Indian Institute of Management
27	IIO	IFSC Insurance Office
28	IIT	The Indian Institutes of Technology
29	InvITs	Infrastructure Investment Trusts
30	IPOs	Initial public offerings
31	IRDAI	Insurance Regulatory and Development Authority of India
32	IT	Information Technology
33	KYC	Know Your Customer
34	LASI	Longitudinal Ageing Study in India
35	LHLGEX	Hartford Longevity Economy Index
36	LIC	Life Insurance Corporation of India
37	LRS	Liberalised Remittance Scheme
38	LTD	Loan-to-Deposit
39	MFs	Mutual Funds

Sr.no.	Abbreviations	Definition
40	MSMEs	Micro, Small and Medium Enterprises
41	MTI	Medical Tourism Index
42	MVT	Medical Value Travel
43	NABARD	National Bank for Agriculture & Rural Development
44	NASDAQ	National Association of Securities Dealers Automated Quotations
45	NOF	Net Owned Funds
46	NPS	National Pension System
47	NPS-Traders	National Pension Scheme for the Traders and Self-Employed Persons
48	NRIs	Non-Resident Indians
49	OECD	The Organisation for Economic Co-operation and Development
50	OTC	Over the counter
51	PF	Provident Fund
52	PFRDA	Pension Fund Regulatory and Development Authority
53	PIOs	Persons of Indian Origin
54	PMJDY	Pradhan Mantri Jan Dhan Yojana
55	PMJJBY	Pradhan Mantri Jeevan Jyoti Bima Yojana
56	PMSBY	Pradhan Mantri Suraksha Bima Yojana
57	PM-SYM	Pradhan Mantri Shram Yogi Maan-dhan Yojna
58	PoP	Point of Presence

Sr.no.	Abbreviations	Definition
59	PPF	Public Provident Fund
60	PSL	Priority Sector Lending
61	R&D	Research and Development
62	RBI	Reserve Bank of India
63	REIT	Real Estate Investment Trust
64	SAAAME	South America, Asia, Africa, Middle East
65	SEBI	Securities and Exchange Board of India
66	SEZ	Special Economic Zone
67	SIB	Social Impact Bond
68	SMEs	Small and Medium-sized Enterprises
69	SPCs	Special Purpose Companies
70	SWF	Sovereign Wealth Fund
71	SWOT	Strengths, Weaknesses, Opportunities, and Threats
72	ToR	Terms of Reference
73	UHNWI	Ultra-High-Net-Worth Individuals
74	UK	United Kingdom
75	UN	United Nations
76	UNDP	United Nations Development Programme
77	US or USA	United States of America
78	VC	Venture Capital

FOREWORD

The International Financial Services Centre (IFSC) has been established at Gujarat International Finance Tec-City (GIFT City) to bring financial services to India that are currently provided outside India. Till now, the focus has been to attract overseas financial institutions and the overseas branches or subsidiaries of Indian financial institutions that are largely engaged in India trade The International Financial Services Centre Authority (IFSCA) has taken various steps to do so, and the result is quite evident. There are a number of banks, asset managers, capital markets intermediaries and insurance companies who have set up their presence in the IFSC.

Now it is time for the IFSC to look beyond the India trade and lay out a grand vision. It should aim higher and set its vision to be the financial services provider to the world if it has to leave a mark on the global financial services map. Adopting a blue ocean strategy should be the way forward than trying to nibble some market share here and there from the existing markets.

One area where the IFSC could take a lead is **'longevity'**, a relatively unexplored way of looking at business, targeting untapped customers and providing customised services.

We are happy and delighted to see that the IFSCA is framing this vision under the dynamic leadership of its Chairperson Mr Injeti Srinivas.

Global estimates suggest that the population of the silver generation, which is ever expanding and holds spending power, is over one billion. Development in medicinal science and technology is increasing human lifespan. This offers unique opportunities to organisations that are ready to tap them.

The IFSCA has set sights to develop a Longevity Finance Hub in the GIFT IFSC. As a first step in achieving that vision, it has constituted the Committee to recommend a road map for achieving the same. The members of this Committee are leaders in their own right and come from a diverse set of organisations that includes banking, insurance, wealth management, FinTech, legal, tax and management consultancy. The Committee held extensive consultations with various stakeholders. Working groups of the Committee were formed to focus on specific areas such as banking, capital markets, insurance and pension. The Committee met three times, and the working groups formed convened meetings multiple times for deliberating on the important aspects and for completing the report.

We are grateful to Committee members, who despite being busy professionals, spent so much of their time to prepare this report.

The report analyses the concept of longevity, India' opportunities and challenges, longevity products and the eco system. It also discusses the key enablers to develop a Longevity Finance Hub in the GIFT IFSC.

We sincerely hope that the discussion in the report contributes to achieving our Hon'ble Prime Minister's grand vision to make India a USD 5 trillion economy and global powerhouse by 2024–25.

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Note:Members have served on this Committee ad personam. Comments, views, analysis and/or examination herein are neither attributable to, nor are the recommendations binding upon, the organisations to which the Members belong.

Dated: 12-04-2022

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The Committee would like to thank Mr. Devi Shetty, Founder, Narayana Health for providing great insights into the areas of medical science and tourism for the longevity industry.

The Committee would like to sincerely thank Mr. Dipesh Shah, Executive Director (Development), IFSCA for leading the initiatives and streamlining actions on Longevity Finance and guiding the committee throughout the deliberation and recommendation process. Mr. Shah ensured full support of IFSCA to the committee.

The Committee would like to thank Mr. Sayed Zeeshan Ali, Deputy General Manager, IFSCA for providing extensive support and robust coordination in the effective functioning of the committee. Further, the committee would like to thank Mr. Kartikey Kumar, Assistant Manager, IFSCA for timely organising meetings and maintaining minutes of the committee.

The Committee also expresses its appreciation to Mr. Suresh Swamy, Partner, Price Waterhouse & Co LLP and his team comprising Mr. Vandit Shah, Mr. Jay Kothari, Ms. Nivitha N., Mr. Prasad Nayak and Mr. Rishi Lahoti for actively supporting the committee in preparation of this report. The Committee would also like to thank Ms. Kaushiki Agarwal from Khaitan & Company for her contribution and participation.

1. EXECUTIVE SUMMARY

1. Introduction to Longevity

1.1 'Longevity' has no set definition and means different things for different people. To some, it means a long life, while for others, the term is more philosophical.

1.2 It is an obvious and undeniable fact that populations around the world are aging. Over a billion people around the world are retired, and retirees are living decades longer than in the past generations.

1.3 Today, older people account for one-fifth of the population in 17 countries. It is projected that by the year 2100, older people will account for one-fifth of the total population in 155 countries, comprising 61% of the world population.

1.4 The longer a person lives, the more resources they will consume. Longevity is directly proportional to resource requirement.

Longevity science and technology

1.5 Science and technology will play an important role in the Longevity industry. Longevity science aims to increase healthspan so that people can remain highly functional as they age. Longevity treatments focus on prevention rather than cure.

1.6 Doctors trained in Longevity Medicine would use artificial intelligence (AI) to assess the risk of disease and help people avoid serious illnesses. Medicines will help people track biological aging, repair damages and improve their health.

1.7 Recent advances in AI and aging research are expected to disrupt traditional models used by life insurance companies. In the near future life insurance companies will use AI-based aging clocks as part of the underwriting process. These advances will help insurance companies make better decisions regarding risk assessment and premiums and help customers make informed decisions.

1.8 Technologically progressive economies will have the potential and capacity to revolutionise the entire value chain. The synergy between innovative AI and wealth management will lead to the creation of new financial institutions optimised for people of all ages who are preparing to live extra-long lives.

2. Longevity from Indian perspective

2.1 In the Indian context, senior citizens (60 years and above) account for approximately 8.2% of the population.

2.2 Even though India's older population is lesser compared to the world population, India is ageing fast and is expected to be the home of 20% of the world's old age population by 2050.

2.3 Senior citizens find it difficult to obtain protection under any formal health plans or retirement income schemes. The Government of India has taken measures to address this issue, but it largely focuses on the bottom of the pyramid. There is a scope to do more across the spectrum.

2.4 Progressive investment banks, pension funds and insurance companies are already developing new business models to cater to the Longevity industry. Financial companies are also using advanced AI to improve the quality of analytics in the longevity sector.

2.5 The increasing relevance of longevity to finance is being recognised among the international financial community.

2.6 The Indian financial industry at large is most certain to display growth because of its significant market size, benefits for investors and generation of huge profits by bringing the most advanced longevity technologies and delivering more health to humanity.

3. Longevity Finance and Longevity Finance Hub

3.1 The financial industry is pivotal to the Longevity industry. Contrary to the terminology, Longevity Finance Hubs are not limited to just the financial services industry but also include the preventive medicine industry.

There will be five major categories of industries in Longevity Finance (i.e. banks, asset management firms, insurance, reinsurance companies and pension funds).

Financial institutions that adjust their business models are likely to outpace their competitors and grow swiftly.

3.2 It is expected that various Longevity Finance Hubs will emerge globally in the next few years. Longevity Finance Hubs will act as a central point offering all sorts of financial products and services in the Longevity industry,

4. GIFT-IFSC as a Global Longevity Hub (GLH)

4.1 IFSCA should tap this opportunity and encourage setting up of Global Longevity Hub focussing on financial and allied services. It can set up a new global benchmark by providing an environment that fosters innovation in financial products and services for development of GLH.

4.2 The GLH at the GIFT IFSC would enable integrating financial services and health by adapting multi-dimensional elements such as innovative financial products and services, FinTech, healthcare, geroscience, biotechnology, pharma, precision medicine, and AI, among others.

4.3 Leading corporates and Financial institutions such as Banks, Pension Funds, Asset Management Funds, Insurance Companies, among others should be encouraged to come together and jointly form a hub that provides institutional arrangement for the development of GLH in GIFT IFSC. It will be the responsibility of the Hub to focus on developing various longevity solutions. They will coordinate with all the potential stakeholders including the regulators.

4.4 An Industry lead and supported organisation can be created to help aid the development of the ecosystem, while IFSCA can work on the regulatory framework. This organisation can be referred as Global Longevity Hub (‘GLH'). Like-minded Organizations with interest or presence in IFSC at GIFT City will come together as founding members of GLH with support from IFSCA and the government of India. It will be an independent organization with its own staff and advisory board.

4.5 GLH should achieve two purposes:

(a) To establish IFSCA and GIFT City as the global longevity Hub and innovation center, and

(b) To nurture the growth of Longevity industry by building collaboration with Industry, Institutions and Regulators.

Initiatives/ Recommendation for creating GLH

4.6 Towards the achievement of its first purpose, initiatives of the GLH should include holding a global convening platform for the industry players. The platform should become the place where ideas, challenges and opportunities are discovered and through discussion, developed into opportunities. Through sponsorship this can be a self-funding initiative and a great brand building program. This would help in making GIFT IFSC the Davos of the longevity industry.

4.7 To nurture the growth of the industry it could undertake the following:

Skill development: GLH should work with industry experts and create a certification program for professionals and students who want to acquire understanding and domain knowledge about the Longevity industry. As the industry grows and evolves, it will require trained manpower and this paid certification program will raise awareness and generate the requisite talent pool.

Financial Literacy for Women: GLH should work with premier education institutions like IIMs to create a financial literacy program for women. Global organizations can borrow the program at a cost and deliver it globally as part of their CSR program.

Silver entrepreneurship: GLH should create a start-up Eco system for the silver generation, similar to the way it has been done with alpha generation. Cohorts focusing on the silver entrepreneurs be created by IFSCA and thereby providing great mentor support in identifying the silver entrepreneurs.

Sandboxing of Product Ideas and Tech Solutions: (convergence of Financial, Wealth, Med, and Health): Offer a sand-boxing environment which GLH can create in partnership with IFSCA and industry. It can focus Financial Product Innovation and Technology solution, especially in the area of convergence of financial, wealth, Med and Health technologies.

Life Para Medical Centre: It is suggested that GLH may integrate financial services and health management. It may offer on-premises professional medical experiences, alongside protection, wealth and legacy planning. The Life Para-medical Centre would allow customers to complete pre-insurance medical examinations and participate in other health and wellness management programs.

4.8 In order to develop Longevity financial products, it is suggested that GLH, in collaboration with IFSCA, should encourage all its member entities to develop Longevity products and acknowledge the implementation of the same by the entities under a single license. IFSCA should also provide all regulatory and other support required for institutions to develop Longevity products under a sandbox or commercial framework.

4.9 Various regulatory recommendations on insurance, re-insurance, pension fund, medical tourism, banking, capital markets and asset and wealth management are covered in the report.

5 Insurance

5.1 To create an enabling regulatory environment that is conducive to the provision of financial services, it is suggested that the IFSCA should permit financial institutions to distribute numerous financial products and services under a single licence or certificate of registration.

5.2 IFSCA may also consider a single composite insurance licence for the manufacturers of financial products and services. The IFSCA may evaluate having appropriate barriers to prevent contagion risk for entities engaged in more than one line of insurance business.

5.3 IFSCA may also consider allowing financial service providers to also engage in other lines of business that are allied to their core businesses. For e.g. Allowing insurers to hold subsidiaries operating in FinTech/insureTech will help in providing a comprehensive suite of services to customers and will enhance the value proposition.

5.4 The current regulatory regime neither prohibits nor specifically allows life insurers to undertake wellness and preventive care initiatives. Insurers may also be allowed to offer certain other value-added services to their customers based on their life stage requirements such as holistic wellness programs, legacy creation, retirement planning and document vaults in addition to extending wellness and preventive care initiatives.

5.5 All wellness and preventive care initiatives as well as value-added service offers should be filed as a single document for approval, rather than filing the same under each product separately. Once approved by the IFSCA, an insurer may offer these services along with its products based on their relevance.

5.6 The IFSCA may interact with the domestic regulator to exempt IFSC Insurance Offices (IIOs) of the Indian Insurance companies from restrictions on overseas investment to enable them to invest in long-term bond market and a long-term derivatives market that are indexed to the longevity of the population, available in developed markets.

5.7 Insurers should be allowed to offer indemnity-based individual health products, with a minimum tenure of three years. Furthermore, since insurers are risk managers for the medium to long term, they are better aligned to offer health products with a slightly longer tenure.

5.8 IFSCA may consider permitting insurance companies in IFSC to offer a health savings product on the unit-linked platform.

5.9 The IFSCA could consider a set of comprehensive regulations for policies issued by Insurance companies in IFSC for life settlement transactions.

5.10 Insurers in IFSCA should also be permitted to offer personal accident cover, baggage loss, documents loss cover and travel health insurance anywhere in the world for Non-Resident Indians (NRIs) or Persons of Indian Origin (PIOs).

Furthermore, they should be permitted to issue homeowner policies from the IFSC for covering property owned by NRIs or PIOs in India and abroad.

6 Pension and annuities

6.1 India's pension policy challenges differ from those of other Asian countries. India is in the process of restructuring its pension system, especially to increase the coverage of formal pension systems.

6.2 Insurers can play an active role in reverse mortgage, primarily owing to their better understanding of mortality and longevity trends. Reverse mortgage is a long-term product, and insurers, being in the business of offering long-term products, are in a better position to estimate and manage long-term interest rate risks. Banks and insurance companies could market the reverse mortgage product together. The combined solution of products, if designed properly and offered in an empathetic manner, would help build brand equity for both the lender as well as the insurer in this niche segment, while offering financial security to the elderly and thereby developing a niche longevity finance product

6.3 There should be no cap on Point of Presence fee for policies issued by IFSC insurance entities. This would help in attracting accomplished agents and setting up a robust distribution network.

7 Medical tourism

7.1 Allowing Indian insurance companies to offer mediclaim policies out of the IFSC for treatment in India, especially to residents of Asian, African and Middle East countries who look at India as a popular destination for medical tourism, will further help boost medical tourism in India.

7.2 IFSC entities offering personal accident cover, travel cover and health insurance to senior foreign nationals or senior NRIs travelling to India for treatment will help aid medical tourism.

8 Banking

8.1 Banks should design digital products or services such as the AgeTech Banking platform, Robo-advisor and insurance against online frauds, which would help the elderly overcome the problems of digital banking.

8.2 Banks can help people in creating a corpus for their retirement. The current set of products such as Public Provident Fund (PPF), Provident Fund (PF) and pension do not effectively cater to all the needs of individuals. New or novel products should be encouraged for development in GIFT IFSC.

8.3 IFSC Banking Units (IBUs) should be enabled to provide retirement solutions and all longevity-related services to Indian residents as well as non-residents. Considering that IBUs would be allowed to offer longevity solutions to Indian residents, the yearly Liberalised Remittance Scheme (LRS) limit of USD 250,000 should be doubled. The additional limit of USD 250,000 should be allowed to be invested in retirement products offered by IBUs.

9 Capital markets

9.1 Longevity bonds should be issued on IFSC stock exchanges. Global as well as Indian pension funds can hedge their risk by issuing their longevity bonds on the IFSC exchanges.

9.2 The IFSCA should also focus on the establishment of a specialised stock exchange for longevity start-ups.

9.3 The IFSCA should develop a regulatory framework to facilitate listing by foreign and Indian companies focusing on longevity in the IFSC.

10 Asset and wealth management

10.1 Asset managers could consider introducing long-short hedge or hybrid hedge funds focused specifically on the Longevity industry or companies.

10.2 If a framework is established for low-cost incorporation, easy setup and single window clearance of pension and longevity equity funds, it will spark global interest and capital allocations to the IFSC.

10.3 Setting up data centres and attracting global data science expertise to the GIFT-IFSC should be encouraged. Data centres can monetise through the listing of their Real Estate Investment Trusts (REITs)/ Infrastructure Investment Trusts (InvITs) on the IFSC stock exchange.

10.4 Asset monetisation for community houses, condo houses and life science parks must be encouraged from the IFSC. This will tap institutional investments and long-term stable capital into mature assets.

11 Peripheral ecosystem for Longevity Finance

11.1 Avenues for integrating longevity education with existing streams of education must be explored.

11.2 The IFSCA can host or co-host webinars, seminars, competitions and sponsor awards for the Longevity Finance industry. They can also publish literature for educational purposes.

11.3 The IFSCA should collaborate with educational institutions to hold courses on longevity and various related topics.

11.4 The IFSCA should endeavour to offer students internships in various departments depending on the relevant experience and area of interest and also connect students to various organisations where longevity initiatives are being undertaken.

Workplaces and professionals

11.5 Professional organisations can assist with spreading awareness of longevity in the society in general.

11.6 The IFSCA can consider the creation and curation of multiple financial literacy and longevity awareness licensed programs that are created under the mentorship of experienced longevity professionals. Such programs can thereafter be licensed to various organisations that can disseminate them as part of their Corporate Social Responsibility (CSR) initiatives. Similarly, they can be licensed to NFPOs that can implement such programs in their normal course of activities.

Technology, bio-tech, life sciences and longevity

11.7 Technology should be integrated to ensure that there are no hurdles for the beneficiaries of longevity in accessing the benefits and measures being created.

11.8 The IFSCA should tie up with organisations that are involved with biotech, life sciences, geroscience, age analytics, etc. to create awareness programs and promote these sciences.

2. INTRODUCTION TO LONGEVITY

न कंचित् शाश्वतम्

(Nothing is permanent)

2.1 THE CONCEPT OF LONGEVITY

The term 'Longevity' has no set definition and means different things for different people. To some it means long life while for others the term touches the philosophical chord. Martin Luther King, Jr. has famously said "The quality, not the longevity, of one's life is what is important". Some think about science and technology when they think about longevity.

We define and use longevity not only as the length of one's life but as a holistic term that encompasses, among others, the entire ecosystem around longevity such as life-sciences, biotechnology, medicine, advancement in health technology, robotics and artificial intelligence, financial services, fintech, agetech, capacity and skill development.

Populations around the world are aging. **Over a billion people around the world are retired, and retirees are living decades longer than in past generations**. This demographic shift will impact national economies and healthcare systems and have enormous and multiplicative effects on society. We have an opportunity to transform the deficit-model of aging into the asset-model of healthy longevity. The asset model of healthy longevity is a multi-trillion-dollar business opportunity.

Before we delve into the trends and information in respect of longevity, it is important to provide some context as to why longevity is an important subject matter to consider. At the individual level, it is apparent that the primary concern would be the requirement of resources financial, physical, emotional and psychological alike. A casual conversation with an elderly person usually starts with their physical wellbeing. Every individual wishes to be physically fit, enough to at least perform their daily chores without being dependent on others. The adage 'Health is Wealth' resonates with the elderly the most. Staying fit and fine becomes a primary goal at this phase of their life. Generally, there is a realisation that they could have led a much healthier life when they were young. Aging also starts to impact their emotional and psychological wellbeing. They are generally worried about the legacy that they will leave behind. They tend to become more conservative in their approach. Their dependency on near and dear ones grows exponentially. They want constant re-assurance that they are doing the right things the right way. On the financial front, they fear that the financial resources at their disposal may not last their lifetime. Inflation eats into their retirement savings. Real interest rates on bank deposits are increasingly turning negative. As they age, their ability to earn their livelihood through exercise of labour as well as ability to maintain their lifestyle plummets.

Longevity is directly proportional to the need for increased resources. The longer a person lives, the more resources they will consume. They will need physical and emotional support for a longer period. The financial support will continue to rise.

Longevity will also lead to a greater amount of wealth and resources being generated. The more the needs of people, the greater will be the opportunity of wealth creation. Several new businesses and services will be structured to cater to these needs.

2.2 INTRODUCTION TO LONGEVITY FINANCE

The finance industry is pivotal to the Longevity industry because global finance has reached a crossroads where it must decide how to approach the issue of a global aging population - as either a threat, or as The Next Big Thing and a Multi-Trillion Dollar opportunity.

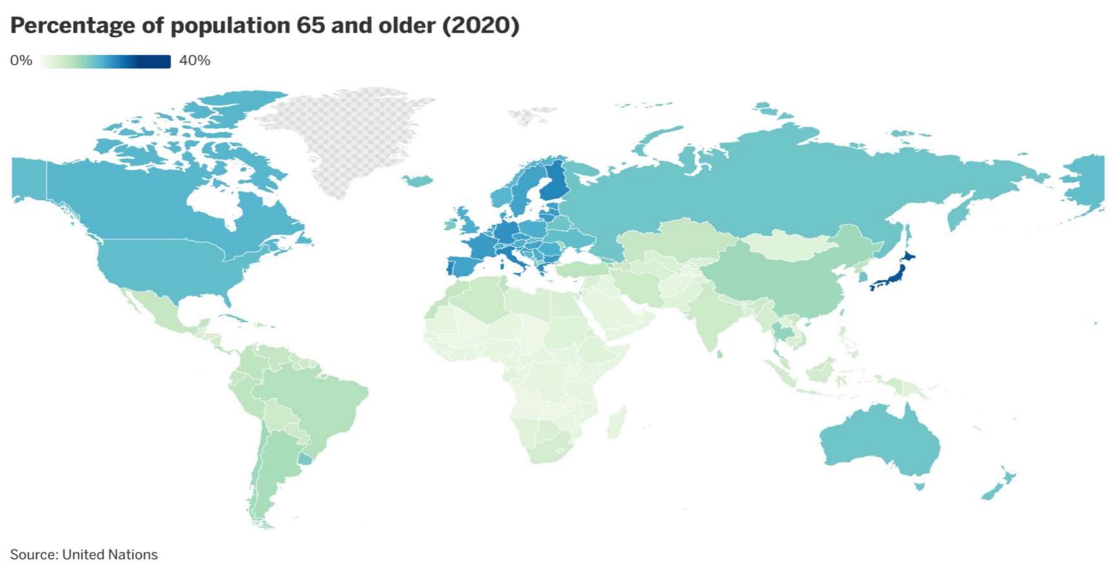
Novel financial systems which are relevant and adjusted to increasing healthy life expectancy including the agetech-Longevity bank, the Longevity investment index and hedge fund, and a specialized Longevity stock exchange will together provide multiple types of Longevity-associated derivatives. This will spawn a whole new industry, the capitalisation of which could exceed anything ever conceived of by financial markets.

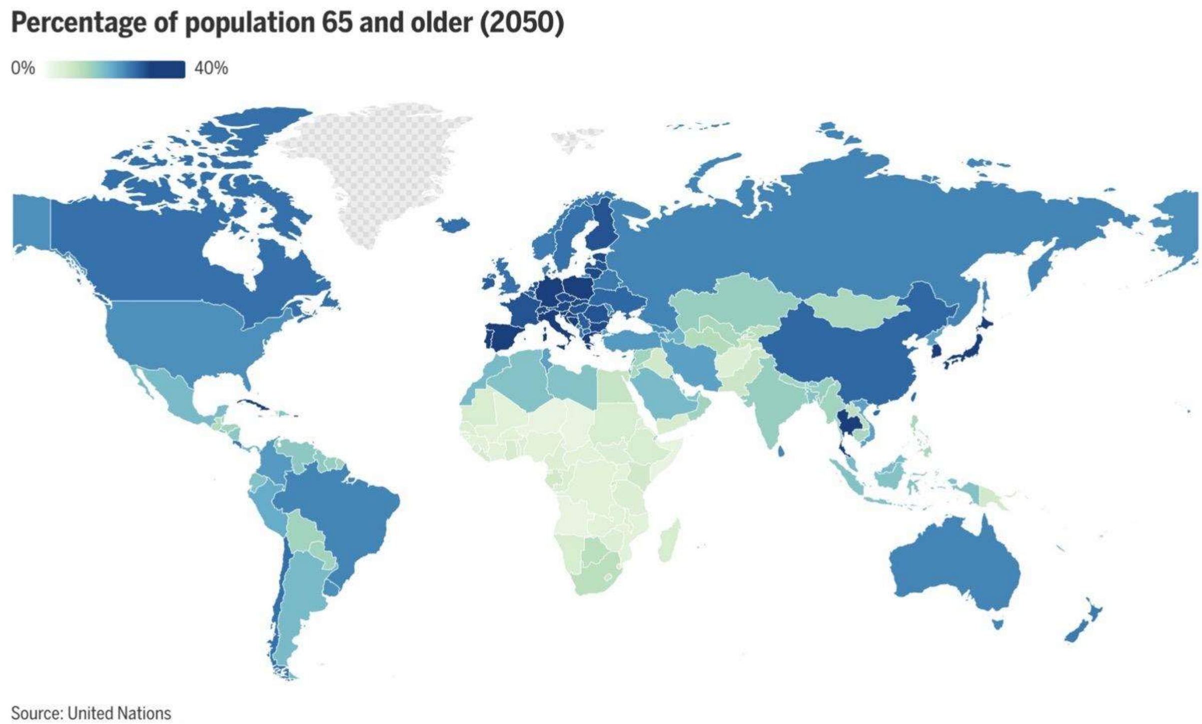
The increasing relevance of Longevity to finance has already been well recognized among the international financial community. Each year an increasing number of forums and conferences are held on the topic. The biggest investment and private wealth banks are issuing analytical reports for their clients on this topic and beginning to structure new financial products. We have discussed opportunities in Longevity Finance in the later part of the report.

2.3 TRENDS IN LONGEVITY

1. **Global and regional demographic trends**

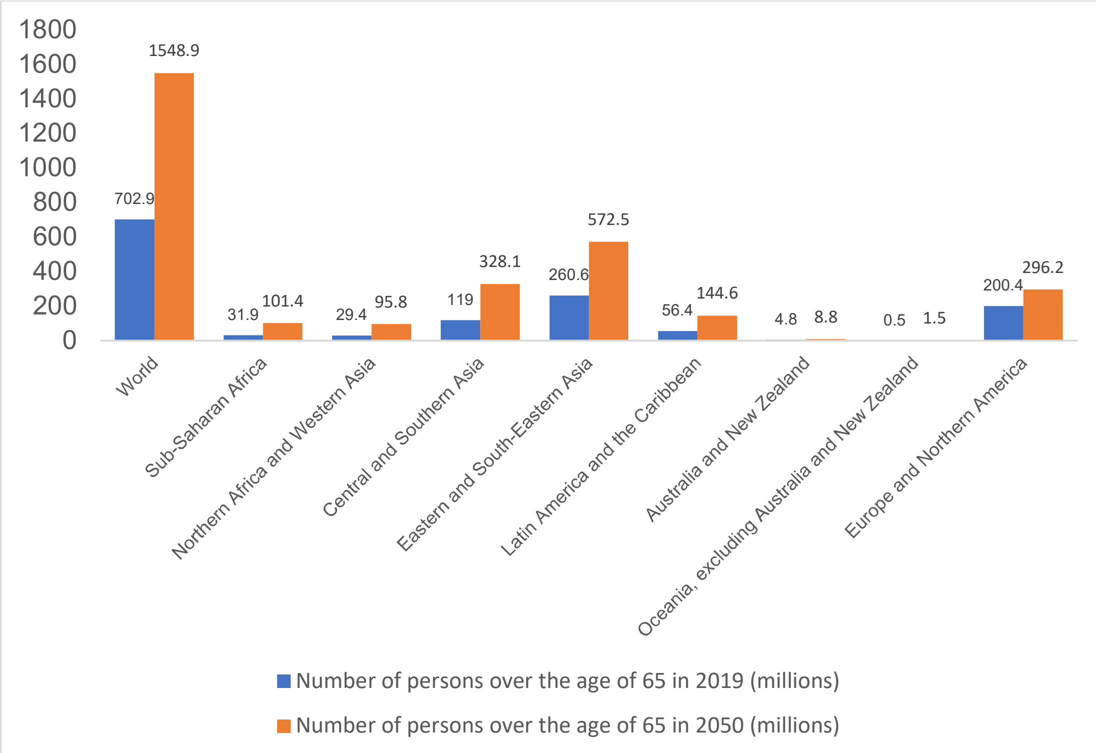
All societies worldwide are experiencing a longevity transformation. Some countries with young populations are at an early stage, while others with older populations have already made significant changes. **As per the World Population Prospects 2019 (United Nations, 2019), one out of every six people in the world will be over the age of 65 years by 2050**.





Today, older people account for one-fifth of the population in 17 countries. The United Nations Department of Economic and Social Affairs Population Division projects that by 2100, older people will account for one-fifth of the total population in 155 countries, comprising 61% of the world population[1]. Today, Eastern and South-Eastern Asia have the largest number of older people (260m), while Europe and Northern America have 200m. The figure below shows the number of people by region over the age of 65 years in 2019 and expected estimates for 2050[2].

[1] World population ageing 2019 – Highlights
Link: https://www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeing2019-Highlights.pdf
[2] Source: United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019



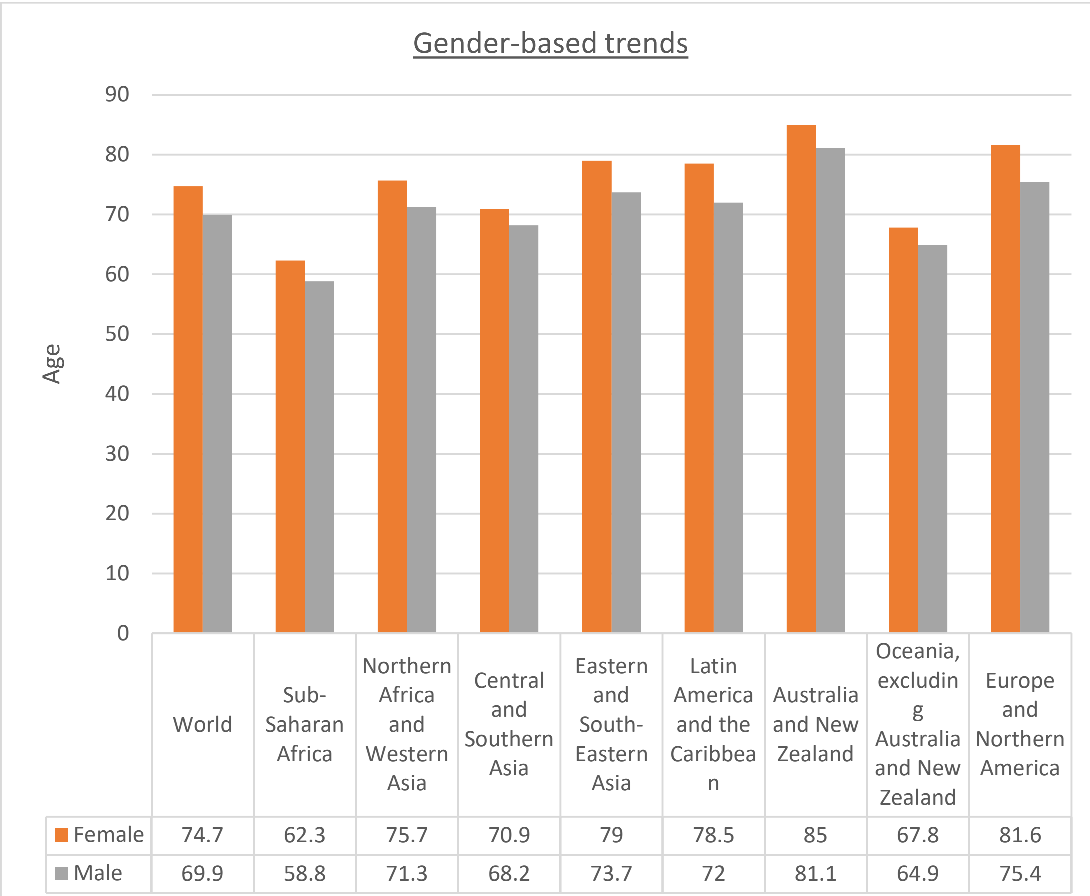
Life expectancy has continued to rise at a significant rate over the past few decades globally. The increase in Asia has been particularly notable, where life expectancy rose by 26 years from the year 1950 to 2010. As per the World Population Ageing, 2017 Report by the United States, there are approximately one billion people in the silver generation (a global cohort of individuals aged 60 years and above).

2. **Gender-based trends**

It is observed that women tend to live longer than men. Women's life expectancy at birth exceeded that of men by 4.8 years in 2015–2020 at the global level. The female advantage in average longevity was the largest in Latin America and the Caribbean (6.5 years), Europe and Northern America (6.1 years), and Eastern and South-Eastern Asia (5.3 years).

Projections indicate that women will comprise 54% of the global population aged above 65 years in 2050. The proportion of women among the total population aged over 80 years is projected to slightly decline to 59% in 2050 from 61% in 2019.

Life expectancy at birth (Gender wise)[3]



	World	Sub-Saharan Africa	Northern Africa and Western Asia	Central and Southern Asia	Eastern and South-Eastern Asia	Latin America and the Caribbean	Australia and New Zealand	Oceania, excluding Australia and New Zealand	Europe and Northern America
Female	74.7	62.3	75.7	70.9	79	78.5	85	67.8	81.6
Male	69.9	58.8	71.3	68.2	73.7	72	81.1	64.9	75.4

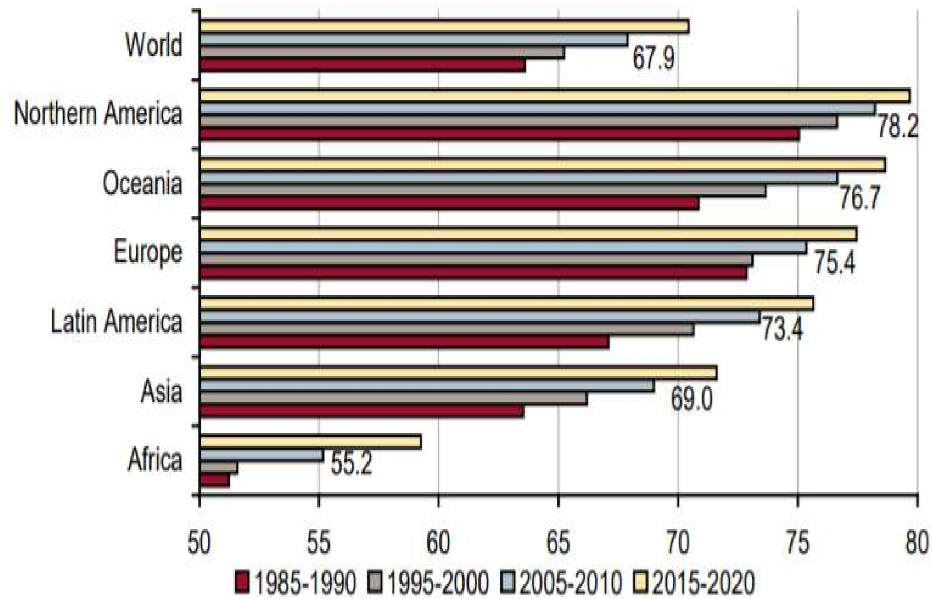
3. **Life expectancy at birth**

According to United Nations estimates, average life expectancy at birth increased from 63.6 years (1985–1990) to 67.9 years (2005–2010) globally, while the corresponding increase was 63.5 years to 69 years in Asia.

[3] Source: United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019

Table 1: Life Expectancy at Birth

Years, current numbers to the right of the bars

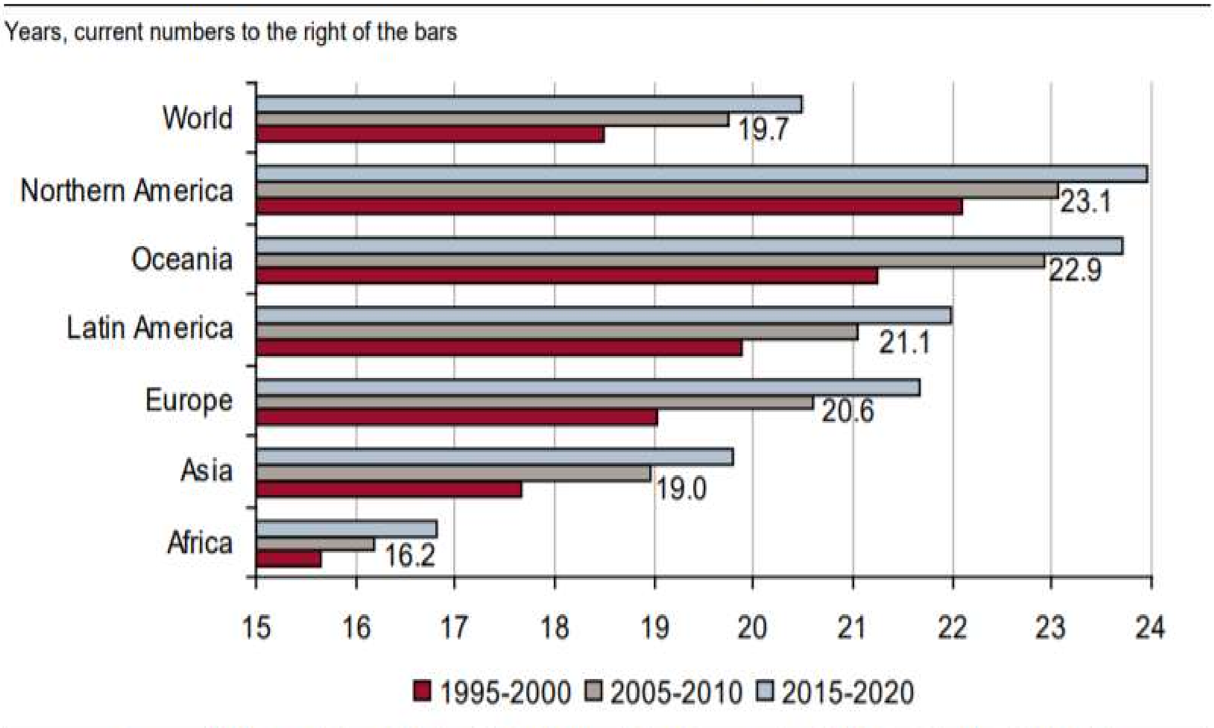


Source: UN Population Division (World Population Prospects, 2010 Revision), Crédit Suisse.

4. **Life Expectancy at 60 years**

Life expectancy at 60 years exhibits identical trends as life expectancy at birth. Individuals aged 60 years in Asia are expected to live 19.0 more years, while the average 60-year-old around the world is expected to live 19.7 more years. Table 2 indicates the life expectancy at 60 years for different parts of the world.

Table 2: Life Expectancy at 60



Source: UN Population Division (World Population Prospects, 2010 Revision), Crédit Suisse.

According to United Nations reports, the life expectancy for India at 60 years was 16.9 years in 2005–2010. This is further expected to improve by 2020–2030.

5. **Gen X–the ascendant generation in terms of wealth and longevity**

People in the 60 years and above have a net worth twice the US average and hold 75% of all personal wealth. Baby boomers hold 52.7% of personal wealth, but that figure peaked at 55% in 2016 and has been dropping ever since. It will continue to drop as baby boomers age. People aged 21–39 years (millennials) hold only 5% of personal wealth, and Mark Zuckerberg owns 2% of millennial wealth. People aged 40–56 years (Generation X) hold 29% of all personal wealth in the US. Gen X is now the ascendant generation in terms of wealth and healthy longevity. Gen Xers are expected to live 20–30 years longer than previous generations. They will have at least two more decades of peak earnings and potentially more with longevity treatments. This demographic will be the first in human history to be able to compound their wealth as well as their expertise.

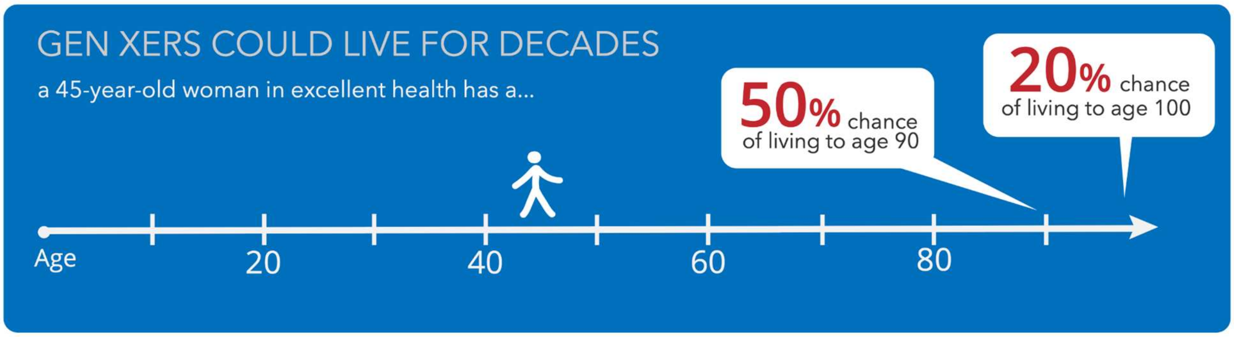


Image Source: Life Planning in the Age of Longevity, Stanford Center For Longevity

Research from the Stanford Center for Longevity suggests that GenXers (aged 40–56 years) are expected to live 20–30 years longer than previous generations. Businesses that provide goods and services to GenXers have the potential of over 11,000 additional days of financial activity from them compared to previous generations.

2.4 Longevity Science

'The science of today is the technology of tomorrow'. – Edward Teller

Renowned author Michio Kaku, in his book titled 'Physics of Future', narrated a story from Greek and Roman mythology: *'The gods of mythology possessed the ultimate power: the power over life and death, the ability to heal the sick and prolong life. Foremost in our prayers to the gods was deliverance from disease and illness. In Greek and Roman mythology, there is the tale of Eos, the beautiful goddess of the dawn. One day, she fell deeply in love with a handsome mortal, Tithonus. She had a perfect body and was immortal, but Tithonus would eventually age, wither away, and perish. Determined to save her lover from this dismal fate, she beseeched Zeus, the father of the gods, to grant Tithonus the gift of immortality so that they could spend eternity together. Taking pity on these lovers, he granted Eos her wish. But Eos, in her haste, forgot to ask for eternal youth for him. So Tithonus became immortal, but his body aged. Unable to die, he became more and more decrepit and decayed, living an eternity with pain and suffering. So that is the challenge facing the science of the twenty-first century. Scientists are now reading the book of life, which includes the complete human genome, and which promises us miraculous advances in understanding aging. But life extension without health and vigor can be an eternal punishment, as Tithonus tragically found out'.*

A. Biotech and health sciences

Many companies are working on developing novel strategies to treat aging-related diseases. A number of companies are developing drugs that target aging, and some of these drugs are currently in the clinical trials phase.

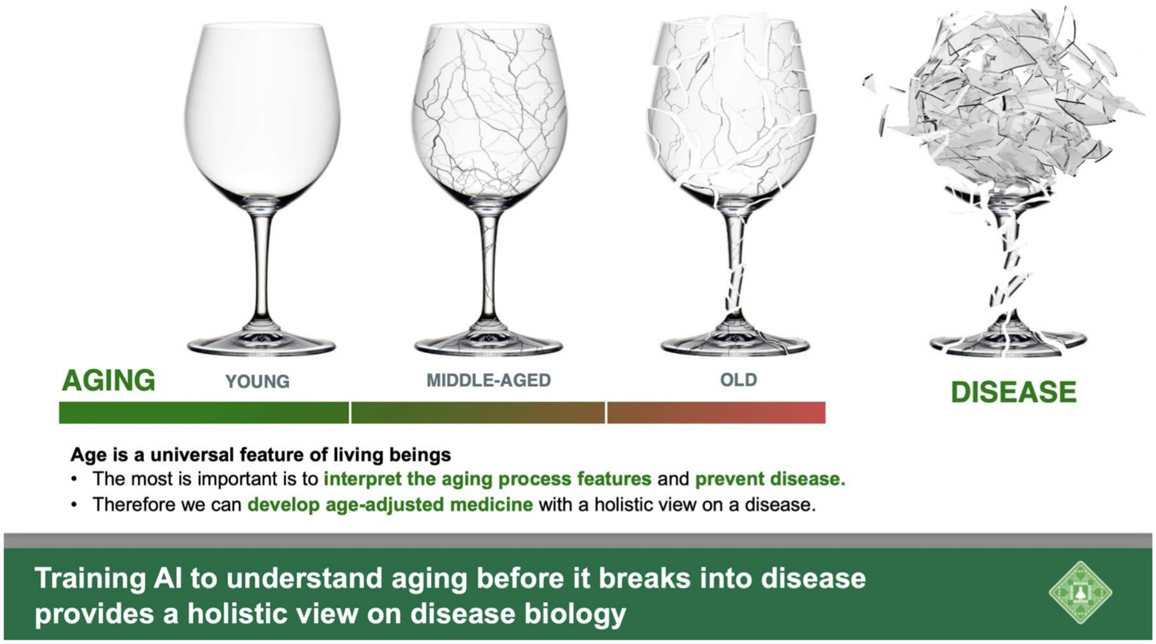


Image Source: Insilico Medicine

In a study published in July 2021 in *Nature Aging*, researchers estimated the cost savings that would result from a conservative longevity intervention. Researchers placed a monetary value on the gains from longer life, better health and changes in the rate at which humans age. They estimated that a conservative treatment that increases healthy life expectancy by only one year would save approximately USD38trillion a year and USD367trillion in ten years. The study shows that interactions between health, longevity, economic decisions and demographics create a virtuous circle. The more successful a society is in improving how people age, the greater the economic value of further improvements.

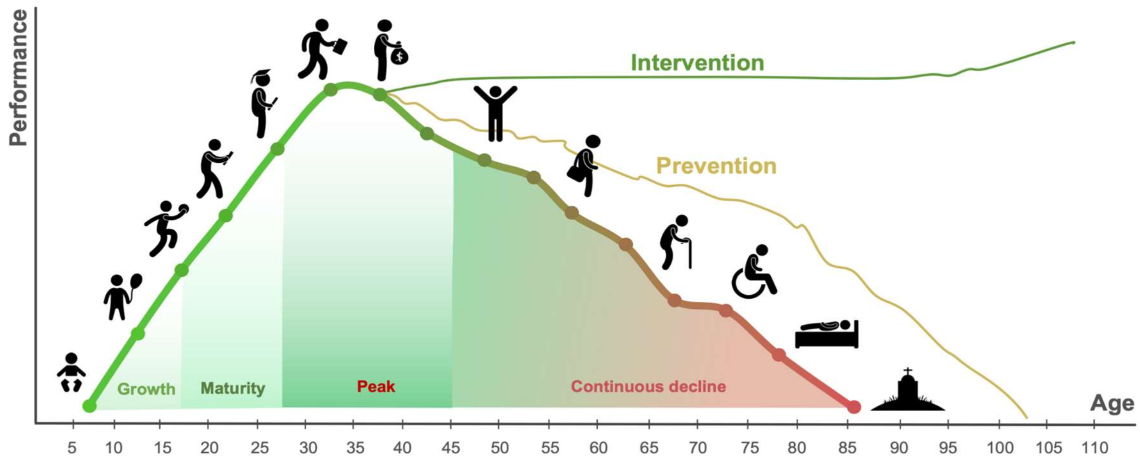
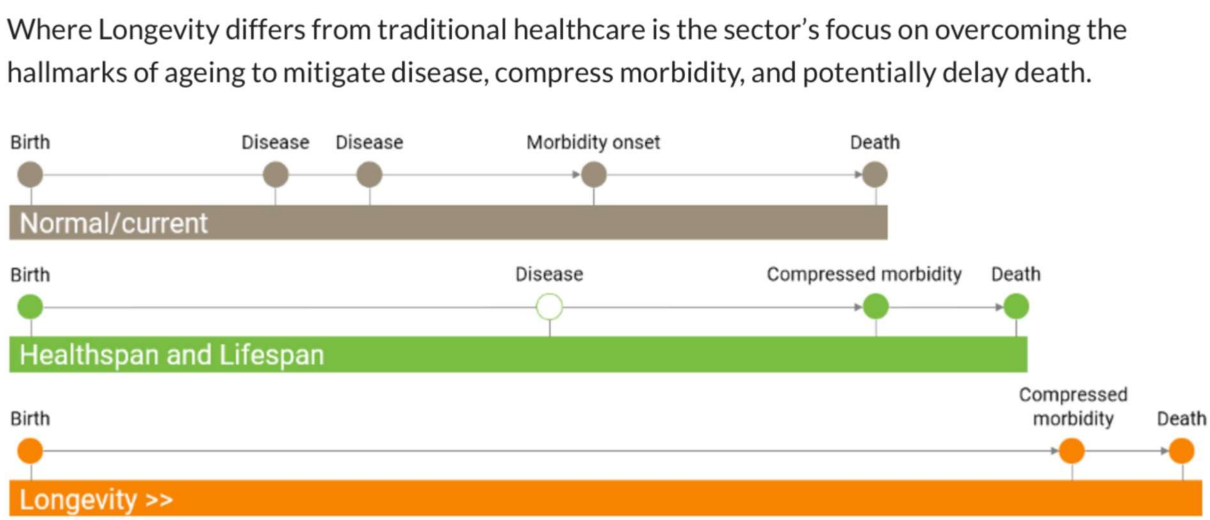


Image Source: Insilico Medicine

Longevity science aims to increase healthspan (the number of healthy years) so that people can remain high functioning as they age. Longevity treatments focus on prevention rather than cure. This means that longevity focuses, for instance, on incorporating changes (through research, development, technology or otherwise) in our lifestyle to prevent cancer rather than provide treatments for diagnosed cancer. Longevity Medicine requires the complete optimisation of health at the deepest level, targeting biological systems that control disease. Numerous companies are working on developing drugs that target aging, and some of these drugs are currently in the clinical trials phase.



Research is ongoing in the field of geoscience to develop interventions that target the biology of aging to increase a person's healthspan by compressing morbidity as people age. Doctors trained in Longevity Medicine will use AI to assess the risk of disease and help people avoid serious illnesses. Longevity Medicine will help people track biological aging, repair damage and improve their health. This will allow people to remain high functioning as they age.

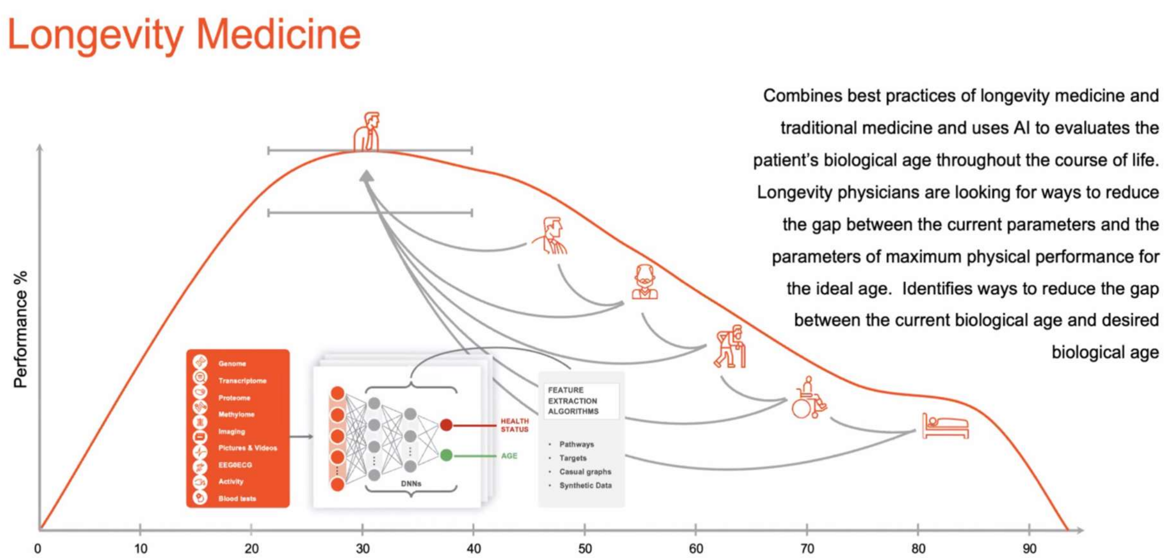
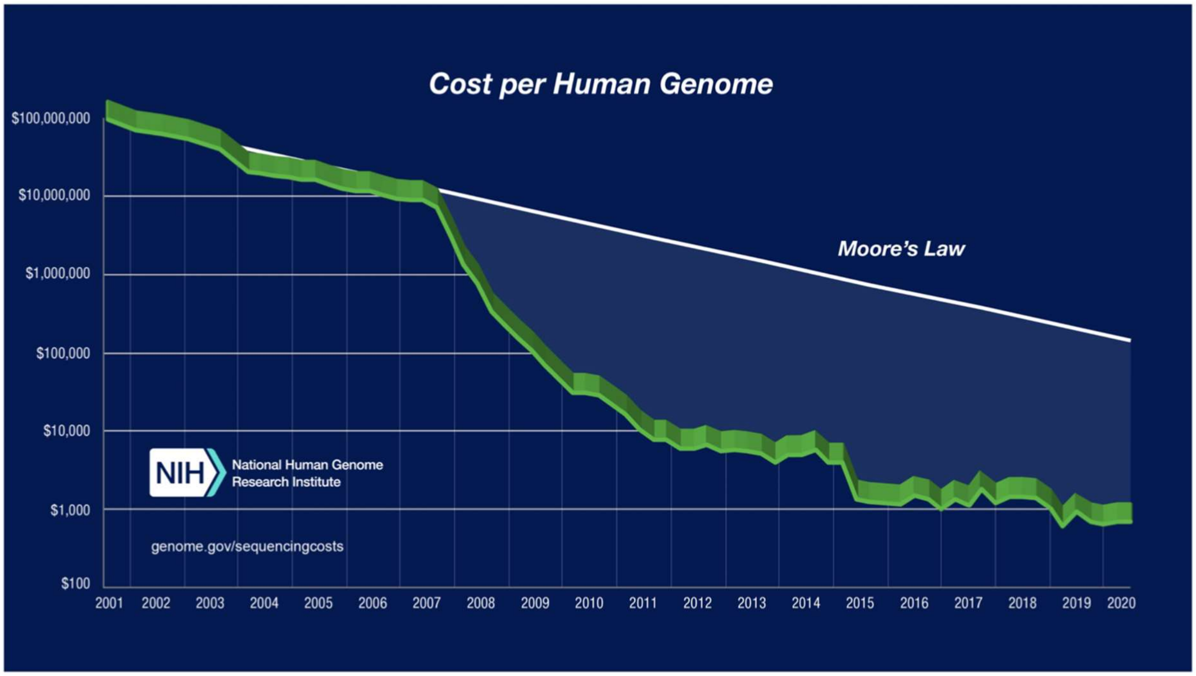


Image Source: Deep Longevity

B. Emerging technologies

Emerging technologies, including AI, quantum computing, nanotechnology and blockchain will play a crucial role in the development and functioning of the Longevity industry. Advances in geoscience, biopharma and biotechnology will transform healthcare. Similarly, FinTech and technology-driven services, along with the capacity to integrate AI, will revolutionise the entire longevity value chain. Therefore, technologically progressive economies will have high potential to develop Longevity Finance Hubs within their territories.



Cost per genome data - 2020

Affordability of longevity treatments

Some assume that only the rich will have access to longevity treatments, leading to social disparities. Longevity treatments may be expensive when they first come to market, but they are expected to become more affordable over time. For example, the cost for generating the initial 'draft' human genome sequence in 1999 was USD2.7bn. Today, the cost to generate a high-quality 'draft' whole human genome sequence has fallen below USD1,500. The same logic applies to longevity treatments.

The integration of data science and AI will enable personalised medical treatments optimised for individuals. Several cycles of feedback between the user and the AI system will deliver treatments designed specifically for each individual person. Longevity companies will apply next-generation AI techniques to drug discovery, drug repurposing and biomarker development. Biomarker development is particularly important because insurance companies will use longevity biomarkers to assess people's biological age and reward people for staying healthy.

The synergy between innovative AI and wealth management will lead to the creation of new financial institutions optimised for people of all ages who are preparing to live extra-long lives. Progressive insurance companies are already offering financial incentives to encourage people to maintain good health.

Recent advances in AI and aging research are expected to disrupt traditional models used by life insurance companies. In the near future life insurance companies will use AI-based aging clocks as part of the underwriting process. Aging clocks are better predictors of mortality than chronological age because aging clocks provide data on biological age that can be used in actuarial tables to better assess risks. These advances will help insurance companies make better decisions regarding risk assessment and premiums and help customers make informed decisions.

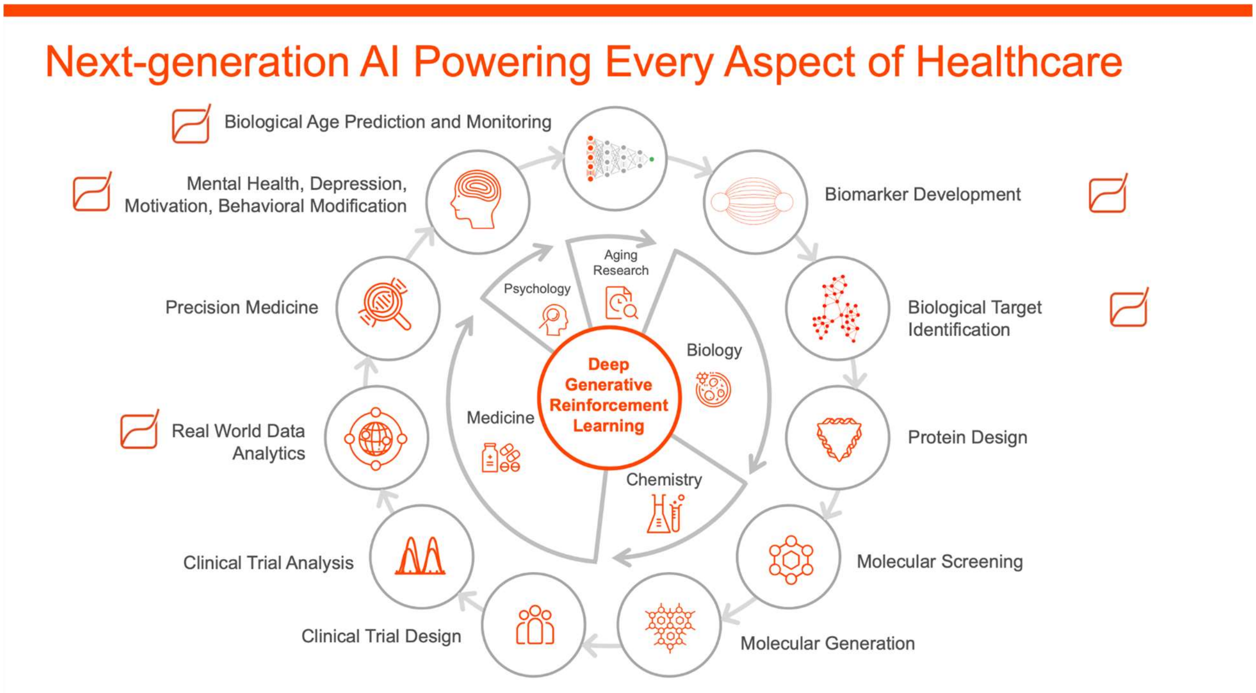


Image Source: Deep Longevity

2.5 The Longevity Economy and Opportunities

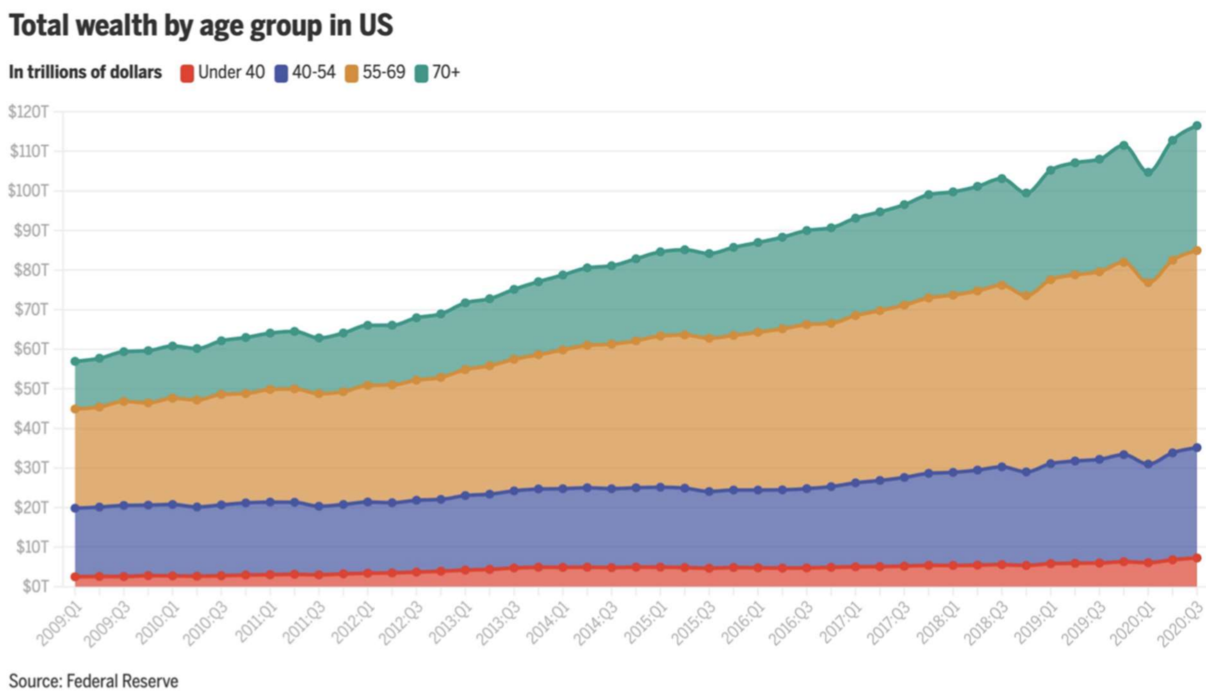
Regions that develop progressive biotech and financial ecosystems will have strong potential to become global leaders in the global Longevity industry. When these industries intersect, novel financial systems will be developed that will treat longevity as a dividend and play an integral role in the Longevity Economy. Global Longevity Hubs will attract people from around the world who prioritise maximizing their healthspan and wealthspan.

The longevity economy offers opportunities to financial services companies, banks, pension funds, asset management firms, insurance companies and healthcare providers. As mentioned above, millions of people are expected to live decades longer than previous generations. With this additional time, they will have more time to accumulate wealth, will have a longer investment horizon, and will benefit from compounding. In Longevity Finance, health is considered more precious than physical wealth and other asset classes. In days to come, the world will witness health as a significant asset class for investment, and greater opportunities will revolve around the longevity economy.

Opportunities for Age Friendly Companies

People over 60 years are the most capable demographic in terms of purchasing power. They make up the wealthiest part of the financial system and have a global spending power of USD15trillion annually. Although this is the most affluent age segment in many countries, most companies focus on designing products and services for younger people. For example, traditional banks were not designed to serve a large number of clients living a very long time. Banks have a small number of clients who are over 100 years, and they are outliers. In the future, people over 100 years will be the most valuable demographic for banks and financial institutions.

In the next few years, age-friendly companies will develop new products designed for customers who are expected to live extra-long lives. Age-friendly products will include healthcare treatments, financial products, and lifestyle products and services that improve the quality of life of older people. Age-friendly companies that tap into this new market will become the most valuable companies in the world. Progressive investment banks, pension funds and insurance companies are developing new business models, and financial companies are using advanced AI to improve the quality of analytics used to formulate them.



The longevity economy is thus poised to offer huge opportunities for innovation, employment and economic growth.

3. LONGEVITY FROM AN INDIAN PERSPECTIVE

भाग्यवन्तम् परिक्षय न कारिणिम् श्रीः परित्यजति

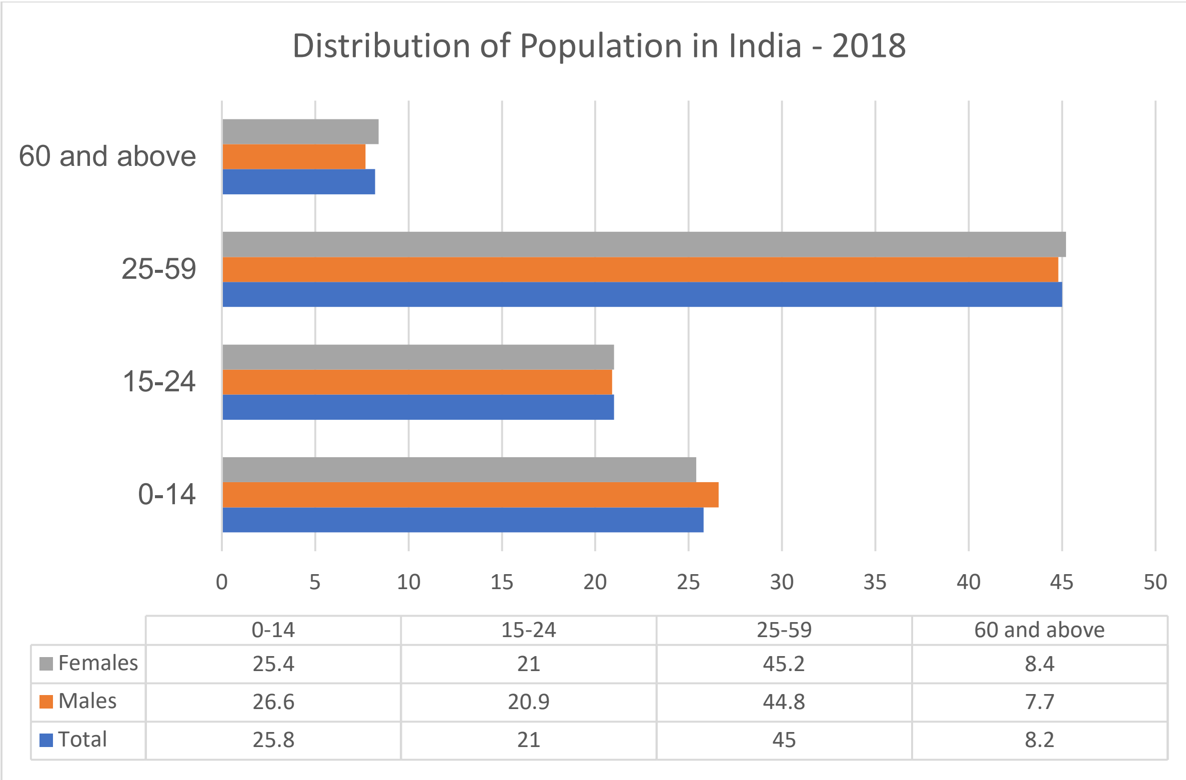
(Goddess Lakshmi abandons them who start a work without examining the opportunities)

This chapter provides insights on longevity from an Indian perspective, referring to the causes that have made it extremely significant. The concept of longevity in developing countries, including India, has been borrowed from developed countries.

3.1. TRENDS IN LONGEVITY

In the Indian context, the process of demographic transition has resulted from a falling birth rate, a slowing death rate and a spike in life expectancy. People aged 60 years or above account for approximately 8.2% of the Indian population as per the SRS Statistical Report 2018[4].

[4] SRS Statistical Report 2018, O/ o Registrar General of India

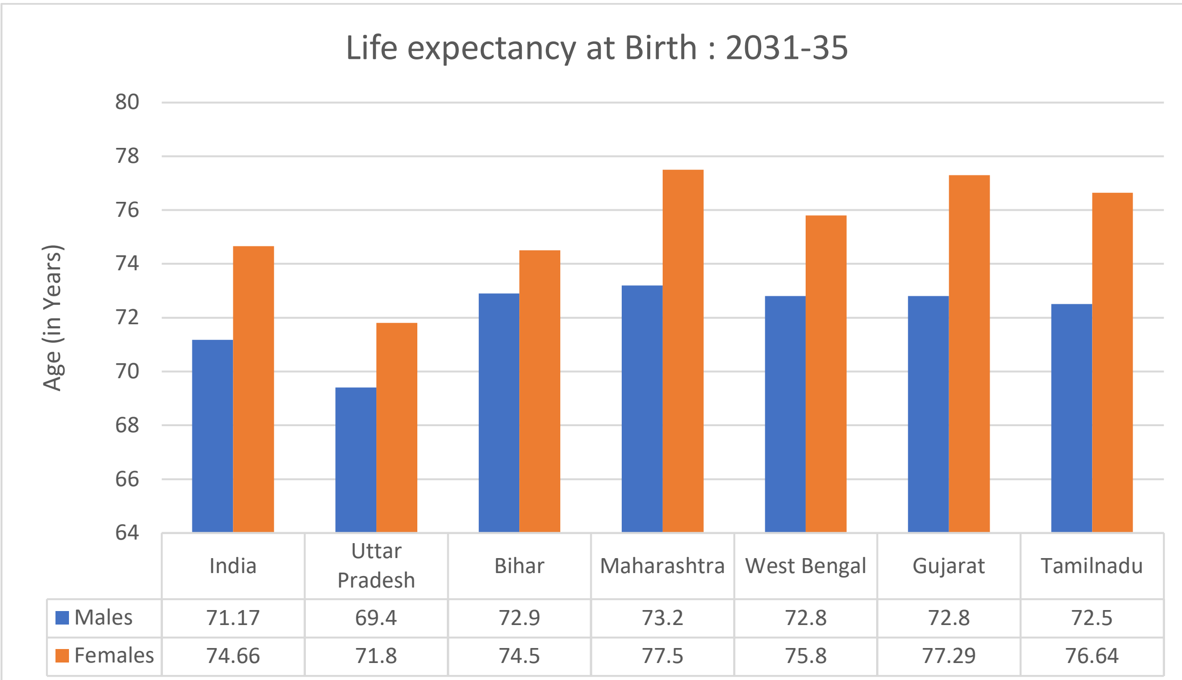


Even though India’s older population is lesser than the world population, India is ageing fast and is expected to be the home of 20% of the world’s population of those aged over 60 years by 2050. The older adult population (45 years and above) in India will rise to constitute over 40% of the population of India or 655m people by 2050. This is as per the Longitudinal Ageing Study in India (LASI) published by the International Institute of Population Sciences, an autonomous organisation of the Ministry of Health and Family Welfare, Government of India.

Life expectancy at birth

As per the National Health profile issued by the Central Bureau of Health Intelligence, Ministry of Ministry of Health and Family Welfare in 2019, the life expectancy at birth has increased from 49.7 years in 1970–75 to 68.7 years in 2012–16. For 2012-16, the life expectancy for females is 70.2 years and that for males is 67.4 years. According to United Nations projections, life expectancy at birth for India is expected to be 74.98 years.

According to the report of the Technical Group on Population Projections issued in November 2019, gender-wise projected levels of life expectancy at birth in India and major States (Uttar Pradesh, Bihar, Maharashtra, West Bengal, Gujarat, Tamil Nadu) during 2031–2035 is depicted in the below chart:



	India	Uttar Pradesh	Bihar	Maharashtra	West Bengal	Gujarat	Tamilnadu
Males	71.17	69.4	72.9	73.2	72.8	72.8	72.5
Females	74.66	71.8	74.5	77.5	75.8	77.29	76.64

https://ourworldindata.org/grapher/life-expectancy-at-birth-including-the-un-projections?country=OWID_WRL~BRA~IND~SWE~JPN

3.2. Financial wealth in India

Financial wealth in India grew from 2015 to 2020 by 11% per annum (p.a.) to USD3.4trillion and is expected to grow by 10% p.a. to USD5.5trillion by 2025. [5] Between 2008 and 2018, private wealth in India practically doubled. [6] However, the 98% growth seen during that period could be eclipsed by the rate of growth anticipated over the coming ten years. This means that India will overtake China as the fastest wealth-accumulating country in the world, and by 2028, the combined private wealth of Indians will be more than double than that held in Australia, Germany, or the UK.

The social security schemes in India cover only a very small segment of the organised workforce, namely workers who have a direct regular employer-employee relationship

[5] As per Boston Consulting Group report
[6] As per the Global Wealth Migration Review 2019 report

within an organisation. Some of the schemes available include pension or Employees' Provident Fund, gratuity under the Payment of Gratuity Act, and health insurance and medical benefit under the Employees' State Insurance (ESI) Act.

3.3. Challenges and Opportunities of Aging in India

India has its own set of challenges and opportunities for the aging population. A majority of the senior population is not covered under any formal health plans or retirement income scheme.

Although longer living populations are a good thing, increased longevity can strain the economy. Current health and retirement programme are designed with a certain life expectancy in mind. As the expected life of an individual increases, governments will have to fund healthcare and retirement programmes for a longer period of time. This is likely to create more pressure on Government revenues.

To address this issue, the Government of India has introduced two voluntary and contributory Pension Schemes to provide old age protection, i.e. (1) Pradhan Mantri Shram Yogi Maan-dhan Yojna (PM-SYM), a pension scheme for unorganised workers, and (2) National Pension Scheme for Traders and Self-Employed Persons (NPS-Traders) (for the Vyaparis) under section 3(1) of Unorganised Workers Social Security Act, 2008.

The schemes envisage providing a minimum assured monthly pension of INR3,000 (~ USD40) after attaining the age of 60 years. If the subscriber dies, the spouse of the beneficiary shall be entitled to receive 50% of the pension as family pension. Family pension is applicable only to the spouse. The monthly contribution ranges from INR55–INR200 (~ USD0.75 to 3) depending upon the entry age of the beneficiary. The schemes are being implemented through the Life Insurance Corporation of India (LIC) and Common Service Centres. LIC is the fund manager and responsible for pension pay-out.

The demographic change discussed above will offer various opportunities in the financial services sector. Insurance companies may need to increase the age horizon for the term insurance to be more relevant to the aging population. The new term insurance policies are restricted for citizens aged beyond 60 years.

Life insurers are uniquely poised to be the only players in the market to cover both the critical risks — the risk of dying too early and the risk of living too long. Protection products, both life and health, provide safety to the policyholders and their families against the risk of death, disease and disability. Annuity products, on the other hand, ensure a regular inflow of income until the annuitant's death, thereby mitigating longevity risk, i.e. the risk of outliving one's savings.

As the population ages and the number of elders increases, their way of life also changes. Elders are wealthier than younger people and seek to spend more on combining treatment with leisure and travel to popular destinations, thus contributing to medical tourism and the accelerating practice of travelling across international locales and territories to seek healthcare services.

Banks may develop products that can cater to the individuals who are likely to live longer lives. Traditionally, financial institutions provide loans for a maximum duration of 15 years. This trend is slowly changing, with loans being now granted for a period ranging from 20 years to 30 years. Wealth management and trusteeship services will be new focus areas for banks. Asset management firms will need to design products that will be simple to understand, which cater to this segment that is likely to be risk averse and will generate stable returns for a longer term. Pension funds will need to rethink about their current plans and how they will be able to cater to the people who are likely to live longer. Medical tourism will evolve, and people will be open to travel to countries that provide quality medical facilities at a lower cost.

As evident, a large number of opportunities are available in the sector.

Technological developments in financial services sector

Simultaneously, financial markets are rapidly changing, with developments in technology. Emerging technologies in the financial services industry have consistently disrupted how consumers deal with their money, what they expect from financial institutions and how those organisations operate.

In today's digital world, new technologies make processes easier and more efficient, reduce errors and improve communication. Chatbots and robotics reduce man hours, improve the quality of customer relationships and improve profitability. According to the PricewaterhouseCoopers (PwC) Report on ‘Technology and Innovation in Global Capital Markets’[7], the trading and sales function is likely to change with the adoption of new technologies that further enable the automation of traditional core front office activities, such as predictive modelling and trade execution. Automation in trading practices via algorithmic tools will support higher volume flow trading on electronic platforms, which can be expected to rely on minimal human decision inputs. The skills profile of some trading staff may, therefore, further shift towards quantitative and analytics disciplines. These roles will increasingly be supported by AI cloud-based tools that can provide services such as news sentiment and market volatility analysis for financial forecasting and early warning signalling. New data platforms supported by AI models may enable firms to be more targeted in how they sell products and services to clients and anticipate their needs (e.g. predicting liquidity requirements). Servicing may evolve to a more self-service and digital-enabled approach to meet changing client expectations. Client interaction may, therefore, be more independent and rely on automated processes that could enhance the overall experience and the ability to process more data, more quickly.

3.4. Retirement Age in India

The current retirement age for all central government employees is 60[8] years. Globally, many countries are reconsidering the age at which people should retire. In India as well, the Economic Survey Report 2018-19 has floated the idea of revisiting the retirement age, given the likely slowdown in its population growth, increase in the senior population, and growing life expectancy.

We have enumerated below retirement age in select countries:

Country	Retirement Age
India	60
Singapore	62[9]

[7] https://www.afme.eu/portals/0/globalassets/downloads/publications/afme-technology-and-innovation-in-global-capital-markets.pdf
[8] Department's Notifications No. 2501212197-Estt. (A) dated 13.5.1998 and 27.5.1998.
[9] Retirement and Re-employment Act 1993. And Amendment bill dated 2 nov 2021

United Kingdom	66[10] (will raise to 68 by 2028)
United States	67[11]
Australia	67[12]
Japan	70[13]

Further, an increase in retirement age will greatly support skilled and qualified seniors to remain active, while continuing to contribute to national growth. Governments should offer support to people in their 60s and 70s by providing them with alternate career options such as teaching in schools, consulting/advisory roles with government/private companies, etc. to keep them highly engaged and productive. This will allow those willing to re-enter the workforce after retirement to invest in necessary skill upgradation and lead a healthier lifestyle.

Japan, for example, introduced a voluntary re-employment system for retirees who can join back the workforce as part-time employees with different work hours and wages.

3.5. GROWING INTEREST IN LONGEVITY

The increasing relevance of longevity to finance has already been well recognised among the international financial community. Well-renowned and respected brands such as 'The Economist' and 'Financial Times' are now frequently hosting conferences, forums, and panel discussions on the subject of aging and the longevity business. Moreover, the biggest investment and private wealth banks are issuing analytical reports for their clients on topical guidance and beginning to structure new financial products that are relevant to the target population.

However, not very long ago, buoyancy regarding the real emergence of geroscience and longevity was very low, and it was nearly unimaginable that this topic could be included

[10] https://www.gov.uk/government/news/second-state-pension-age-review-launches
[11] Social Security Act / ssa govt site
[12] https://www.servicesaustralia.gov.au/who-can-get-age-pension?context=22526
[13] https://www.japantimes.co.jp/news/2020/02/04/national/japan-amend-laws-elderly-work-until-70/

at all in the agendas of the major conferences of big banks. However, the outlook has now changed, and healthspan extension is now a logical topic of discussion for world-leading healthcare thought leaders. The science of aging has matured, and advanced biomedicine is actively implementing modern preventive precision medicine techniques. We are also witnessing the emergence of the Longevity industry, including its financial sector.

The Longevity industry will most certainly display growth for the reasons discussed below:

- Significant market size increase in global life expectancies and other external factors
- Beneficial for investors accelerates access to biomedical technology and life extension
- Way to generate huge profits — by bringing closer to the most advanced longevity technologies and delivering more health to humanity

4. LONGEVITY FINANCE AND LONGEVITY FINANCE HUBS

कार्यबहुत्वे बहुफलमाया तिकम् कुयति

(When there are many options, select the work which has sustainable value)

The longevity economy is becoming an increasingly powerful economic force, encompassing both economic activity serving the needs and wants of the 60+ global population as well as the goods and services directly purchased by them and the knock-on economic effect generated by this.

It is expected that the Longevity industry will impact many areas of our lives. The Longevity industry will be the biggest and most complex industry in human history. The Longevity industry consists of multiple distinct segments, including finance, geroscience, biomedicine and AgeTech . Due to its complexity, the Longevity industry will require unprecedented sophistication in its approach to evaluating investment opportunities. Longevity policies enacted by governments and related changes in the financial industry will transform society.

4.1 NEW INDUSTRIES OF AGETECH AND WEALTHTECH

The financial industry is pivotal to the Longevity industry. Financial institutions that will adjust their business models to the new industries of agetech, wealthtech and Longevity Finance will have a chance to outpace their competitors and grow swiftly.

AgeTech refers to the technologies and services that aim to support the elderly and reduce the everyday consequences of aging. Most typically, these consist of IT-related products and services, optimised for ease of use for those aged 60 years and above, or innovative banking user interfaces and services that facilitate the elderly to conduct daily banking without much difficulty and protect them from financial and cyber frauds.

AgeTech is designed to support elderly people and reduce the consequences of aging in everyday life. Over the next few years, it is likely that both will come to be regarded as complementary functions within a single product or service. One example of this combination will be a new type of FinTech bank that is reconfigured for seniors as an AgeTech-Longevity bank.

AgeTech products for seniors could include products such as medical alert systems, phone amplifiers, senior care robots, walking aids, medication dispensers, smart beds and electric kitchen tools. However, the list can be more widespread and could cover many more segments. One recent trend is a growth in the demand for smart homes for the elderly. This is connected to the fact that many older people prefer to stay in their own homes.

4.2 Longevity Stock Exchange

A fully-fledged Longevity financial industry will be presaged with the creation of a Longevity stock exchange that deals with specialised derivatives and the Longevity Composite Index. This will be the means by which investors will provide adequate liquidity to the Longevity industry (the same way it currently does for the real-estate industry). This would lead to self-sustainable growth in the Financial Longevity industry and will result in reinvesting wealth into productive sectors as well as likely offset the effect of aging on GDP.

Specialised stock exchanges are nothing new. Currently, for example, investors can invest in about 50 major commodity markets worldwide. Those include markets for soft commodities such as wheat, coffee, cocoa and other agricultural products, and markets for commodities that are mined, such as gold and oil. NASDAQ fits that profile as well; it was created as a stock exchange for information technology (IT) companies and is currently the home of tech-oriented stocks.

Specialised stock exchanges typically form when an industry grows by a sufficient amount, and with the Longevity industry in its present state of maturation, a Longevity stock exchange now appears to be inevitable. Setting up a Longevity stock exchange would require the public listing of at least 100 longevity-focused companies to create good enough diversity and potential volume for trading.

This would provide increased liquidity, which in turn would enable greater flexibility and greater leverage for the further growth of the companies listed on the exchange, and as such, greater opportunities for advancement of the Longevity industry as a whole globally. The more the advances in longevity, the more the number of investors. Even the most conservative investors will want to invest, and by that point, they would have been well advised that longevity is an unparalleled industry.

According to the available data, global investments in longevity-focused companies amounted to USD30.3bn in Q1 2021. Some of the major investor companies are Citigroup Inc., Shanghai Pudong Development Bank, Sberbank, Ping An Insurance and BNY Mellon.

4.3 Global examples of Longevity Offerings

HSBC Life Para-Medical Centre in Hong Kong

HSBC in Hong Kong is integrating financial services and health management. HSBC is the only financial institution in Hong Kong to offer on-premises professional medical experiences, alongside protection, wealth and legacy planning. Adjacent to the HSBC Wealth Centre is the new HSBC Life Para-medical Centre, which allows customers to complete pre-insurance medical examinations and participate in other health and wellness management programs. Examination reports are

made available on the same day to ensure a smooth and efficient underwriting process.
LifeHub Biological Age Reports for Insurance and financial planning LifeHub and LifeClinic are the largest functional medicine-based medical wellness and medical clinic facilities in Hong Kong. They have announced a partnership with Deep Longevity. They provide their clients with biological age reports to help them customise their health and financial planning.
Prudential Singapore Financial Planning for Longevity Prudential in Singapore has partnered with The Business Times on a series of articles on financial planning, retirement planning and growing wealth with increasing longevity.

4.4 Hubs for Financial Industry and Preventive Medicines

A Longevity Finance Hub will act as a central point that offers all sorts of financial products in the Longevity industry, and it is expected that various Longevity Finance Hubs will emerge in the next few years. Contrary to the terminology, Longevity Finance Hubs are not limited to merely the financial services industry and are distinguished as being hubs for both the financial industry as well as the preventive medicine industry.

There is a wide range of products that can be, and are being, developed to cater to the Longevity industry. Financial systems that can be moulded to service the aging population include age-friendly banks (commercial banking services, products or facilities catered to make banking easier for older persons); longevity investment index (investment index of companies that benefit from longevity or are otherwise in the Longevity industry); longevity-focused hedge funds; and a specialised longevity stock exchange to provide multiple types of derivatives linked to the underlying equity of companies benefitting from or in the Longevity industry.

For instance, hundreds of longevity companies including start-ups can get listed on the specialised longevity stock exchange and can seek funding from the public in addition to angel or anchor investors. This will offspring a whole new industry. The market capitalisation of this stock exchange could possibly exceed anything ever conceived of by financial markets.

Financial institutions such as investment banks, pension funds and insurance companies will implement novel business models and structure new financial products relevant for the people who live long lives. Novel types of financial products, asset classes and longer tenure bonds are expected to be developed.

4.5 INSTRUMENTS TO MANAGE LONGEVITY RISK

Longevity Risk Transfer Instruments The insurance company can develop longevity risk transfer instruments. These instruments that can be used to transfer longevity risk are based on the types of risk transferred. Insurers are linked with pension buy-ins, buy-outs and longevity insurance, while investment banks and reinsurers are connected with longevity swap transactions. Banks in most countries refrain from issuing or playing a part in longevity risk in the form of annuities, buy-ins and buy-outs, but can indirectly participate in swap transactions.
Longevity swap (or insurance) transaction The sponsor of the plan makes fixed periodic payments to the swap counterparty, which makes intermittent payments that are based on the difference between the actual and expected benefit payments. The sponsor assumes full responsibility for making benefit payments to the employees. Swaps help to isolate longevity risk and can be combined with other derivative contracts such as inflation, interest rate and total return swaps.
Longevity bonds The pay-out on longevity bonds depends on the longevity experience of a given population so that the payment is related to the number of survivors in the

population and the bond would end up paying out more as the proportion of survivors in the reference population rises. Counterparty risk in the case of bonds can be negated if they are issued by a high-quality sovereign or supranational, or by a special purpose vehicle that invests the proceeds in low-risk, highly liquid, fixed-income securities from which the income covers the bond pay-outs.

Longevity Finance Hubs would integrate health and financial services by assimilating multi-dimensional elements such as healthcare, geoscience, biotechnology, pharma, precision medicine, AI, FinTech, innovative financial products and services, among others.

The COVID-19 pandemic has exposed the world to better adapt to health sector challenges and create a more resilient, sustainable and adaptable ecosystem around health and financial services. The concept of a Longevity Finance Hub can go a long way in addressing the prevailing health crisis and help better prepare for the future.

We recommend that the IFSCA should explore the development of a unique Global **Longevity Hub** in India's maiden GIFT IFSC based out of Gandhinagar in the State of Gujarat in India.

5. GIFT-IFSC AS A GLOBAL LONGEVITY HUB IN INDIA

दैवम् विनतिप्रयत्यनम् करोति यत्तद्विवफलम्

(A well planned work produces good results)

The IFSCA has been established as a unified regulator to develop and regulate financial products, financial services and financial institutions in the IFSC in India. There is an opportunity for the IFSCA to set a new global benchmark by providing an environment that fosters innovation in financial products and services and developing the Longevity Finance Hub in the GIFT-IFSC.

5.1. Conceptualisation Of Longevity Hub

The IFSCA can consider developing a Global Longevity Hub at GIFT IFSC based out of Gandhinagar. It would act as a central point offering all sorts of longevity based financial products and services in the Longevity industry. The Longevity Finance Hub can also provide a one-stop solution towards preventive medicine industry in addition to financial products and services.

The Longevity Finance Hub at GIFT IFSC would enable integrating the health and financial services by adapting multi-dimensional elements such as healthcare, geoscience, biotechnology, pharma, precision medicine, AI, FinTech and innovative financial products and services, among others.

Creating Global Longevity Hub in IFSC at GIFT City

The concept of Longevity hub is a new and has many components to it. While some require regulatory framework, support and intervention, others will require development of the ecosystem to aid the growth of Longevity industry at GIFT City and globally.

Leading corporates and Financial institutions such as Banks, Pension Funds, Asset Management Funds, Insurance Companies, among others can jointly form a hub to provide institutional arrangement for the development of globally recognised longevity hub in IFSC. It will be the responsibility of the Hub to focus on developing various longevity solutions. They will coordinate with all the potential stakeholders including the regulators.

While IFSCA can work on the regulatory framework, to help aid the development of the ecosystem, an industry-led and supported organization can be created that shall be called Global Longevity Hub (GLH).

Structure of GLH

Like-minded Organizations with interest or presence in IFSC at GIFT City will come together as founding members of GLH with support from IFSCA and the government of India. This would create institutional arrangement to take forward longevity agenda for IFSCA. It will be an independent organization with its own staff and advisory board. While the initial funding will come from the founding members, the goal of GLH should be to become financially self-sustaining with minimal annual financial support from its members.

Goal of GLH

GLH should achieve two purposes, 1. To establish IFSCA and GIFT City as the global longevity Hub and innovation centre, and 2. To nurture the growth of Longevity industry by building collaboration with Industry, Institutions and Regulators.

5.1.1. Davos of the longevity industry

Towards achievement of its first purpose, GLH should hold a global convening platform for industry players. The platform should become the place where ideas, challenges and opportunities are discovered and through discussion, developed into opportunities. Through sponsorship this can be a self-funding initiative and a great brand building program. Such a measure would help in making GIFT IFSC the Davos of the longevity industry.

To nurture the growth of the industry it could undertake various initiatives. There can be several of such initiatives. To begin with, it could consider the following:

5.1.2. Skill Development

The concept of Longevity is new and evolving. GLH should work with industry experts and create a certification program for professionals and students who want to acquire understanding and domain knowledge about the Longevity industry. As the industry grows and evolves, it will require trained manpower and this paid certification program will raise awareness and generate the requisite talent pool. Detailed measures on how to operationalise such an initiative are discussed in chapter 8.

5.1.3. Financial Literacy for Women

It has been observed that women generally outlive men and thus will be one of the hardest hit segments from the healthy ageing population trend. They need to have a good understanding of finance to better support and manage themselves. GLH will work with premier education institutions like IIMs to create a financial literacy program for women. Global organizations can borrow the program at a cost and deliver it globally as part of their CSR program.

5.1.4. Silver Entrepreneurship

While the world is focused on backing young start-ups the real opportunity is at the other side of the spectrum – the 50 plus – the Silver Generation. This segment has wealth, wisdom and thanks to medical advancement a long healthy and productive life ahead and thus are prime candidate to be entrepreneurs. To change the worry of long retired life into an active and productive life will require awareness, change of mindset, mentorship and seed funding. GLH will create a start-up Eco system for the silver generation, exactly the way it has been done with alpha generation and it can take an ideas and inspiration from Atal Tinkering Labs which successfully created the culture of startup among students.

IFSCA can set up a shorter and simpler approval process for incorporating a company/firm, coupled with ease of doing business for start-ups focused on Longevity.

Permitting Financial institutions incorporated in the IFSC to invest in these start-ups will facilitate access to Capital. This will help setup a virtuous cycle to create a larger ecosystem which is required to serve the needs of an aging population, including financial services, healthcare, etc.

5.1.5. Sand-boxing of Product Ideas and Tech Solutions

The industry understands opportunities the longevity industry offers but lack the ways to capitalize it. One way to find the ways is to create hackathon and a sand-boxing environment which GLH can create in partnership with IFSCA and industry.

It can focus on two areas:

- Financial Product Innovation;
- Technology solution, especially in the area of convergence of financial, wealth, Med and Health technologies.

This can be an annual event which will attract global talent pool and can be commercially self-sustaining with support from sponsorship and industry partnership.

5.1.6. Life Para Medical Centre

It is suggested that GLH may integrate financial services and health management. It may offer on-premises professional medical experiences, alongside protection, wealth and legacy planning. The Life Para-medical Centre would allow customers to complete pre-insurance medical examinations and participate in other health and wellness management programs.

Other Initiatives/ recommendation for GLH

- **Regulatory and Product Portability:**

  IFSCA can provide the following options to the **global institutions**:

  If the global institution already has longevity related product licensed by any FATF complaint jurisdiction, they can apply to IFSCA for recognising their approved global product for distribution in the global market including IFSC, and/or

  If they intend to provide the solutions/products to the Indian market, IFSCA would coordinate with the domestic regulators to enable portability of such products in the Indian market.

  IFSCA can provide the following options to the **Indian institutions**:

If the Indian institution already has longevity related product licensed by domestic regulator, they can apply to IFSCA for recognizing their approved product for distribution in the global market including IFSC.

It is recommended that IFSCA being a unified regulator should leverage its position by developing inter-regulatory connects and portability. It is suggested that IFSCA should work closely with domestic regulators to make IFSC a landing point for Longevity products which are not available in the Indian market. This would enable global institutions to develop longevity products for Indian market to IFSC under a unified environment and thereby help India develop such critical products. For the domestic regulator, the risk will be minimized as the experiment would be only limited to the IFSC zone. Similarly, IFSC should also have tie-up with overseas regulators for introducing products innovated in IFSC for making them available in the global markets.

- **Development of Longevity Financial Products by entities regulated by IFSCA:** In order to develop Longevity financial products, it is suggested that IFSCA should encourage all its licensed entities to develop Longevity products and acknowledge the implementation of the same by the entities under a single license. IFSCA should also provide all regulatory and other support required for institutions to develop Longevity products under a sand-box or commercial frameworks.
- **Holistic Senior Care:** The IFSC can look at developing itself as a center for holistic senior care. This will go beyond just the financial aspects and would cover their socio-economic aspects as well. It can be a model wherein a senior citizen could pay a lump-sum amount against which all aspects of his / her life are covered by the institution to which he paid the money .This idea will need the IFSC to solution for senior living, senior social connect opportunities, medical tech for senior citizens, interventions for specialised senior care, travel & entertainment facilities suited for senior citizens, and advanced research facilities for old age conditions like Alzheimers, dementia etc., amongst others. It will have to be a community of many different kinds of people, so as to bring in diverse skillsets even among the senior citizen population that it is seeking to attract. The IFSC will need to focus on facilitating such enriching activities

and the success of this idea will lie in their well-designed programs which the senior citizens find appealing.

- **Longevity solutions targeted at NRIs/OCI/PIO:** Financial institutions incorporated in GIFT City should be permitted to offer longevity products denominated in USD. The legal and regulatory framework does not permit the same within the domestic tariff area of India (as far as insurance is concerned). However, longevity products denominated in USD are better suited to meet the demands of the NRI / OCI / PIO population (as well as foreign nationals). There is a huge population of NRIs which can be catered to through USD denominated instruments.

6. INSURANCE, RE-INSURANCE, PENSION FUND & MEDICAL TOURISM

मा कुरु धनजनयौवनगर्वं हरति निमेषात्कालः सर्वम्

(Don't be proud of wealth, people or youth; time takes them away in a minute.)

Current scenario and recommendations

One of the key challenges confronting countries with an aging population over the coming years is guaranteeing the older population an adequate level of income, without placing excessive demands on younger generations and national economies.

In developed countries, the elderly are covered by an elaborate social security system. In developed countries, where acute care and institutional long-term care services are widely available, the use of medical care services by adults rises with age, and per capita expenditures for health care are relatively high among older age groups. Accordingly, the rising proportion of older people is placing upward pressure on overall health care spends in the developed world, although other factors such as income growth and advances in the technological capabilities of medicine generally play a much larger role.

Relatively little is known about aging and health care costs in the developing world. The nature of the issues of the elderly is vastly different due to factors such as chronic poverty, unemployment and underemployment as well as the existence of a large informal sector. The majority of the elderly rely on their children for old age security. Those who are better-off rely on their savings. Smaller family sizes and declining prevalence of co-residence by multiple generations will likely introduce further challenges for families in caring for older relatives. As more developing country residents seek jobs in cities or other areas, their older relatives back home will have less access to informal family care. The social security schemes in India cover the segment of the organised work force, namely workers who have a direct regular employer-employee relationship within an organisation. Some of the available schemes include pension or Employees' Provident Fund, gratuity under the Payment of Gratuity Act, and health insurance and medical benefit under the ESI Act.

Apart from the available social security measures, older people can also invest in instruments for retirement planning such as insurance policies and pension funds.

The penetration of financial savings products such as insurance — both life and non-life — as well as pension products is low in India. Insurance penetration in India was pegged at 3.76% in financial year (FY) 20, with life insurance penetration at 2.82% and non-life insurance penetration at 0.94%.[14] Insurance penetration in Japan stood at 7.3% and in Malaysia at 4.5%.[15]

Penetration of pension in India too is low at 24% of the population above retirement age, compared with over 80% in Japan, 78% in Korea and 74% in China. In terms of the percentage of labour force that contributes towards retirement pension, India fares poorly with approximately 12% compared with Japan (100%), South Korea (78%), China (56%), and the Philippines (26%).[16]

Low penetration of insurance and pension products in India presents both a challenge as well as an opportunity.

Pension plans for government employees

Country	Type of pension plan	Contribution	Current cost as a % of GDP	Expected cost as a % of GDP by 2050
India	Before 2004: Defined benefit	Defined benefit: Funded by the government	1.0	1.0

[14] As per 'Indian Insurance Industry Report, June 2021' published by India Brand Equity Foundation

[15] As per Organisation for Economic Cooperation and Development (OECD) statistics on insurance penetration, 2019

[16] As per Credit Rating Information Services of India Limited (CRISIL) report dated March 2019

	After 2004: Defined contribution	Defined contribution: 10% by the employee, 14% by the employer		
China	Defined benefit	Funded by the government	4.3	9.5
Indonesia	Defined benefit	Funded by the government	0.8	1.2
Philippines	Defined benefit	Funded by the government	1.7	Not available
Malaysia	Defined benefit	Funded by the government	2.0	Not available

Source: OECD, Asian Development Bank (ADB), CRISIL Research

Financial wealth in India grew from 2015 to 2020 by 11% p.a. to USD3.4trillion and is expected to grow by 10% p.a. to USD5.5trillion by 2025. [17] Between 2008 and 2018, private wealth in India practically doubled. [18] However, the 98% growth seen during that period could be eclipsed by the rate of growth anticipated over the coming 10 years. This means that India would overtake China as the fastest wealth-accumulating country in the world, and by 2028, the combined private wealth of Indians will be more than double of that held in Australia, Germany or the UK.

A significant share of household savings are invested in financial products. Life insurance constitutes ~17% of financial savings. Movement towards higher financialisation of savings is set to continue. Multiple products compete exclusively in the savings space, and investor behaviour is influenced by factors such as short-term or long-term needs, liquidity and tax exemptions.

[17] As per Boston Consulting Group report
[18] As per the Global Wealth Migration Review 2019 report

6.1 INSURANCE

Life insurers are uniquely poised to be the only players in the market to cover both the critical risks — the risk of dying too early and the risk of living too long. Protection products, both life and health, provide safety to the policyholders and their families against the risk of death, disease and disability. Annuity products, on the other hand, ensure a regular inflow of income until the annuitant's death, thereby mitigating longevity risk, i.e., the risk of outliving one's savings.

As the population ages and the number of elders increases, their way of life also changes. Elders are wealthier than younger people and seek to spend more on combining treatment with leisure and travel to popular destinations. This is known as medical tourism, the accelerating practice of travelling across international locales and territories to seek healthcare services.

Indemnity is the backbone of health insurance products, with its ability to deliver comprehensive cover to consumers. There is an inherent synergy in the holistic proposition of human life and health and the distributors' proposition to customers. Furthermore, morbidity and mortality expertise go together. Life insurers understand morbidity assessment as they already offer fixed benefit health plans, health riders with their protection plans, critical illness, cancer and cardiac covers. Being risk managers for both the short and long term, life insurers are at a natural vantage position to offer a strong value proposition to meet the health insurance needs of their customers owing to their strong capital and actuarial experience.

It is submitted that, IFSCA, being a unified regulator , should permit , the products in line with the international best practices. For example, life insurers in IFSC should be allowed to offer indemnity-based individual health products, with a minimum tenure of three years. This product may be offered to non-residents and to residents subject to FEMA restrictions. Moreover, since life insurers are risk managers for the medium to long term, they are better aligned to offer health products with a slightly longer tenure, as compared to general and health insurers.

We have examined the definitions and scope of 'life insurance' and 'general insurance' or 'non-life insurance' (also known as personal insurance and property insurance respectively in some jurisdictions) under the Insurance Act, 1938 (India) as well as analogous provisions in other jurisdictions. Based on a preliminary analysis of the prevailing laws of countries such as the UK, Germany, South Africa, Australia, China, South Korea, Japan, Singapore, Hong Kong, Malaysia and Indonesia, it is noted that in countries such as China, Malaysia and South Africa, life insurers are permitted to conduct health insurance business whereas general insurers are not.

Moreover, in countries such as Singapore, Hong Kong, Japan, South Korea, China, Malaysia, Indonesia and Australia, life insurers are permitted to provide value-added services to them customers, aimed at encouraging healthy lifestyles, building customer loyalty through rewards programmes, providing estate planning services, etc. The insurance laws of Japan, South Korea, China, Malaysia and Australia explicitly state that insurers may undertake activities that are incidental to the insurance business.

In countries such as South Korea and Indonesia, both life insurers and general insurers are permitted to sell health insurance. In countries such as Japan and Singapore, life insurers are permitted to sell health insurance and accident insurance. Furthermore, general insurers are not permitted to sell categories of health insurance permitted to life insurers.

In countries such as the UK and Hong Kong, both life insurers and general insurers are permitted to sell health insurance. However, life insurers are permitted to sell only long-term health insurance policies, while general insurers are permitted to sell health insurance to the exclusion of categories permitted to life insurers.

Recommendations

Single licence for distribution, manufacturing of financial products and services

To create an enabling regulatory environment that is conducive to the provision of financial services, it is suggested that the IFSCA should permit financial institutions to distribute numerous financial products and services under a single licence or certificate of registration. This will enable entities to cater to the holistic financial needs of customers and will in turn result in the creation of one-stop shops for all financial products and services throughout the course of an individual's life. This will also provide an opportunity for increased brand resonance and stronger customer connect and loyalty.

The unified regulatory environment at IFSC also offers opportunity to explore a single composite insurance licence for the manufacturers of financial products and services. The IFSCA may evaluate having appropriate barriers to prevent contagion risk for entities engaged in more than one line of insurance business.

Health savings products

Given the potential increase in health care expenses over a decade and limited coverage in the current health insurance products, it is imperative to look at options for building a corpus that can be utilised for health care needs.

The corpus can help with the following:

- Pay for future health insurance coverage, particularly during old age, when income is limited.
- Take care of medical inflation.
- Outpatient care spends such as medicines, diagnostics and doctor consulting.
- Spends not covered under health insurance, e.g., pre-existing diseases, dental, IVF, HIV, nursing at home etc.
- Old age health expenses, when insurance coverage could be limited or expensive.

To address this need, IFSCA may consider permitting insurance companies in IFSC to offer a health savings product on the unit-linked platform. It may be in the form of a whole life health plan, with health insurance coverage upto the age of 75 years and access to funds for health-related expenses upto the age of 100 years. The health insurance cover could be the fixed benefit cover for in-patient hospitalisation, surgeries, etc., while the health savings kitty could be the corpus built through investing in funds, which may be utilised for any kind of health-related expenses.

Life settlement in India

Today, in the US, life settlements are experiencing tremendous growth, which can be attributed to strong demographic shifts such as aging baby boomers and instable financial markets, which are creating further incentives for seniors to part with their life insurance policies.

A life settlement is a transaction whereby a senior sells their insurance policy to an institutional investor for more than the cash surrender value but less than the coverage amount. The investor pays all subsequent premiums until the death benefit is collected. This gives investors revenue streams which are not correlated with other markets and allows consumers to receive a lump sum to pay off debt or simply provide financial stability.

The legal and conceptual basis for a secondary market in life insurance originated from a US Supreme Court case, which established that policy owners have the right to transfer an insurance policy in a manner similar to any other asset. The first form of the modern-day settlement market was the viatical settlement market of the 1980s, where men diagnosed with AIDS sold their life insurance policies to third-party investors. A viatical settlement is defined as the sale of an insurance policy when the life insured's life expectancy is less than two years.

Potential sellers of life insurance policies should understand clearly that a third party will benefit from their death. For a well-regulated market, it is also necessary that policyholders behave reasonably or ethically when arranging a sale. Individuals taking out a policy should not engage in some kind of deception, where the insured's intention is to sell the policy to an investor as soon as possible.

Life settlement is not practised in India currently. However, the Insurance Act, 1938 does permit the assignment or transfer of insurance policies.

The Insurance Act, 1938 clearly states that trading in insurance policies is not permitted. However, policies are generally assigned for the purpose of obtaining loans from financial institutions. As per the Insurance Act, 1938, the insurer is required to determine if the assignment is bona fide, in the interest of the policyholder or in public interest and is not for the purpose of trading in insurance policies.

The life settlement industry in the US is a heavily regulated one. A majority of the states require a two-year waiting period from the time a life insurance policy is issued to when it can be sold. There are also substantial consumer protection norms, and life settlement providers and brokers are required to be licensed. Several disclosures educate policyholders about their options.

The IFSCA could consider a similar set of comprehensive regulations for policies issued by Insurance companies in IFSC.

Cover for NRIs and foreign nationals

Insurers in IFSC should also be permitted to offer personal accident cover, baggage loss, documents loss cover and travel health insurance anywhere in the world for NRIs or PIOs. Insurers should also be permitted to issue homeowner policies from the IFSC for covering property owned by senior citizens namely NRIs or PIOs in India and abroad. The above policies can also be extended to foreign nationals.

Health Insurance for silver generations

The quality of healthcare has increased tremendously over the years. The challenge for silver generation is how to finance them. This is where health insurance becomes critical for them. There are many interesting products available globally to take care of the health needs of the silver generation. The Longevity Hub can facilitate making these products available to NRIs/PIOs and others globally. If these products are not available in India, we can allow Indian nationals to avail these products from GIFT IFSC.

6.2 ECOSYSTEM FOR HEALTH, WELLNESS, FINTECH AND INSURTECH

Current scenario

The Insurance Act, 1938 defines ‘Indian insurance company’ as follows: ‘any insurer, being a company which is limited by shares, and, (a) which is formed and registered under the Companies Act, 2013 (18 of 2013) as a public company or is converted into such a company within one year of the commencement of the Insurance Laws (Amendment) Act, 2015; (b) in which the aggregate holdings of equity shares by foreign investors, including portfolio investors, do not exceed seventy-four per cent of the paid up equity capital of such Indian insurance company; and (c) whose sole purpose is to carry on life insurance business or general insurance business or re-insurance business or health insurance business'.

Thus, the current regulatory regime does not permit an insurance company to conduct any other business or allied activities. Hence, insurers are disbarred from holding a controlling stake in or forming FinTech or InsurTech subsidiaries or subsidiaries offering wellness and preventive care services or other allied value-added services. Based on a preliminary analysis of the prevailing laws of countries such as the UK, Germany, South Africa, China, South Korea, Japan, Singapore, Hong Kong, Malaysia and Indonesia, it is noted that in countries such as China and Hong Kong, insurers are permitted to set up insurance asset management companies to manage their investments and outsource their investment function, subject to suitable supervision by the Board respectively. In countries such as Malaysia and Indonesia, insurers are also permitted to invest in assets situated in foreign jurisdictions. Moreover, in countries such as South Korea and Japan, insurers are permitted to hold subsidiaries, either as controlling shareholders or as investors. For example, in South Korea, insurers are permitted to hold financial businesses, credit information businesses and even banking companies (subject to certain stipulations) as subsidiaries.

The current regulatory regime in India does not enable the operation of a complete ecosystem of health and wellness providers, as well as FinTech and InsurTech initiatives under the common control of a single parent. This has led to disjointed developments in the health and wellness as well as FinTech and InsurTech spaces.

Recommendations

To create an ecosystem that is conducive to the development of FinTech and InsurTech and holistic health and wellness service providers, as well as the provision of value-added services, the IFSCA may, as mentioned above, evaluate allowing financial service providers to also engage in other lines of business that are allied to their core businesses.

This will pave the way for the organic growth of the health and wellness space, as well as FinTech and InsurTech initiatives. Allowing financial institutions to hold subsidiaries operating in this space will help in providing a comprehensive suite of services to customers and enhance value proposition.

The current regulatory regime neither prohibits nor specifically allows life insurers to undertake wellness and preventive care initiatives. In addition to extending wellness and preventive care initiatives, insurers operating from IFSCA may also be allowed to offer certain other value-added services to their customers based on their life stage requirements, such as holistic wellness programs, legacy creation, retirement planning and document vaults.

Moreover, these allied programmes should be allowed to be offered through a single window approval, instead of being required to be filed along with each product's filing documents. If a composite licence is granted to insurance providers, all providers may be permitted to offer wellness and preventive care initiatives, as well as allied value-added services to their policyholders. Insurers should be permitted to propagate the same, as it will be beneficial for both company and customer alike.

To increase the operating flexibility of insurers, they may be permitted to create wholly owned subsidiaries for the purpose of conducting training and development activities or housing training facilities. This will allow insurers to conduct activities such as the training and incentivisation of frontline sales employees with a greater degree of flexibility.

6.3 REINSURANCE AND RISK MITIGATION

Current Scenario

Following the nationalisation of the non-life market by the Indian government in 1972, GIC was set up, tasked to supervise and control property and casualty insurance, which, at the time, was wrapped around four major national insurance entities: New India, Oriental, National and United. GIC was then operating in the market as a reinsurer and shareholder of the four direct non-life companies. With the establishment of the regulatory authority IRDAI, GIC Re underwent a major reorganisation in December 2000. The company withdrew from its four subsidiaries and became a national reinsurer under the name of

GIC Re. During 2018–19, GIC Re controlled 81% of turnover of the Indian reinsurance market, amounting to USD6.357bn. Cross-border stakeholders were authorised to operate through their headquarters, regional or liaison offices without any physical presence on the Indian Territory. SCOR SE has been present in the country for nearly 50 years through its Singapore base. Swiss Re, on its part, has been collaborating with Indian insurers for almost a century, while Munich Re has been present in the non-life and life reinsurance market since 1951 and 1957, respectively. These entities underwrote life and non-life risks in India in accordance with the regulations, while being subject to the right of first refusal granted to GIC Re.

The Insurance Laws (Amendment) Act, 2015 opened up the market to competition. Foreign reinsurers were authorised to set up branches within India. By 31 March 2019, the Indian market had ten foreign reinsurers. Premiums earned by all operators of the Indian reinsurance market totalled USD7.85bn as on March 2019, compared to USD5.18bn as at March 2016, an increase of 51%. The opening of the market to foreign groups and the recent regulatory amendments account for this rapid increase in premiums. The new legislation has removed certain constraints related to shareholders' equity, retention rates and ratings, a move that has prompted competition among the various operators. However, the market is still dominated by the national reinsurer GIC Re, which enjoys the right of first refusal on all reinsurance treaties.

Regulatory framework

The IRDAI (Re-insurance) Regulations 2018 (Reinsurance Regulations) were notified in 2018 and came into force on 1 January 2019. The Reinsurance Regulations consolidated the provisions governing the reinsurance business in India into one set of applicable regulations and also introduced new requirements for both life and general reinsurance business.

The Reinsurance Programme is now generally required to include insurance segment-wise information, a change from the previous product-wise requirement. Furthermore, every Indian reinsurer, foreign reinsurance branch (FRB), and IFSC insurance office writing reinsurance business must file a Board-approved underwriting policy, and any subsequent change to it.

Developing IFSC as a reinsurance hub

The IFSC has a great potential to emerge as a reinsurance hub for Asia and Africa and can pose significant competition to Dubai and Singapore. India has all the ingredients to make this happen; it has insurance talent, professionals proficient in English, technology and strong local players such as GIC Re and New India Assurance who have already set up a base in the IFSC, offering tax holiday and low costs of operation.

It is imperative to develop a longevity reinsurance product that caters to the needs of senior citizens. Typically, this would pertain to some extent of reinsurance for annuity products offered by insurance companies. Annuity products come with longevity risks and are currently not reinsured. Reinsuring annuity products will allow insurers to provide more efficient products for seniors.

Risk mitigation

As part of a diversified financial system, a well-developed domestic bond market can help provide the long-term financing needed for sustainable growth. With a view to managing the uncertainty related to future life expectancy, developing a thriving long-term bond market and a long-term derivatives market that are indexed to the longevity of the population becomes imperative. These instruments will help transfer the risk in connection with higher life expectancy to investors in the financial markets, thereby helping in managing risk effectively. Developed markets offer these products for investment.

Under section 27E of the Insurance Act, insurance companies are not permitted to invest funds of policyholders outside India either directly or indirectly. This appears to bar IIOs from investing in the IFSC and overseas.

Hence, it is suggested that the IFSCA may interact with the domestic regulator to exempt IIOs from the above restriction on overseas investment. It is necessary to draft separate investment regulations, offering more flexibility to invest both in India and abroad to get better returns, considering the safety of the sum insured for any claims. Foreign insurers and Indian insurers in the IFSC should be allowed to make investments across the globe with appropriate safeguards.

6.4 PENSION AND ANNUITIES

Current Scenario – India

India operates a fragmented and complex pension system with a wide variety of pension schemes. The basic structure is the following: in the realm of public pensions, there is a limited social safety net for the elderly poor. The old-age provision for civil servants is the most developed part of the system; they are covered by several schemes. Workers in the organised portion of the private sector are covered by mandatory plans operated by the Employees' Provident Fund Organisation, which runs two pension schemes. Employers can decide to opt out of these schemes and establish Exempted Funds. The organised sector also has voluntary pension schemes called superannuation funds. Voluntary private pensions are available for the self-employed and for workers in the organised and unorganised sectors. Assets in the EPF system currently amount to INR 3,490bn, and a yearly growth of at least 14.9% is expected until 2050.

Public pensions comprise a limited safety net for the needy elderly population, two pension schemes for civil servants and the NPS, which replaces the civil servants' schemes for new entrants. In addition, employees in the public and private sectors with more than five years of tenure receive a gratuity upon retirement or if they leave the company before retirement. This gratuity is paid by the employer. It is equivalent to 15 days of final salary for each year of service, and the maximum amount is INR350,000. There are also two major ongoing pilot projects in the realm of pensions. One focuses on better coverage for workers from the unorganised sector, and the other provides 'micro-pensions' to unorganised workers and the rural population.

The National Old Age Pension scheme was introduced in 1995 and is part of the National Social Assistance Programme. It aims to expand the social safety net for the poor. Persons in need over the age of 65 years who are below the poverty line are eligible for this scheme, which provides monthly benefits of INR200, an increase from INR 75 in 2006. It is estimated that around 16m people are entitled to benefits under this scheme.

The Central Civil Service Pension Scheme and the Civil Service Provident Fund are mandatory schemes for civil servants that were established in 1972 and 1981, respectively. Both schemes are now only available to existing Central Government employees. The Civil Service Pension Scheme is an unfunded defined benefit, pay-as-you-go scheme. Employees do not contribute, while the respective employer pays 8.3% and the government adds 1.16%. To qualify for a pension, ten years of service is necessary, and the pensionable age is 58 years. The maximum benefit is 50% of the final salary, and one-third of the pension value may be withdrawn as a lump sum. Pension schemes for the civil servants of State Governments generally follow a similar structure.

The Civil Service Provident Fund is run for employees of the Central Government. While it is designed as a provident fund on a defined contribution basis, it actually operates on a pay-as-you-go basis; current contributions are used for financing the pension benefits of current pensioners. Members have to contribute monthly and can freely decide an amount they would like to contribute between 6% and 100%. The employer does not pay contributions, and benefits are paid as a lump sum after at least 20 years of service. The government credits the accounts with an interest rate that is determined each year; currently, the rate is 8.5%.

The pension system for civil servants delivers a high replacement rate. However, it has been exposed to rapidly rising financial burdens for the government and seems unsustainable in the long run. For this reason, access to the old schemes was closed for new entrants and replaced with a different system.

NPS

The NPS, a defined contribution scheme, was introduced in 2004 and has since covered new entrants to the Central Government's civil service. An exception is armed forces personnel, which is not in the scope of the NPS. Public service employees who worked for the government prior to 2004 have remained in the old system. Employers contribute 14% and employees contribute 10% of salary each, and contributions are placed in individual accounts. The minimum retirement age in the new system is 60 years, and taxation is based on the Exempt – Exempt – Taxable principle, with mandatory annuitisation of 40% of accumulated capital. While the scheme is designed for Central

Government employees, 26 of the 29 State Governments have indicated that they plan to join the scheme. The NPS has a targeted replacement rate of 50% of the final wage.

APY

In India, the absence of a country-wide social security system, aging population and social change on account of breakdown of the traditional family support system are important considerations for introducing pension reform in the unorganised sector. In the public sector, fiscal stress of the defined benefit pension system, applicable to the employees of the Government sector, was the major driving force for pension reforms. Since 2001–02, a number of measures have been adopted by the Government underlining the need for pension reforms for both the Central Government and the unorganised sector for different reasons.

The Atal Pension Yojana (APY) was launched in 2015 to create a universal social security system for all Indians, especially the poor, the under-privileged and the workers in the unorganised sector. The APY is administered by the PFRDA. Any citizen of India can join the APY scheme. APY is open to all bank account holders in the age group of 18 to 40 years, and the contributions differ based on pension amount chosen. Subscribers would receive the guaranteed minimum monthly pension of INR1000 or 2000 or 3000 or 4000 or 5000 at the age of 60 years, depending on the contribution by the subscribers. The monthly pension would be available to the subscriber, and after them, to their spouse. After their death, the pension corpus, as accumulated at age 60 of the subscriber, would be returned to the nominee of the subscriber.

In case of premature death of the subscriber (death before 60 years of age), the spouse of the subscriber can continue contributing to the APY account of the subscriber, for the remaining vesting period, till the original subscriber would have attained the age of 60 years. The minimum pension would be guaranteed by the Government, i.e. if the accumulated corpus based on contributions earns a lower than estimated return on investment and is inadequate to provide the minimum guaranteed pension, the Central Government would fund such inadequacy. Alternatively, if the returns on investment are higher, the subscribers would get enhanced pensionary benefits. Subscribers can make contributions to the APY on monthly, quarterly or half-yearly basis. Subscribers can voluntarily exit from APY subject to certain conditions, on deduction of Government co-contribution and return or interest thereon.

As on 30 November 2020, the APY had a total of approximately 25m subscribers with a total contribution of INR 12,314.18 crores. The assets under management (AUM) stood at INR 14,221.00 crores.

Reverse mortgage

A reverse mortgage is a longevity-linked loan that allows senior citizens to release the equity in their home without meeting any credit or income requirements. As opposed to traditional mortgages, there is no obligation to repay a reverse mortgage loan until the borrower passes away or no longer uses the home as a primary place of residence

The target group for reverse mortgages are ‘house rich, cash poor’ elderly people who want to turn their relative illiquid housing equity into cash.

Among the many initiatives launched by the Government of India to help senior citizens is the scheme of reverse mortgage, introduced by the RBI in 2007, for the benefit of senior citizens owning a house but having inadequate income to meet their needs. A homeowner who is above the age of 60 years is eligible for reverse mortgage loan. It allows them to turn the equity in their home into one lump sum or periodic payments mutually agreed upon by the borrower and the banker. No repayment is required as long as the borrower lives, borrower should pay all the taxes relating to the house and maintain the property as their primary residence.

On death of the home owner, the legal heirs have the choice of keeping or selling the house. If they decide to sell the house, the proceeds of the sale would be used to repay the mortgage, with the remainder going to the heirs.

As per the scheme formulated by the National Housing Bank, the maximum period of the loan period is 15 years. The residual life of the property should be at least 20 years. Where the borrower lives longer than 15 years, periodic payments will not be made by the lender. However, the borrower can continue to occupy the property. From FY2009, the lump sum amount or periodic payments received on reverse mortgage loan will not attract income tax or capital gains tax.

The public pension system has not been able to provide an alternate support to the elderly. This condition leaves the elderly in jeopardy. They face various issues like:

- Outliving their retirement income
- Depending on their children to help pay expenses
- Falling sick with no means to bear the expenses
- Not being able to guarantee an income for their spouse after their death

Reverse mortgage or equity release products attempt to address all these problems. Every Indian, irrespective of their income level, tries to build a home for themselves during their working life. Reverse mortgage will give them an opportunity to generate income from that very home. As the ownership remains with the borrower, they can transfer the home to their successors also if the latter agree to pay the loan amount. Such a product relieves the pressure on the government to provide old age security.

Role of insurers in reverse mortgage

Insurers can play an active role in this segment of business, primarily owing to their better understanding of mortality and longevity trends. Furthermore, reverse mortgage is a long-term product, and insurers, being in the business of offering long-term products, are in a better position to estimate and manage long-term interest rate risks. Banks and insurance companies could market the reverse mortgage product together.

The combined solution of products, if designed properly and offered in an empathetic manner, would help build brand equity for both the lender as well as the insurer in this niche segment, while offering financial security to the elderly. Research on marketing strategies adopted in developed reverse mortgage markets in other countries can help design suitable campaigns in India. Education and counselling about the concept will also help reduce the social and psychological disadvantages. Furthermore, increasing the tenor of the loan from the current 15 years and reducing the eligible age to 50-55+ would also help increase the uptake. Reverse mortgage, if widely available, will encourage more people in their working age, to increase the proportion of their savings invested in housing.

Risks and critique of reverse mortgage

Market development for reverse mortgage in India has been slow. In addition to regulatory uncertainties and a lack of awareness, the cultural norm of bequeathing family wealth to the next generation also limits demand.

A combination of risks and market failures on the supply and demand side constrain the full development of the market. On the supply side, cross-over risk, adverse selection, moral hazard and a lack of risk pooling options reduce lenders' incentives to provide reverse mortgage. Fraud, elderly care and longevity risk, as well as regulatory uncertainty and social insurance risk represent significant constraints on the demand side. Moreover, the legal hassles in both taking possession of the properties and selling these properties in the market make reverse mortgage an unattractive proposition for the lenders, which may lead to its limited offtake.

Recommendations

Reverse mortgage

India's pension policy challenges differ from those of other Asian countries. While most other countries face a severe demographic challenge, Indian demographics will develop more favourably. However, similar to the other countries, India is in the process of restructuring its pension system, particularly to increase the coverage of formal pension systems through NPS and other schemes. The success of the NPS will depend on the acceptance of unorganised sector workers. The issue of how to cover unorganised sector employees is likely to remain high on the agenda in the years to come.

Therefore, developing the reverse mortgage as a pension product jointly between banks and insurers will provide house-rich, cash-poor senior citizens with an alternative. Transfer of property from resident to non-resident IFSC units will also need to be dealt with separately.

Introduce innovative Pension Products for NRIs

Pension and annuities are very important for the silver generation to maintain their standard of living even in these years. The Longevity hub can design innovative pension products to provide a reasonable income till the person is alive. These products can be marketed for NRIs and PIOs all over the world. NRIs from Middle East could be a great market as all of them would come back to India after they complete their active professional life.

Key regulatory and tax enablers

Currently, pension products have commissions up to 2% (single premium) or 7.5% (regular premium). IFSCA should consider bringing them on par with other savings products to make them equally lucrative for distribution.

Currently, as a Point of Presence (PoP), the charge is 0.5% of the contribution received from the subscribers as PoP fees. Recently, IRDAI has allowed PoPs to sign up specific individuals such as life insurance agents and MF agents, which is a positive step and would help in increasing distribution network. This would also be instrumental in increasing the reach of NPS. However, as per the current guidelines, the remuneration to the agents has to be shared from the same PoP fees of 0.5%, which may be unattractive for the agents, and thus, they may not opt for NPS distribution. Additionally, to set up a robust distribution network of individual agents, systems, processes and training infrastructure need to be developed. There should be no cap on Point of Presence fee for policies issued by IFSC insurance entities. This would help in attracting accomplished agents and setting up a robust distribution network.

6.5 Medical tourism

Medical tourism is defined as 'activities related to travel and hosting a foreign tourist who stays at least one night at the destination region for the purpose of maintaining, improving or restoring health through medical intervention'. Such medical interventions may be broadly classified into three types: medical treatment (treatment for curative purpose that may include cardiac surgery, organ transplant, hip and knee replacement etc.); wellness and rejuvenation (offerings focused on rejuvenation or for aesthetic reasons such as cosmetic surgery, stress relief and spas); and alternative cures (access to alternative systems of medicines such as India's offering of AYUSH [Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy]).

Medical tourism is now often referred as Medical Value Travel (MVT) as it captures the patient's healthcare seeking behaviour as well as the wider economic impact of such travel on the nations hosting them.

Healthcare and tourism are the fastest growing industries in the world. MVT is being promoted as a fusion product of these industries. MVT has grown across the globe, and numerous possibilities remain unexplored. The global MVT market size is in the range of USD60–80bn, and some 14m people travel across the borders for medical tourism[19]. India has been ranked 10th in Medical Tourism Index for 2020–21 out of 46 destinations of the world by the Medical Tourism Association.

Over the years, India has grown to become a top-notch destination for MVT because it scores high over a range of factors that determine the overall quality of care. The high-end healthcare system in India is as good as the best in the world. Complex surgical procedures are conducted in a world-class global hospital by acclaimed medical specialists at a much lower cost than in other countries. India has also become a favoured destination for yoga and wellness with its focus on traditional therapies through AYUSH. The number of international patients increased from 4.3 lakhs in 2016 to 7 lakhs[20] in 2019, with estimated market size in the range of USD5–6bn for 2019.

Allowing Indian insurance companies to offer mediclaim policies out of the IFSC for treatment in India, especially to residents of Asian, African and Middle East countries who look at India as a popular destination for medical tourism, will further help boost medical tourism in India.

Offering personal accident cover, travel cover and health insurance to foreign nationals or NRIs travelling to India for treatment will help aid the Medical Tourism industry further in line with the vision of the Government of India.

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[19] As per the draft National Strategy and Roadmap for Medical and Wellness Tourism, Ministry of Tourism, Government of India, June 2021

[20] As per the Ministry of External Affairs, Government of India

7. FINANCIAL INSTITUTIONS

क्षीरार्थिनः किम् करिण्य
(One, who wishes to get milk, should not buy an elephant)

Background

Aging is one of the most acute problems that nations will face, but simultaneously, it will also be one of the most promising opportunities. Institutions will need to keep a sharp vigil at the horizon. Many of these opportunities will not be straight forward. It is said that miners who go deep find the best diamonds. Uncovering some of the opportunities will require insight about the subject. It will require patience and practice. Financial institutions will need to invest their time and commit their resources. They will need to adapt their business models to tap into the new opportunities. Firms that invest upfront in this segment will be able to outperform their peers and grow rapidly.

Opportunities will be undoubtedly many. A high-quality focus on longevity will transform this into reality. The private sector alone may not be able to realise the opportunity. The industry will need to participate and co-create some of these with the Government. Some will need active intervention from Federal and State governments. Quite a few new digital financial services are challenging traditional banks by targeting niche groups of customers. Such groups would include the elderly and aging people and younger people who wish to live longer lives and are planning ahead. The theory is that they stand a better chance of getting people to switch if they aim tailor-made services at groups who feel that they are being under-served.

There are five categories of companies that shall make a large contribution to the development of the Longevity financial institutions industry: banks, asset management firms, insurance, pension funds and capital market firms. The Aging Analytics report 2021 expects that markets will grow at an average rate of 6% during the following years, reaching USD28,532bn by 2025.

7.1 Banking

One such financial institution that will act as a backbone to the theme of Longevity Finance would be the **Banking Industry**. Many existing banks in the past have analysed the implications of longevity and the failure of birth rates to keep up (aging population). People will need to stretch their pensions and savings while spending more on healthcare and worrying about passing on assets to the next generation.

Governments and businesses need to evolve with the needs of the changing population demographics. For instance, traditional banks were not designed for clients who lived for a longer period of time. Even today, only a minimal percentage of bank customers are over the age of 100 years. This demographic is likely to change drastically in the coming years. Banks across the globe will have to come up with novel products relevant to this segment.

Banking industry outlook – Global and India

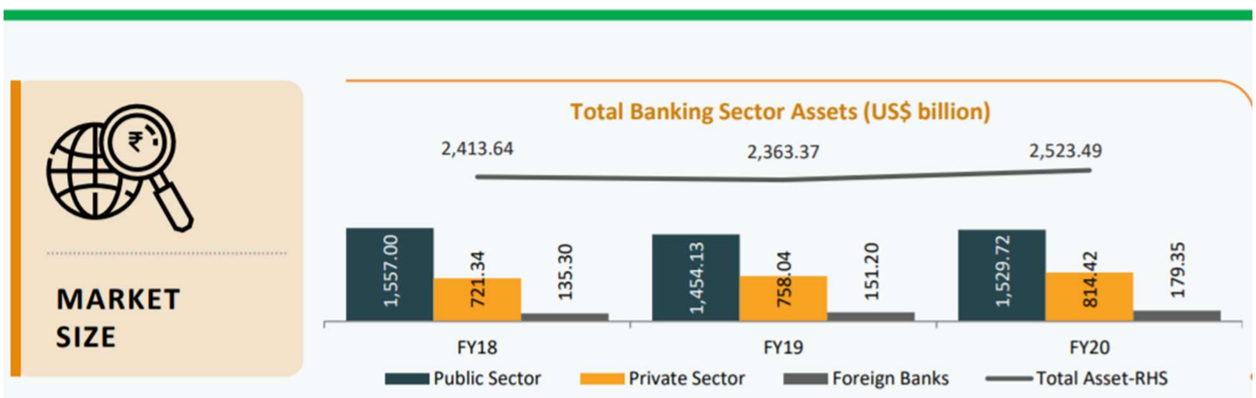
Global Outlook

The market capitalisation of the global banking sector was 7.5 trillion euros in the 2021 Q3 as compared to 5.6 trillion euros in 2016.

The pandemic has posed a set of challenges for the banking industry. Banking is the bloodline for any economy, and it must remain functional for any economy to survive. The industry, similar to many others, has faced severe challenges conducting its day-to-day responsibilities in pursuit of financial goals during the last two years of the pandemic. Banks had to adapt to the situation quickly when customers stayed home. As can be seen from the above figure, the market capitalisation of banks has again reached pre-Covid levels. The world economy appears to be weathering the current crisis better than expected, and the banking system is at least as solid as it was before the pandemic—and much healthier than after the last crisis.

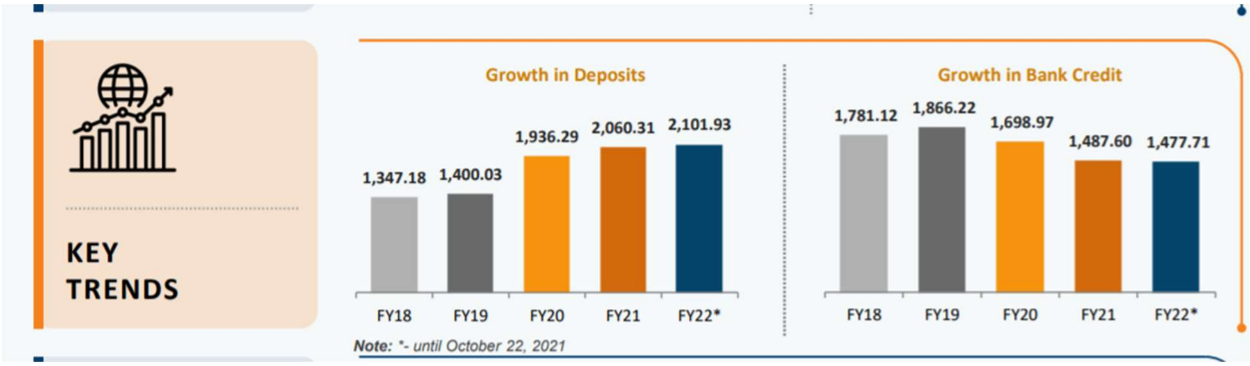
Indian outlook

The banking industry in India has historically been one of the most stable systems, despite global upheavals. The total banking sector assets in India increased to USD2,523.49bn in 2020 from USD2,413.64bn in 2018.



Indian banking has benefited from high savings rates. This is evident from the fact that deposits grew during FY18–22 and reached USD2,101.93bn by FY21. Inversely, there has been a degrowth in bank credit during FY18–22, and the total credit extended by banks up to FY22 is USD1,477.71bn.[21]

[21] IBEF Report September 2021



The Government has consistently strived to promote financial inclusion through various initiatives targeted to bring the country's underbanked population under the banking gamut. The Government of India made the PMJDY scheme an open-ended scheme and added more incentives. The key objective of the PMJDY is the inclusion of financial services (such as bank accounts, insurance, pension and credit facilities). As of 3 November 2021, the number of bank accounts—opened under the government's flagship financial inclusion drive PMJDY—reached INR43.81crore, and deposits in the Jan Dhan bank accounts totalled more than INR1.48trillion (USD19.89bn).[22]

Key focus area for banking sector in longevity

Older people contribute to the Longevity industry as producers, consumers and redistributors of wealth. Banks are designing new products and services keeping in mind younger people, even though older people have more wealth at their disposal, and they are one of the important segments for the banking business. Banks are usually not willing to extend loans to elderly people.

Unclaimed deposits

Media reports indicates that there is an increase in unclaimed deposits in banks and financial institutions on account of cognitive disability of the elderly people. In India itself, it is estimated that more than INR82bn of investor wealth is lying unclaimed in forgotten and lost investments. There are unclaimed deposits languishing in dormant bank

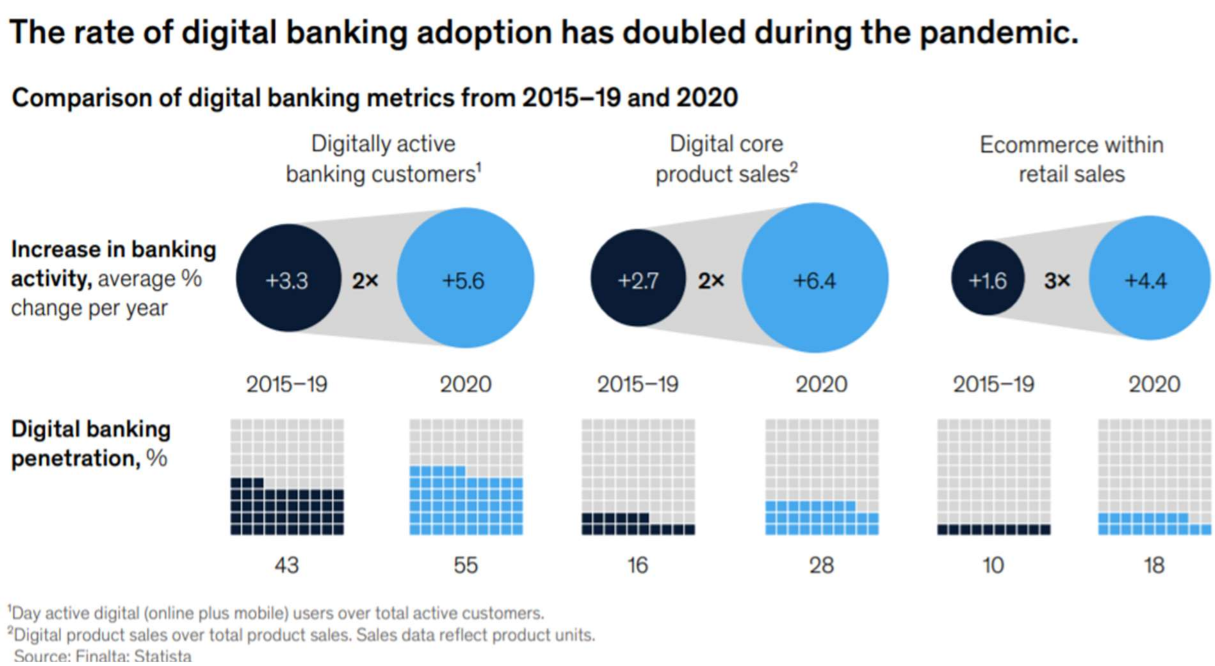
[22] Source: IBEF Report – September 2021

accounts, maturity proceeds of policies idling in insurance companies and even the life savings of individuals locked up in inactive PF accounts.[23]

As people age, they face limitations in mental functioning and memory loss. Diseases such as Alzheimer's and dementia lead to forgetfulness and memory loss. They may not be able to recollect banks and account numbers where money is deposited, leading to a rise in unclaimed deposits with the banks.

Digital banking

Banks across globe have started closing their physical branches and accelerated the adoption of online services. During the pandemic, the use of Internet banking shot up by 30%. Customers are increasingly adopting online banking. In the US alone, the share of consumers using two or more digital payments methods rose from 45% in 2019 to 58% in 2020.



India has also been one of the leading countries to adopt digital banking. In fact, India is the world's largest market for Android-based mobile lending apps, accounting for

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[23] https://economictimes.indiatimes.com/wealth/invest/rs-82000-cr-lying-in-unclaimed-bank-a/cs-life-insurance-mutual-funds-pf-how-to-get-your-money-back/articleshow/84089095.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

approximately 82% of all online lenders worldwide. According to a study conducted by CloudSEK, India currently has 887 active lending apps. India's digital lending stood at USD110bn in FY19. Digital lending to micro, small and medium enterprises in India is expected to reach USD100bn by 2023.

Access to the banking system has improved over the years due to persistent effort to promote banking technology and promote expansion in non-metropolitan regions. To improve infrastructure in villages, 204,000 point of sale terminals have been sanctioned from the Financial Inclusion Fund by the National Bank for Agriculture & Rural Development.

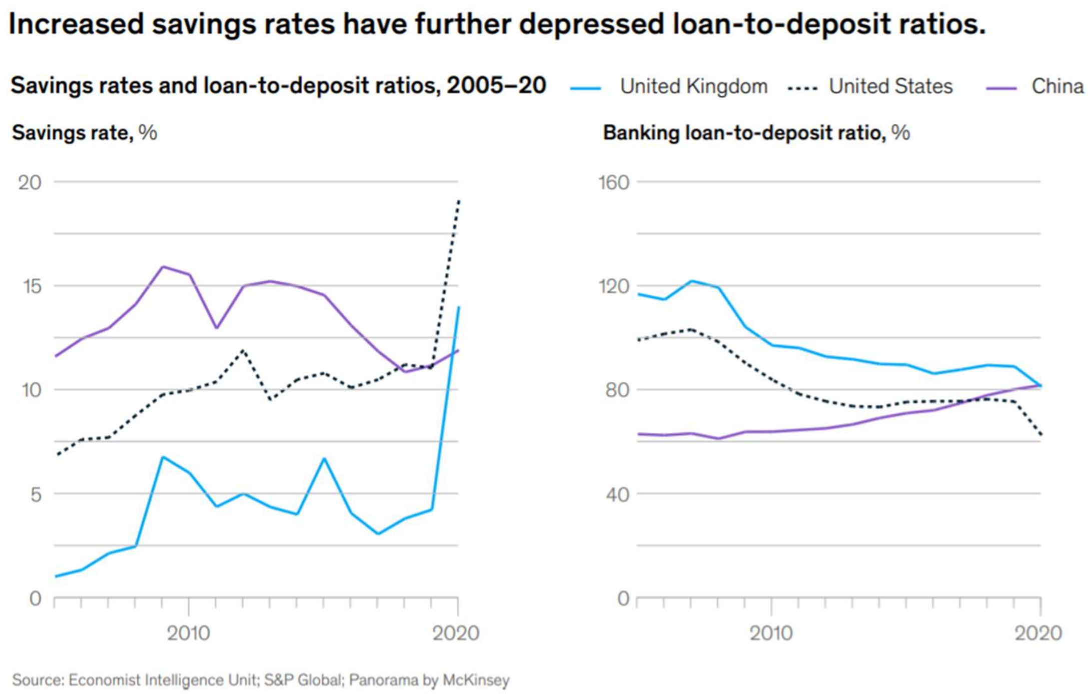
While the entire banking industry is largely focusing on digital banking, which focuses on the youth, it has become increasingly difficult for elderly people to adopt to these current ways of digital banking. The need for customer IDs and usernames that are different from their real names, filling in captcha codes, two-factor authentication, one-time telephone passwords, frequent password changes, eight-digit passwords that use special characters, image identification, ATM PINs and debit card grid numbers make it very complicated for the elderly to migrate to digital banking.

Cyber frauds have become a norm in today's digital world. Some of the common types of fraud include phishing scams, anti-virus software scams, lottery scams, e-wallet scams, work-from-home scam, etc. It is not a million-dollar guess that older people are go-to targets for these fraudsters.

As Bill Gates rightly said, ***'Banking is necessary, Banks are not'.*** While banks are moving towards complete digitalisation, this will be the moto for future generations, including the silver tsunami.

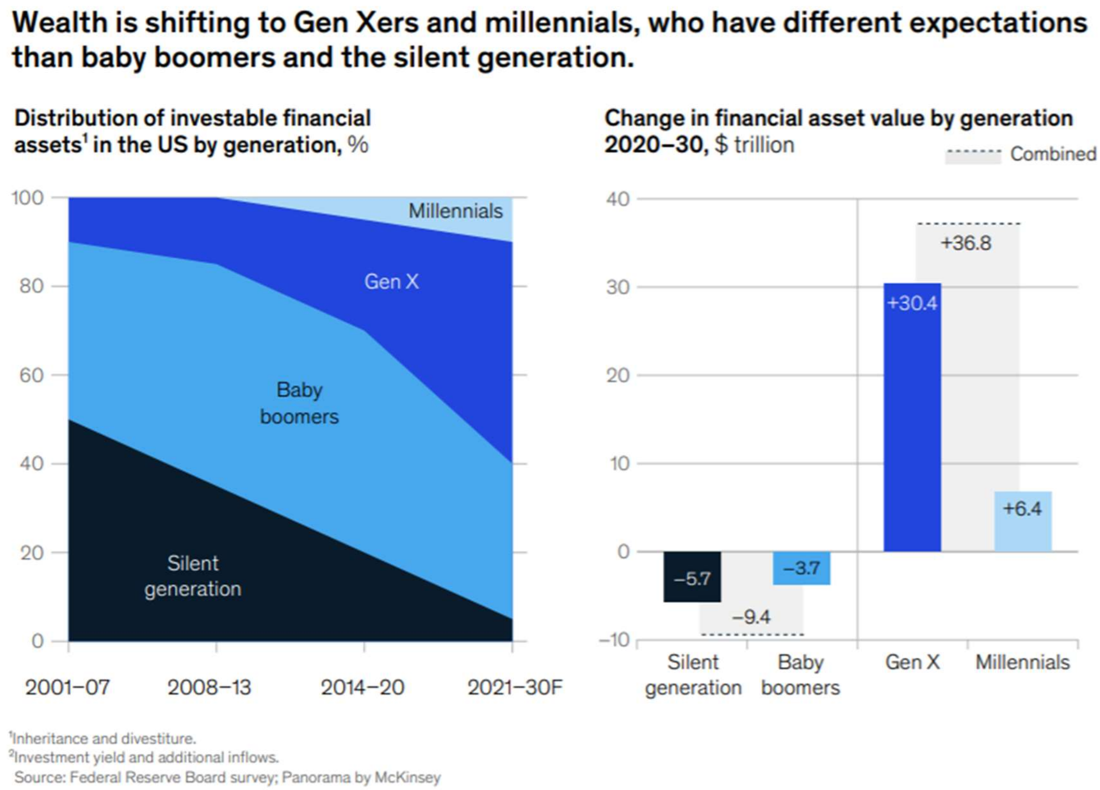
Loan-to-deposit ratio and personal savings

Despite the loan growth in 2020 and the first half of 2021, loan-to-deposit (LTD) ratios remain at historical lows across the world. In April 2020, personal savings in the US spiked to 33.7%, the highest rate ever recorded, and since 2019, US household savings have more than doubled, to USD3trillion. In the US and the UK, savings increased, and LTD ratios declined[24].



A big part of these savings is in the hands of baby boomers (people born between 1945 and 1964). In the US, it is estimated that 50% of total personal financial assets are held by baby boomers; however, in the next ten years, up to USD9.4trillion will change hands as boomers and members of the 'silent generation' (born between 1928 and 1945) pass their wealth on to spouses and children.

[24]Mckinsey global-banking-annual-review-2021 report



This massive transfer can also offer banks an opportunity to convert cash into investment products.

Key opportunities in banking sector on account of longevity

Global banks currently focus on longevity

One company that has begun the process of integrating the longevity economy is the financial firm Merrill Lynch, an American investment management and wealth management division of Bank of America, which has invested deeply in research to understand the longevity market and rolled out programs and products that address the needs of an older demographic. Their programs cover seven major areas in which life priorities change during retirement: Family, work, health, home, giving, leisure, and, of course, finances. This has led to improved customer satisfaction, acquisition and retention. Many more such companies will need to integrate longevity into their strategies and soon. Other banks have started realising that focusing on longevity is the need of the hour. Many banks are taking an active interest in the longevity sector and introducing different products to cater to longevity.[25]

Bank of America Merrill Lynch introduces initiative to empower companies with a deeper understanding of the longevity revolution and its impact on employees.
Goldman Sachs Group, Inc. launches tradeable index for longevity and mortality risks.
JPMorgan Chase & Co. has created an international index designed to benchmark and trade longevity risk.
Deutsche Bank AG has entered into a longevity swap with the trustees of the Rolls-Royce Pension Fund. Deutsche Bank will hedge the longevity exposures of the scheme under the agreement.

Opportunities for Banking sector in IFSC

The low-hanging fruit for banks would be to design digital products or services that would help elderly people overcome the problems of digital banking. Some of them would be AgeTech Banking platform, Robo-advisor, insurance against online frauds etc.

Robo advisors are a class of financial advisers that provide financial advice or investment management online with moderate to minimal human intervention. Robo advisors provide standardised and unbiased solutions. Currently, mis-selling by agents and relationship managers is common. Products are offered by these agents and relationship managers based on the commission they earned rather than by looking at the risk profile of the customer. Robo advisor removes the human element and advises strictly based on the customers' risk profile.

Older people are more susceptible to online frauds. Insurance companies may offer group covers to banks against such online frauds. This would help banks in attracting more customers.

[25] https://hbr.org/2019/03/how-merrill-lynch-is-planning-for-its-customers-to-live-to-100

Another interesting product that banks could consider is reverse mortgage. Real estate (i.e., land and building) is one of the biggest investments for many individuals. Land and building are non-productive and illiquid assets. Banks can extend mortgage to elderly people against land and building. Such mortgage can be a lump sum amount or monthly withdrawal depending upon the requirement of the consumers. Banks can recover the loan amount by selling the property.

Individuals need to plan their retirement from an early age. Banks can help people create a corpus for their retirement. The current set of products such as PPF, PF and pension do not effectively cater to all the needs of the Individual. New or novel products will be welcomed.

IBUs can issue instruments representing foreign currency deposit in the form of promissory notes, thereby creating an asset monetisation opportunity in the bond market, e.g., Resurgent India Bonds (RIBs). RIBs are bank instruments issued by SBI, representing foreign currency deposit in the form of promissory notes.

It is also observed that several SMEs are going out of business as the promoters have no successors who are interested in continuing the business. Similarly, banks are also not keen to extend the credit to these businesses as they are unable to monitor increased credit risk. Banks usually reduce the risk by requiring owner-managers to personally guarantee SME loans. Successors, if any, may not be willing to make such guarantees. However, with the advent of the Internet, the digitisation of transactions and payments, and improvements in AI, the cost of monitoring and predicting SME cash flows could be reduced. Banks can help solve succession problems by relying more on monitoring than on personal guarantees.

Another interesting offering that banks could consider is with respect to succession planning. With increase in financial literacy, several individuals will seek assistance in the preparation and registration of deeds and wills. They will need a will to be drafted in a manner that ensures that their assets are bequeath to the intended recipient. The need for a professional trustee will also increase. Banks could act as the trustee to ensure that transactions are handled in accordance with documentation. Individuals will also need someone whom they can trust for safe custody as well as execution of the will.

Apart from above, banks can also act as securities intermediary, verification agent and document custodian, escrow agent (i.e. facilitating policy transfers between buyers and sellers in accordance with the escrow agreement) and policies administrator.

Recommendations

Permit IBUs to cater to Indian residents above the age of 60 years

Permit IBUs to cater via insurance companies to provide retirement solutions and all longevity-related services (as discussed in above para) to Indian residents as well as non-residents above the age of 60 years.

Increase in LRS limit

Under the LRS, all resident individuals, including minors, are allowed to freely remit up to USD250,000 per FY (April–March) for any permissible current or capital account transaction.

Considering thus, IBUs should be allowed to offer longevity solutions to Indian residents, and the yearly limit of USD250,000 should be increased to USD500,000 to enable Indian residents to invest in the retirement products offered by IBUs.

Furthermore, an RBI circular provides that the amount needs to send bank to Indian account if it is lying Idle in IFSC bank account for 15 days. This requirement to repatriate idle funds back to India should be done away with, as it puts IFSC on a lower pedestal compared to other offshore jurisdictions.

7.2 CAPITAL MARKETS

The longevity strategy is sized to include all of the assets and resources the family plans to utilise for the remainder of their lifetimes, which provides a clear picture of what future spending objectives will cost. It is also managed with that goal in mind—a well-diversified portfolio, but with an eye to inflation and managing downside risk. If people outlive the saved capital, they will have to reduce their standard of living sooner or later.

Longevity risk and related capital market solutions have grown increasingly important in recent years, both in academic research and in the markets we refer to as the life market, i.e. the capital market that trades longevity-linked assets and liabilities. Mortality improvements worldwide are putting more and more pressure on governments, pension funds, life insurance companies as well as individuals, to deal with the longevity risk they face. Simultaneously, capital markets can, in principle, provide vehicles to hedge longevity risk effectively and transfer the risk from those unwilling or unable to manage it to those willing to invest in this risk in exchange for appropriate risk-adjusted returns or to those who have a counterpoising risk that longevity risk can hedge, e.g. life offices and reinsurers with mortality risk on their books. While many new investment products have been created both by the insurance and reinsurance industry as well as by capital markets, there is still a long way to go.

Capital market outlook – Global and India

Global outlook

Analysts expected global wealth to contract, and perhaps severely. However, instead of shrinking, global financial wealth soared, rising 8.3% over the course of 2020 to reach an all-time high of USD250trillion.[26]

This boom can be attributed to net new savings and strong stock market performance fuelled by highly supportive central banks. Cash and deposits grew by 10.6% over the previous year's numbers, marking the largest annual increase in 20 years. Markets shrugged off early jitters and sent many indices and equities to record highs by the year's end.

Flush with cash and encouraged by the prospect of robust returns, individuals directed more wealth into equities and investment funds and away from lower-yielding debt securities. Many also embraced alternative investments such as private equity, structured debt and real estate in the quest for higher yields.

The outstanding value of global bond markets increased by 16.5% to USD123.5trillion in 2020, while global long-term bond issuance increased by 19.9% to USD27.3trillion.

Global equity market capitalisation increased by 18.2% year-over-year to USD105.8trillion in 2020, while global equity issuance decreased by 52.9% to USD826.8bn. Total global financial wealth reached a record high in 2020 of

[26] Global Wealth Report 2021, BCG, 2021

USD250trillion. Over the next five years, North America and Asia (excluding Japan) will be the leading financial wealth generators in absolute terms, followed by Western Europe (See Exhibit 1 below.) Together, these three regions will account for 87% of new financial wealth growth worldwide between now and 2025. Of the USD65trillion in global financial wealth that BCG expects to see generated over this period, 25trillion will come from North America, USD22trillion from Asia and USD10trillion from Western Europe. The remaining regions of the world will have only a marginal impact on new wealth generation, particularly when viewed individually.[27]

India outlook[28]

There has been significant expansion in the size of the equity market in India. India is currently the seventh largest equity market by capitalisation among major markets and regions (including counting the Euro area and Middle East as regions) with about USD3.5trillion market cap. Goldman Sachs[29] expects India's equity market cap to increase significantly over the next two to three years and cross USD5trillion by 2024. Relative to other markets, the estimates suggest that India will likely surpass the UK and the Middle East to become the fifth largest market in the next two years.

This will also likely be the fastest addition of a trillion-US dollar market cap for India. India's market cap accrued from USD1trillion to USD2trillion in about ten years (from 2007 to 2017) and the next trillion from USD2trillion to USD3trillion in about four years (2017 to 2021). As per estimates, the addition of the next trillion US-dollar market cap over the next two years is forecasted.

India's share of global market cap and index weighting will also rise. India's share in the global market cap is also expected to rise from the current 2.8% to 3.4% in two years and 3.7% over the next five years.

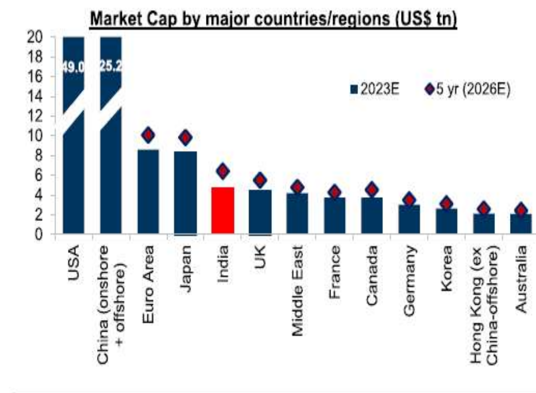
[27] Global Wealth Report 2021, BCG, 2021

[28] GLOBAL STRATEGY PAPER NO. 48, Goldman Sachs, 2021

[29] https://www.bloomberg.com/news/articles/2021-09-20/goldman-sees-indian-share-market-rising-to-world-s-fifth-biggest

India’s share in global indices may rise from 1.4% in MSCI AC World Index currently to 2% by 2023 and 2.5% in five years. Its weight in the MSCI EM index may rise from approximately 12% currently to 14% by 2023 and over 15% in five years.

Source: Bloomberg, Goldman Sachs Global Investment Research



Source: Bloomberg, Goldman Sachs Global Investment Research

Key focus area for capital market industry

The evolution of financial market instruments has brought a number of new risk-diversification options to the attention of investors. The most notable has been the development in credit markets, where a multitude of products have been introduced during the last decades. This reflects, among other things, an interest in developing products that can help financial institutions hedge against various types of risk. Experience from other markets has generated an interest in developing capital market products that can also help diversify longevity risk.

Longevity bonds

Issuance of longevity bonds has so far been limited globally as well as in India. There is a need to popularise such bonds in India and make them available on the go.

A few reinsurance companies have also used capital market instruments to transfer risk from pension and life insurance companies to investors in financial markets. Anecdotal evidence suggests that several investment banks have been active in setting up similar structures, but these transactions have been established on the basis of private placements.

In November 2004, the European Investment Bank announced plans to issue the first longevity bond that would offer coverage for UK pension schemes and life insurers with exposure to longevity risk for the male population of England and Wales. The initial size of the note was GBP540m, and the maturity of the bond would be 25 years.

Specialised financial products

Specialised stock exchanges and customised financial products are nothing new. Currently, for example, investors can dig into about 50 major commodity markets worldwide. NASDAQ fits that profile as well; it was created as a stock exchange for IT companies and is currently the home of tech-oriented stocks. Furthermore, another example would be Torus Kling Blockchain IFSC, which has signed a memorandum of understanding with India INX exchange to launch India's first Bitcoin and Ethereum futures ETFs on the GIFT IFSC.

Digitalisation

The digitalisation in capital market for the elderly will contribute in a variety of ways: (1) enhance the understanding of such customer experience (2) improve the efficiency and effectiveness of their processes, (3) increase the awareness of the cultural value of the firms' heritage and (4) allow the development of cutting-edge design skills by experimenting.

Key opportunities for capital market industry in IFSC

Issuance of longevity bonds on IFSC stock exchanges would not only attract the attention of resident Indians but also global investors, particularly in Asian countries. Such issuance of bonds may be the first of its kind. Global as well as Indian pension funds can hedge their risk by issuing their longevity bonds on the IFSC exchanges. The issuance of longevity-linked bonds could provide a liquid longevity instrument. In principle, the issuance of such bonds could increase the efficiency of the underlying longevity market, which may lead to a decrease in the frictional costs of private sector provision of lifetime annuities and ultimately facilitate the transfer of longevity risk to the private sector from the pension funds.

Another aspect that the IFSCA should focus on would be creating a specialised platform for companies concentrating on longevity. Specialised platform / Longevity index typically form when an industry grows by a sufficient amount, and with the Longevity industry in its present state of growth, a Longevity stock exchange now appears to have potential in the long term. Setting up a Longevity stock exchange would require the public listing of hundreds of Longevity-focused companies to create good enough diversity and potential volume for trading.

This would provide increased liquidity, which in turn would enable greater flexibility and greater leverage for the further growth of the companies listed on the exchange, and as such, greater opportunities for the advancement of the Longevity industry as a whole globally. Thereafter, the more advances there are in longevity, the more even the most conservative investors will want to invest.

Second, the more innovative method of neutralising these disproportions and inefficiencies would be the establishment of a specialised stock exchange for longevity start-ups. Such an entity would be the first of its kind in the world, and if it is supported by key government officials and integrated with the longevity start-ups ecosystem, it could easily secure the position as a leading, progressive Longevity Finance Hub. Recent successful IPOs such as Zomato and NYKA are prime example of start-ups creating value and wealth for investors.

It would also benefit the regional financial markets, enabling a multiplicative leap in the development of the host nation's health care, preventive medicine, precision health, longevity and financial industries. This specialised stock exchange focused on longevity companies should aim to make IPOs for several longevity start-ups within several years of its launch, launch specialised financial derivatives with ties to the nation's industry, and subsequently launch several specialised longevity ETFs.

The ultimate goal should be the deployment of a Longevity industry index (similar to the NASDAQ-Composite, which serves as an indicator of expectations on the growth of the USA tech industry).

The first nation to establish a specialised Longevity stock exchange will have effectively created something resembling a perpetual motion machine for the further growth of its national Longevity industry, having built an engine for providing its companies with sufficient investment and accelerating the market-readiness of their technologies, products and services.

The nation that establishes marketplaces for both shares in publicly traded longevity companies and for financial instruments and derivatives built as a second layer upon its Longevity industry would be capable of attracting several trillions of potential wealth that is currently inaccessible and locked away.

To take this concept even further, if that nation were to then build a Longevity index as a second layer on top of this Longevity stock exchange, to create the analogue of a NASDAQ composite for its HealthTech, preventive medicine, precision health and Longevity industries, this could become one of the most predictable, stably growing and rapidly growing investment opportunities, capable of attracting trillions of pounds worth of lazy money from conservative investors. Furthermore, because longevity is a very much a science and technology-driven industry, it is much, much more simply predictable than, for example, the larger tech market or the real-estate market.

In March 2021, Hartford Funds announced the launch of a new ETF, Hartford Longevity Economy ETF (NYSE: HLGE), which would seek to provide investment results that correspond to the total return performance of the Hartford Longevity Economy Index (LHLGEX). LHLGEX is designed to generate attractive risk-adjusted returns by investing in companies that comprise industries reflecting certain themes that are expected to benefit from the growth of the aging population and the substantial buying power it represents.

HLGE is designed to invest in companies included within industries that provide goods and services that reflect longevity economy themes, including aging in place and home modification, working longer, performance health and comfort, maintaining social connections, financial freedom, staying mobile, human enhancement and leisure, and entertainment. HLGE is designed to address risks and opportunities within the US longevity economy universe by selecting equity securities of companies exhibiting a favourable combination of priority multifactor characteristics, including valuation, momentum and quality.

Additionally, some of other ETFs include Global X Longevity Thematic ETF, CI Global Longevity Economy Fund and the Long-Term Care ETF. Axa IM, the global investment manager, also turned a health care fund into the Axa WF Framlington Longevity Economy fund.

As the capital market industry is on the verge on digitisation, one should also look at digital brokers and small case investments. Digital brokers, online platforms and software tools that put stock market information and the possibility of investing within anyone's reach including the elders. Additionally, the creation of such small case investment products designed for investors expecting to live 100 years and beyond may create a niche product line for the silver tsunami to invest in.

Recommendations

Ease of customer onboarding and KYC

It is imperative that IFSC adopts a contemporary KYC verification norm through electronic means, with minimum documents which can also be self-certified. They should be renewed automatically in case client confirms that there is no change. Request for KYC updation should be made only in case where there is a change in information provided earlier. Investors should also be given timely reminders for updation and renewal when required. Reasonable time should be provided for compliance. There should be a central KYC repository which financial institutions can access for updating the individual's KYC in their record.

Framework for issue of Longevity Bonds

IFSCA may create framework for primary issuance of Longevity Bonds on IFSC stock exchanges._The issuance of such bonds could increase the efficiency of the underlying longevity market, which may lead to a decrease in the frictional costs of private sector. It will also enable provision of lifetime annuities to the elderly and ultimately facilitate diversification of longevity risk of the stakeholders.

Framework for establishment of a specialised platform

The IFSCA should focus on establishment of specialised platform on IFSC exchanges for longevity start-ups/ creating index to represent the market specialisation of companies focusing on Longevity.

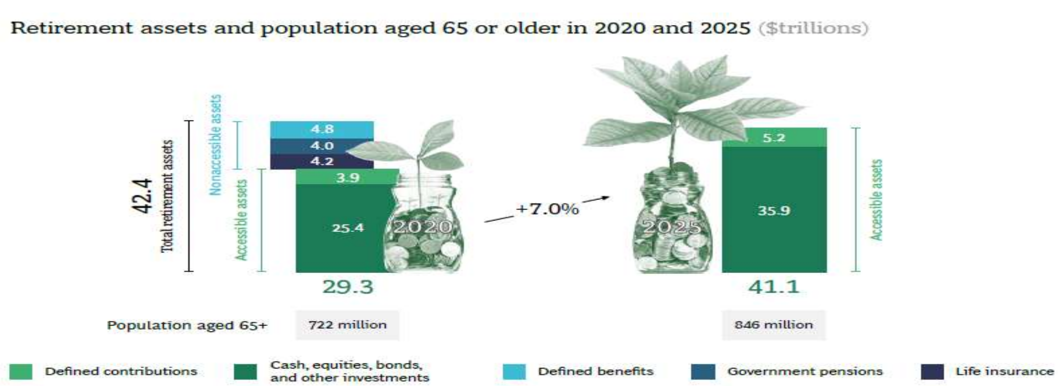
Dedicated eco-system for longevity products

There is a need for developing the entire ecosystem, including brokers, depositories, banks and ancillary service providers having separate business unit focusing on Longevity. There is also a need of attracting high-skilled finance professionals in the IFSC.

7.3 ASSET AND WEALTH MANAGEMENT

By 2050, 1.5bn people globally—approximately one in every six individuals—will be at least 65 years old. That is twice the size of today's retiree population, and it represents an enormous wellspring of wealth. Individuals in this age band today own USD29.3trillion in financial assets. Over the next five years, that figure will grow at a compound annual rate of close to 7%, which means that wealth managers globally will be able to target close to USD41.1trillion in financial wealth by 2025.

The rise in the volume of investable assets that has occurred over the last two or three decades is set to continue to increase in the future, and investable assets are expected to be significantly higher in 2025 than today.



<u>Asset and wealth management outlook – Global and India</u>

Global Outlook

The asset management industry has emerged from the global pandemic in a position of strength, with assets growing by 11% in 2020 to end the year at USD103trillion. Retail portfolios, representing 41% of global assets at USD42trillion, grew by 11% in 2020, while institutional investments grew at a similar pace to reach USD61trillion, or 59% of the global market.

Retail investors were the main driver of net inflow, contributing 4.4% of net new capital in 2020, which is twice the size of the contribution made by institutional investors (2.2%)[30].

Currently, Singapore, Hong Kong and Dubai are the main regional asset management hubs with Japan, Shanghai and Shenzhen also contributing to play a important role.

The rising importance of SAAAME

AUM in the South America, Asia, Africa, Middle East (SAAAME) economies are set to grow faster than in the developed world in the years leading up to 2025, creating new pools of assets that can potentially be tapped by the asset management industry. However, the majority of assets will still be concentrated in the US and Europe.

In 2010, Asia ex-Japan's weightage in the MSCI World Index was only 9%, while its total contribution to GDP approximated 18%[31]. As Asia ex-Japan's contribution increases, it becomes reflected in the MSCI World Index and will result in new and substantial money flows into the capital markets of the East. These flows will be considerably enhanced by the likely internationalisation of the Chinese renminbi. This will open up what will eventually become one of the world's significant asset management markets.

Role of pension funds and sovereign wealth funds

In 2012, the asset management industry managed 36.5% of assets held by pension funds, sovereign wealth funds, insurance companies, mass affluent and high-net-worth individuals (HNWIs)[32].

[30] Global Asset Management 2021 – BCG Report
[31] PwC Asset management report
[32] PwC Analysis in Asset Management 2020 Report

Clients	2004	2007	2012	2020
Pension funds	21.3	29.4	33.9	56.5
Insurance companies	17.7	21.2	24.1	35.1
Sovereign Wealth Funds (SWF)	1.4	3.3	5.2	8.9
HNWI	37.9	50.1	52.4	76.9
Mass affluent	42.1	55.8	59.5	100.4

Source: PwC analysis. Past data based on Credit Suisse Global Wealth Data Book, SWF Institute, The City UK, OECD and Insurance Europe.
Note: Differences in sums are due to rounding. The sum of AuM by clients does not equal the sum of AuM by products shown above due to double counting. The sum of the assets of all clients will also include double counting as a part of the assets of Mass affluent and HNWI will be invested with insurance companies and pension funds.

Given that the asset management industry is successful in penetrating the assets of these clients, it would be able increase their share of managed assets by 10% to a level of 46.5%, which would equal USD130trillion in global AUM.

Indian outlook

India is expected to be the third largest economy in the world by close of the third decade of the 21st century, next to only US and China. The MF industry forms the lion's share of the entire asset management industry in India and has come a long way today since its humble beginnings over more than 50 years back.

India provides huge untapped potential and opportunity for MFs to be a great vehicle to funnel household savings into productive investments. The asset management Industry saw exponential growth in the retail base, with the industry adding over four crore new accounts and AUM more than doubling from around INR11trillion to over INR25trillion.

Another notable trend has been the growing investor participation from tier II and tier III towns, which now contribute approximately 23% of the industry's individual investor assets.

Key focus areas for wealth and asset management industry

Wealth management services in India is still at an initial stage. Traditionally, wealth management companies have focused on HNIs and ultra-high-net-worth individuals (UHNWIs). The HNI and UHNWI groups in India have witnessed significant growth in the last decade, and this is a demand driver for wealth management services.

	2015	2020	2025	Growth Forecast (2020–25)
HNI population	2.00 lakh	3.50 lakh	6.11 lakh	75%
UNHWI population	6,020	6,884	11,198	63%

Source: Knight Frank and Capegemini World Wealth Report

With the rise in the number of nuclear and small families and paradigm shift in the lifestyle of millennials, the older generation is becoming aware of the need to rely on their own wealth instead of their children. People want to be able to enjoy the finer things in life and want to save for luxuries. This has spurred the demand for wealth managers.

Traditional asset classes such as fixed deposits and bonds are offering all-time low returns and less protection from inflation. This has resulted in a dire need for alternative asset classes such as alternative investment fund, private equity, venture capital, REIT, derivatives and cryptocurrency. These alternative classes offer significantly better returns.

Longevity hedge fund

Asset managers could consider introducing long-short hedge or hybrid hedge funds focused specifically on the Longevity industry and companies.

Furthermore, another focus area could be Longevity VC fund focused on longevity start-ups with deep scientific expertise in geroscience.

Key opportunities in asset management sector on account of longevity

Similar to current products offered in India, asset managers can offer MFs, ETFs and Alternative Investment Funds (AIFs) investing in the companies focusing on longevity. While SEBI has already issued operating guidelines for AIFs, to setup a unit in the IFSC, the operating guidelines for MFs and ETFs to operate in the IFSC are awaited. With the

IFSCA now assuming power, it should issue operating guidelines for MFs to operate in the IFSC. The IFSCA should aim to benchmark these guidelines with the best-in-class practices adopted by various other International Financial Centres.

For GIFT to be competitive globally, it needs to incorporate the best-in-class business environment. To provide a few examples, Delaware is known for its operational efficiency and turnkey solutions for funds in the area of operations, accounting and compliance, and Bahamas is known for its quick and low cost set-up process and as a low tax jurisdiction. Companies in the Dubai International Financial Centre (DIFC) are able to set up and complete licensing process within two days. GIFT needs to provide best-in-class infrastructure comparable with these jurisdictions. The laws applicable to such investors should be in line with global offshore jurisdictions. For example, the DIFC has made structuring and financing faster, economical and more flexible. Under a newly introduced regime, structures such as Intermediate Special Purpose Vehicles and Special Purpose Companies allows certain firms to establish themselves in the DIFC with more flexible office requirements.

Mezzanine structures is a good alternative to effectively manage the risk and gain better returns on investment. Current structures do not allow risk layering. Mezzanine capital enables riskier tranches to earn higher rate of return as compared to safer tranches. This, in turn, is likely to increase liquidity in lower-rated bonds.

Longevity products in the future need to be hyper-personalised, built to scale and offered at low cost. Such innovations are not possible without collecting and understanding data. Setting up data centres and attracting global data science expertise should be encouraged. Data centres can monetise through listing their REITs and InvITs on the IFSC stock exchange.

If a framework is established for low-cost incorporation, easy setup and single window clearance of pension and longevity equity funds, it will spark global Interest and capital allocations to the IFSC. Product ideas for the IFSC include i) USD/ EUR/ CHF denominated products for global clientele, ii) listing and trading of long-term bond ETFs (example: BlackRock’s Shares 20+ Year Treasury Bond ETF (Nasdaq: TLT), and iii) multi-asset funds and target funds where asset allocation is predefined by a target retirement date.

GIFT should be established as the preferred location for setting up and operating such structures. A USD-denominated platform for monetising and raising capital should be set up and an over-the-counter or unlisted market for such instruments should be created, thereby eliminating the mark to marking of such instruments in the investor’s book. Based on past interactions with pension funds investing in infrastructure, these funds usually invest in long-term yield vehicles and hence prefer unlisted InvITs as they do not need to mark to market their investments as often as listed InvITs .

Emerging themes in longevity are likely to be med-tech, health-tech and bio-tech as immense opportunities are available in this space.

Biotechnology involves understanding how living organisms function at the molecular level, so it combines a number of disciplines including biology, physics, chemistry, mathematics, science and technology.
Medtech is a broad sector that encompasses the use of any technologies that can save or improve the quality of life of individuals suffering from a multitude of health conditions. Simply put, med-tech may range from familiar objects such as syringes and hearing aids to more sophisticated devices such as medical robots, body scanners, intraocular lens and replacement joints for knees and hips.
Healthcare technology, commonly referred to as ‘HealthTech’, refers to the use of technologies developed for the purpose of improving any and all aspects of the healthcare system. The uses for technology in the healthcare industry are seemingly endless. Technology is being implemented in everything, ranging from hospital administrative processes to cancer research and surgery, to

improve efficiency throughout the industry and make the patient experience as painless as possible.

Recommendations

Permit products to enable layering of Risk

IFSCA should allow layering of the risk and reward so that investment demand from conservative to aggressive investors can be satisfied. This can be done through senior, mezzanine and junior risk return trade off in the instrument per se or through different class of units in the investment vehicle. The compartmentalisation of risk/ reward will ensure wider issuance of securities and wider participation from investors. Our domestic market lacks this layering and hence GIFT city can attract wider participation of issuer as well as investor.

Permit offering of asset allocator products

The asset manager should be allowed to allocate funds across all asset classes which would include securities, commodities, futures & options, private equity and any new convention and asset class in line with innovation and evolution of the longevity finance space.

Reverse Mortgage/ Entrepreneur loans for senior citizens (via whole life term policies/ stock/ bond portfolio or reverse mortgages)

Not all senior citizens may be looking to retire - a few of them may have business ideas and may want to attempt running such a business. However, at their age, no financial institution will be willing to loan them money to start a business, especially without collateral. In such a scenario, it may be beneficial if senior citizens are allowed to monetize an asset of their choice. It could be a physical asset like a house which they could reverse mortgage, or a financial asset like stock/bond portfolio/whole-life term plan which they could assign to a financial institution.

Reverse Mortgage concept in other assets like Stock/Bond portfolio/ whole life term policies) should be developed. This is relatively new concept and may work on a portfolio of many investors on a pool basis. This will provide much needed liquidity to the senior citizens and also attract investors looking for a longer term assets through regular investment.

Creating a strong global trustee system

The IFSC platform must attract globally well-reputed trustee companies. Such trustees would increase foreign investor confidence in GIFT products. These trustees must be empowered with the requisite powers to enforce the various agreements and contracts.

Monetise assets for community houses, condo houses and life science parks

Asset monetisation is globally a widely used business practice. Asset monetisation for community houses, condo houses and life science parks must be encouraged from the IFSC. This will tap institutional investments and long-term stable capital into mature assets.

8. PERIPHERIAL ECOSYSTEM FOR LONGEVITY FINANCE

संहतिः कार्यसाधिका

The group can accomplish great work

A business ecosystem is a purposeful business arrangement between two or more entities (the members) to create and share in collective value for a common set of customers. Every business ecosystem has participants, and at least one member acts as the orchestrator of the participants. All members in a business ecosystem, whether orchestrators or participants, have their brands present in the value propositions[33].

It is important to take various measures and devise outreach programs to generate awareness around longevity and ensure that there is sufficient skill development and capacity building around the subject. It is important to understand that skill development is not mere financial literacy. Skill development aims not only to help in developing and understanding new initiatives but also the execution of existing and planned initiatives in the longevity space and therefore much wider and deeper than financial literacy.

8.1 Awareness, Education And Skill Development

One of the most critical issues we face in respect of longevity and its development as a field of its own is the lack of awareness of the issues, challenges and importance of longevity. Awareness, education and skill development in longevity should be aimed towards the following objectives:

(a) Recording the existing skill set and understanding on the subject matter — this includes recognising the initiatives, programs, skilled professionals, experts and organisations steering longevity studies and leading the space, maintaining information in this respect and updating this database periodically.

[33] EY report on business ecosystem: - https://www.ey.com/en_in/alliances/what-business-ecosystem-means-and-why-it-matters

(b) Creating awareness on the subject among the masses — this includes educating students, young professionals, experienced persons, and most importantly, the ultimate beneficiaries and stakeholders of the various longevity products and recommendations made in this report. This aims to help in not just developing and understanding new initiatives but also the execution of existing and planned initiatives in the longevity space. It is also important to distinguish skill development and education on one hand, and awareness or financial literacy on the other. The focus should be to ensure that initiatives under each of these objectives go hand in hand.

(c) Increasing research, development and advancement in the field — this is perhaps the most apparent objective behind all skill development and awareness programs. Such initiatives are likely to result in a larger number of people examining, analysing, studying and researching the various sub-topics under the umbrella of longevity, potentially resulting in advancements and innovation in the field.

It is with these objectives in mind that certain potential recommendations, initiatives, development areas and programs are suggested below in line with discussion in Chapter 5.

Education

Education on the subject of longevity is perhaps what first comes to mind when speaking of creating and generating awareness on the subject. Such education can begin at the undergraduate level itself and certainly extend to graduate programs across a wide variety of undergraduate degrees in India and abroad. Incorporating longevity studies is potentially possible with any undergraduate degree, since longevity is intricately connected to all types of science, commerce and humanities. Particularly in terms of graduate programs, there could potentially be a specialised degree in longevity. For instance, there can be a specialised course around Longevity Finance that is offered with degrees such as Bachelorsin Commerce or Bachelors in Management and a specialisation on Longevity Finance on the whole or sub-topics under Longevity Finance in post-graduate management courses. Similarly, longevity-focused courses can be incorporated in medicine and other life sciences degrees, and there can be dedicated branches of study on longevity in humanities degrees such as those on policy, law and development. Given the wide scope of longevity, there are various avenues for integrating longevity education with the existing streams of education.

There are a wide variety of ways in which we can incorporate longevity education in educational institutes, colleges and organisations. Longevity can be incorporated in education through undergraduate and graduate degrees through one or more of the following measures:

- <u>Introducing longevity as an optional course, seminar paper subject or dissertation subject</u>

  Most courses in India offer a combination of compulsory subjects, courses or papers along with optional courses to be chosen by students. Typically, the curriculum is designed such that a student has to undertake a certain number of compulsory courses that are directly linked and intrinsic to the overall degree at hand, coupled with optional courses or subjects that the student can opt for depending on their area of interest and specialisation. Longevity studies can be incorporated in the form of such optional courses — not only could this potentially lead to more students opting for longevity as their study are, but the existence in itself of such courses could also lead to more people acquiring an overview of the subject, leading to the generation of basic awareness around it.

  Similarly, several degrees require students to write dissertations or seminar papers on a subject of their choice, from a bucket list of options shortlisted by the university or educational institute that are relevant to the main degree. These dissertation subjects and seminar paper subjects are meant to inculcate research and analytical skills in students and also to encourage them to suggest new perspectives and innovative ideas. Professors often choose good quality research papers to be published in internal and external journals and publications. Longevity Finance, being an area with vast scope for research given its nascent stage, can be introduced as such a subject offered to students for their dissertations and seminar papers. This will not only increase awareness on the subject with the author and the professor assessing such papers, but also with the larger public with this material being available for reading in publications and journals. This has the potential to create a ripple effect that increases awareness about the subject.

Accordingly, the Longevity Hub at the IFSCA can connect with multiple institutions to encourage these courses and incorporate them in their curriculum.

- <u>Publications and research paper competitions</u>

  Various publications are hosted by educational institutions, organisations, affiliated professional associations etc. These also range from being regular and periodic journals or journals published intermittently as and when papers are received and selected for publication. Such journals and publications release themes on which papers can be submitted. Longevity can be one of these themes. Students are incentivised to research on these themes mainly because of the prestige associated with such publication and its repute. In certain situations, a call for research papers is also structured as a competition, with the best papers being rewarded in one form or another, i.e., it could include monetary compensation, an opportunity to interact with a renowned professional, an opportunity to intern at a particular organisation, etc.

  Therefore, to encourage research and analysis of various subjects under longevity, the following can be considered:

  - Educational institutions or professional associations hosting specific competitions calling for papers with the specific theme of longevity (or any sub-theme under longevity, as may be relevant to the institution). The Longevity Hub at the IFSCA can co-host such competitions and sponsor the awards (monetary or otherwise). To this end, efforts can be made to tie up with reputed educational institutions to encourage this initiative globally and in India.
  - Longevity can be included as one of the themes in their current periodic journals. This can be implemented with the periodic journals of most organisations, since these journals are either broad-themed, or even when specialised, are likely to overlap with some aspects of longevity or a sub-theme of longevity.

- <u>Certificate courses</u>

  Another great measure to generate some awareness is through educational institutions holding certificate courses on longevity and related subjects in universities. Certificate courses essentially last for a week or ten days and cover the subject material in a pre-determined way. The IFSCA can collaborate with educational institutions to hold these courses, by connecting the right faculty with the right institution and hosting these courses with the relevant institution.

  This could be emphasised by tying up with prestigious organisations such as the IIMs, IITs, national law schools, and international universities, since the brand names of these universities adds an aspirational value incentive to these programs and courses, encouraging larger participation.

- <u>Internships and recruitment</u>

  While education is the first step towards advancing longevity, it is effective and sustained only practical skills are inherited by students and young professionals to implement their learnings. Most students intern parallelly with their respective educational courses or during vacations.

  Accordingly, the GLH at IFSCA should endeavour to do the following:

  - Offer students internships in various departments under the Longevity Finance Hub, depending on their relevant experience and area of interest.
  - Connect students (through its collaborations with educational institutions) to various organisations where longevity initiatives are being undertaken. These would include helping students avail internships and jobs at banks offering longevity products, research institutes involved with healthtech, startups working in the longevity sector, etc.

Workplaces and professionals

Offices, workplaces and corporate organisations can also encourage the growth of longevity awareness and initiatives, in addition to various measures towards longevity that can be implemented within the subject matter of their respective businesses.

Professional organisations already have several programs and awareness initiatives in place to help their employees grow their wealth, understand nuances of financial planning and management etc. Most of these programs cover the basics of financial planning required while the person is in the workforce, and some of these also touch upon retirement planning. The easiest measure to incorporate a longevity focus in these programs would be to pointedly include the avenues of Longevity Finance while discussing retirement planning and how retirement planning can transition into the various financial products available under retirement planning. Even apart from Longevity Finance, organisations can promote various other longevity products in their employee engagement programs, for instance, through longevity health tech products, longevity insurance products etc.

In addition to what organisations can do internally, they can assist with increasing awareness of longevity in the society in general as well. For instance, the IFSCA can consider the creation and curation of multiple financial literacy and longevity awareness programs that are created under the mentorship of experienced longevity professionals.

These programs can thereafter be licensed to various organisations that can implement their dissemination as part of their respective CSR initiatives. Similarly, they can be licensed to various non-profit organisations as well that can implement them in their normal course of activities.

8.2 TECHNOLOGY, BIO-TECH, LIFE SCIENCES AND LONGEVITY

Convergence of technology into Longevity

In the modern world, business cannot be imagined without technology. It has become the backbone of every organisation, be it large or small. Business without technology no longer exists. Technology plays a crucial role in the context of longevity as well. This does not merely include technology in terms of biotech and geroscience, but also includes the use of mainstream technology and incorporating it into all initiatives that are being considered in this report. There are two important aspects to cover with respect to technology and longevity: (1) the apparent one is the convergence and use of technology to help the cause of longevity in society in general, and (2) the less conspicuous aspect of making this technology and these measures more accessible to the target beneficiaries of longevity measures, i.e. the population over the age of 60 years.

Making technology accessible to the larger set of the population has been a problem in most developing countries because of their respective demographies. However, this is a common problem across all countries, demographies and economic status in relation to the beneficiaries of these longevity measures. Arguably, a large proportion of the population group aged 60+ years is not as comfortable with technology, its use and utilzing technology to the fullest compared to their younger counterparts. Currently, this could be because they did not grow up with the growth of technology like the current younger population did. However, it is unlikely that this would change even in the coming decades given the ever evolving nature of technology the rate at which technology has been growing and will most likely continue to grow in the near future could potentially continue to be so rapid that the current younger generation will not be able to keep up with as they grow older. While a large part of the efforts today are focused on making technology accessible to break barriers of economic status, demographic issues, linguistic challenges and educational challenges, it is equally important to make it friendly, simpler and accessible for the older population. For instance, a 70-year-old person may not be comfortable using the mobile application of their bank; regardless of their level of education, it is simply not something that comes intuitively to the older population. A solution to this could be assisted home banking or tele-banking services catered to this segment of the population.

Therefore, while thinking of all of the initiatives being discussed in this report, it is important to think of both of the above aspects. First, integrating technology in each of the measures that are being discussed (for instance, educational courses can be made into interactive videos for reaching a larger audience), and second, ensuring that there are no hurdles for the beneficiaries of longevity in accessing these benefits and measures that are being created for them.

Bio-Tech and Life Sciences

Bio-tech and life sciences are the most critical in the research and development (R&D) of longevity and related subjects. The very core of longevity is based on geroscience, life, extending life and life expectancy. Consequently, the entire realm of healthcare, R&D towards healthcare, biotech and related life sciences becomes critical to extending longevity. Longevity aside as well, these have become the global focus since the COVID-19 pandemic. Advanced developments over the last century have led to an increase in the life expectancy of human beings[34], and the pandemic has boosted such research further.

From the IFSC's perspective, it is key to ensure that there is constant support and aggressive promotion of companies working in this space and ensuring that they have the required infrastructure as mentioned in this report. The IFSCA could tie up with organisations involved with biotech, life sciences, geroscience, age analytics, etc. to come up with awareness programs and the promotion of these sciences.

8.3 SOCIAL ECO-SYSTEM

Having discussed various specific aspects of longevity and specific recommendations across this report, it is important to understand that longevity needs to be promoted in a comprehensive manner that includes individual, interpersonal, communal, societal, organisational and governmental measures. It is only when it is considered in the context of the creation of a social ecosystem, can it be an effective and sustainable exercise.

A dedicated centre for implementing these measures is critical to initiate and implement progressive measures, track progress, take remedial action where required and create a holistic system for the sustainable development of longevity. At the IFSCA, this is peculiarly challenging because the IFSCA is not limited by any geographical focus. This is an advantage as the possibilities are endless, but also a challenge in so far as streamlining efforts are concerned.

It is important for us to take into account the specific needs of the target audience that we are trying to capture and to adapt to the dynamic challenges that each set of this population brings forth. Therefore, the GLH, while focused on finance as it has the potential to create maximum impact, should set up a centre that focuses on tracking the

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[34] https://ourworldindata.org/life-expectancy

development of the social ecosystem around all the financial measures and initiatives being suggested here.

9. RECOMMENDATIONS

Sr. No.	Category	Period	Recommendations
1	Overall	Short Term	**Creating a Global Longevity Hub in IFSC:** The concept of Longevity hub is a new and has many components to it. While some require regulatory framework, support and intervention, others will require development of the ecosystem to aid the growth of Longevity industry at GIFT IFSC and globally. Leading corporates and financial institutions such as Banks, Pension Funds, Asset Management Funds, Insurance Companies, among others can jointly form a Hub to provide institutional arrangement for the development of globally recognised longevity hub in IFSC. It will be the responsibility of the Hub to focus on developing various longevity solutions. They will coordinate with all the potential stakeholders including the regulators. The key initiatives the Hub would explore shall include the following, among others: 1. Davos of longevity; 2. Skill Development; 3. Financial Literacy for Women; 4. Silver Entrepreneurship; 5. Sand-boxing of product ideas in Tech solution. 6. Life Para Medical Centre This would enable creating institutional arrangement for IFSCA to take forward Longevity agenda.
2	Overall	Long Term	**Inclusion of Longevity Finance as part of sustainable Finance:**

			IFSCA may consider including Longevity Finance as part of its Sustainable Finance and develop necessary mechanism to proceed further.
3	Overall	Medium Term	**Regulatory and Product Portability:** IFSCA should leverage its position by developing inter-regulatory connects and portability. IFSCA should work closely with domestic regulators to make IFSC a landing point for Longevity products which are not available in the Indian market. This would enable global institutions to develop longevity products for Indian market to IFSC under a unified environment and thereby help India develop such critical products. For the domestic regulator, the risk will be minimised as the experiment would be only limited to the IFSC zone. Similarly, IFSC should also have tie-up with overseas regulators for introducing products innovated in IFSC for making them available in the global markets.
4	Overall	Short Term	**Development of Longevity Financial Products by entities regulated by IFSCA:** In order to develop Longevity financial products, IFSCA should encourage all its licensed entities to develop Longevity products and acknowledge the implementation of the same by the entities under a single license. IFSCA should also provide all regulatory and other support required for institutions to develop Longevity products under a sandbox or commercial frameworks.
5	Overall	Short Term	**Composite License:** IFSCA permit single window approval for (a) Institutions and (b) Products.

			IFSCA should permit a single composite license for the distributors of financial products and services. It should permit manufacturers of a particular financial product or /service to distribute all other financial products or /services. (ii) All wellness and preventive care initiatives as well as value-added service offers may be filed as a single document for approval, rather than filing the same under each product separately.
6	Overall	Short Term	**Holistic Senior Care:** The IFSC should develop as a center for holistic senior care - this will go beyond just the financial aspects and would cover their socio-economic aspects as well. This idea will need the IFSC to provide solution for senior living, senior social connect opportunities, medical tech for senior citizens, interventions for specialised senior care, travel & entertainment facilities suited for senior citizens, and advanced research facilities for old age conditions like Alzheimers, dementia etc., amongst others. IFSCA will need to focus on facilitating such enriching activities and the success of this idea will lie in their well-designed programs which the senior citizens find appealing.
8	Overall	Short Term	**Longevity solutions targeted at NRIs/OCI/PIO:** Financial institutions incorporated in GIFT City should be permitted to offer longevity products denominated in USD. The legal and regulatory framework does not permit the same within the domestic tariff area of India (as far as insurance is concerned). However, longevity products denominated in USD are better suited to meet

			the demands of the NRI / OCI / PIO population (as well as foreign nationals).
9	Insurance	Short Term	**Allowing life/health wellness products under one license:** Insurers should be allowed to offer indemnity-based individual health products, with a minimum tenure of three years. Furthermore, since insurers are risk managers for the medium to long term, they are better aligned to offer health products with a slightly longer tenure. Long-term health insurance is the need of the hour, particularly given the current pandemic situation. IFSCA should explicitly permit life insurers as well, to carry on wellness programmes for its policyholders, specifically for senior citizens. IFSCA should permit insurers to offer certain other value-added services to their customers based on their life stage requirements, such as holistic wellness programs, legacy creation, retirement planning and document vaults. Further, all insurance providers should also be permitted to offer wellness and preventive care initiatives as well as allied value-added services to their policyholders.
10	Insurance	Short Term	**Pension products:** Introduce innovative Pension Products for NRIs. Pension and annuities are very important for the silver generation to maintain their standard of living even in these years. The Longevity hub can design innovative

			pension products to provide a reasonable income till the person is alive. These products can be marketed for NRIs and PIOs all over the world. NRIs from Middle East could be a great market as all of them would come back to India after they complete their active professional life.
11	Insurance	Short Term	**Health Insurance:** Make available Health Insurance for silver generation including NRIs, PIOs and foreign nationals.
12	Insurance	Short Term	**Property Insurance**: Make available Property Insurance to homeowners from the IFSC for covering property owned by senior citizens, including NRIs/ PIOs and foreign nationals.
13	Insurance	Short Term	**Medical Tourism:** Allowing Indian / Foreign insurance companies to offer mediclaim policies to non-residents from IFSC for treatment in India will help boost medical tourism in India.
14	Insurance	Medium Term	**Permit Insurers to engage in allied lines of business:** The IFSCA should allow financial service providers to also engage in other lines of business that are allied to their core businesses. This will pave the way for the organic growth of the health and wellness space, as well as FinTech and InsurTech initiatives. Further, IFSCA should allow insurers to hold subsidiaries operating in FinTech and InsurTech space. This will help to provide a comprehensive suite of services to customers and will enhance the value proposition.

15	Insurance	Medium Term	**Issue the framework for Foreign and Indian issuers to invest in India and abroad:** The IFSCA entities be exempted from the restriction on overseas investment. It is necessary to draft separate investment regulations, offering more flexibility to invest both in India and abroad to get better returns. Foreign insurers and Indian insurers in the IFSC should be allowed to make investments across the globe with appropriate safeguards.
16	Banking	Short-term	**Increase in LRS limit:** Under the LRS, all resident individuals, including minors, are allowed to freely remit up to USD250,000 per FY (April–March) for any permissible current or capital account transaction. Considering thus, IBUs should be allowed to offer longevity solutions to Indian residents, and the yearly limit of USD250,000 should be increased to USD500,000 to enable Indian residents to invest in the retirement products offered by IBUs.
17	Capital market	Short Term	**Creating a strong global trustee system:** The IFSC platform must attract globally well-reputed trustee companies. Such trustees would increase foreign investor confidence in GIFT products. These trustees must be empowered with the requisite powers to enforce the various agreements and contracts.
18	Capital Market	Short Term	**Permit products to enable layering of Risk:** IFSCA should allow layering of the risk and reward so that investment demand from conservative to

			aggressive investors can be satisfied. This can be done through senior, mezzanine and junior risk return trade off in the instrument per se or through different class of units in the investment vehicle. The compartmentalisation of risk/ reward will ensure wider issuance of securities and wider participation from investors. Our domestic market lacks this layering and hence GIFT city can attract wider participation of issuer as well as investor.
19	Capital Market	Short Term	**Permit asset allocator products:** The asset manager should be allowed to allocate funds across all asset classes which would include securities, commodities, futures & options, private equity and any new convention and asset class in line with innovation and evolution of the longevity finance space.
20	Capital Market / Insurance	Short Term	**Introduce reverse mortgage for financial assets:** Reverse Mortgage concept in other assets like Stock/Bond portfolio/ whole life term policies) should be developed. This is relatively new concept and may work on a portfolio of many investors on a pool basis. This will provide much needed liquidity to the senior citizens and attract investors looking for a longer-term asset through regular investment.
21	Capital market	Medium Term	**Framework for establishment of a specialized platform and issue of Longevity Bonds:** IFSCA should focus on establishment of a specialized platform on IFSC exchanges for Longevity companies including startups and creating index to represent the

			market capitalization of companies focusing on Longevity. In the line of sustainable Bonds, IFSCA may create framework for primary Issuance of Longevity Bonds on IFSC stock exchanges.
22	Overall	Medium Term	**Longevity Risk Instruments:** The following longevity risk transfer instruments be developed in GIFT IFSC (a) Longevity Risk Transfer Instruments The insurance company can develop longevity risk transfer instruments. These instruments that can be used to transfer longevity risk are based on the types of risk transferred. Insurers are linked with pension buy-ins, buy-outs and longevity insurance, while investment banks and reinsurers are connected with longevity swap transactions. Banks in most countries refrain from issuing or playing a part in longevity risk in the form of annuities, buy-ins and buy-outs, but can indirectly participate in swap transactions (b) Longevity swap (or insurance) transaction The sponsor of the plan makes fixed periodic payments to the swap counterparty, which makes intermittent payments that are based on the difference between the actual and expected benefit payments. The sponsor assumes full responsibility for making benefit payments to the employees. Swaps help to isolate longevity risk and can be combined with other derivative contracts such as inflation, interest rate and total return swaps

			(c) Longevity bonds The pay-out on longevity bonds depends on the longevity experience of a given population so that the payment is related to the number of survivors in the population and the bond would end up paying out more as the proportion of survivors in the reference population rises. Counterparty risk in the case of bonds can be negated if they are issued by a high-quality sovereign or supranational, or by a special purpose vehicle that invests the proceeds in low-risk, highly liquid, fixed-income securities from which the income covers the bond pay-outs.

10. ANNEX

ANNEX 1. TERMS OF REFERENCE

(i) To recommend IFSCA on long term vision for setting up of Longevity Finance Hub in GIFT IFSC including the prospect of trans-generational value creation, availability of innovative financial products catering to the needs of different age groups and bringing together the human, societal and financial capital.

(ii) To make recommendations with respect to structure of Longevity Finance in IFSC. The recommendations may be three-fold:

- Short term in nature that can be implemented by IFSCA immediately (i.e. less than 6 months). Such suggestions should fall under the exclusive regulatory purview of IFSCA.
- Mid- term: Recommendations that may be implemented in mid-term (6 months to 1 year). Such suggestions may involve coordination with other regulators.
- Long term: Recommendations that may be implemented in long term (1 to 2 year).

(iii) To identify issues that may be critical for development of the Longevity Finance at IFSCs including inter-regulatory issues.

(iv) Any other suggestions for development of Longevity Finance Hub at IFSC.

(v) The Committee may also examine and address any other issues which are important though not specifically mentioned in ToR.

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