The Longevity Report
Business Insights in an Aging World

Innovations in a New Era of Longevity

BAXTER CONSULTING GROUP
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Age 50+ Market Strategies

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Foreword

The early part of 2017 has been eventful, as political developments in the United States and abroad have kept many of us focused on the very near term. But while political and economic vicissitudes will frequently ripple markets, population aging is like a surging tide that is reshaping our future.

At Baxter Consulting Group, we are dedicated to helping companies succeed in an aging world. The *Longevity Report* is part of our effort to bring together the best ideas and strategies to meet the needs of older consumers.

In this report we will take a look at the challenges, struggles, and innovations as companies and nations re-gear for new demographic realities. In the first section of this issue, “The Business of Longevity,” we focus our attention on the role of technology, examining how the financial services and senior living industries are adopting new technologies to create powerful solutions in the age 50+ marketplace.

In our second section, “Atlas of Aging,” we first travel to Asia to see how Japan—the oldest nation in the world—is pioneering solutions for its rapidly aging population, and to explore what lessons they might offer for the rest of us. We then look at how retirement and aging are beginning to be re-imagined in China, before going to Europe to examine how and why Sweden is exceling in engaging older workers, and where the Swedes are falling short.

In the third section of this report, “Innovators in Focus,” we look at two examples of companies seeking to revolutionize aging: one which is seeking to make eldercare better, easier, and cheaper, and the other which is trying to do away with aging altogether. In our last section, “Age 50+ Market Strategies,” we focus on the financial advice industry, and how lifestage strategies can help advisors connect with clients preparing for retirement and future financial needs.

We hope you find this report edifying, inspiring, and provocative.

Best,

David Baxter

David Baxter
CEO, Baxter Consulting Group

The Business of Longevity: Financial Services and Technology

Demography and technology transform wealth management

New technologies are changing the ways wealth management firms engage and retain clients.

Demography and technology are converging to revolutionize the wealth management industry in the coming decade.

Unprecedented global demographic forces are helping create a “golden age” in financial services. Over the next five years, household assets under management are forecast to increase $50 trillion in the top twenty-five markets, according to a new study by Roubini ThoughtLab. Behind this massive increase are global population aging, increased savings driven by rising longevity, and rising middle classes in emerging markets.

At the same time, new technologies, ranging from fintech and robo-advisors to social media, are changing the ways wealth management firms are able to engage and retain clients. These technology innovations are forming new battlefronts as advisors vie for investors across emerging generations of investors.

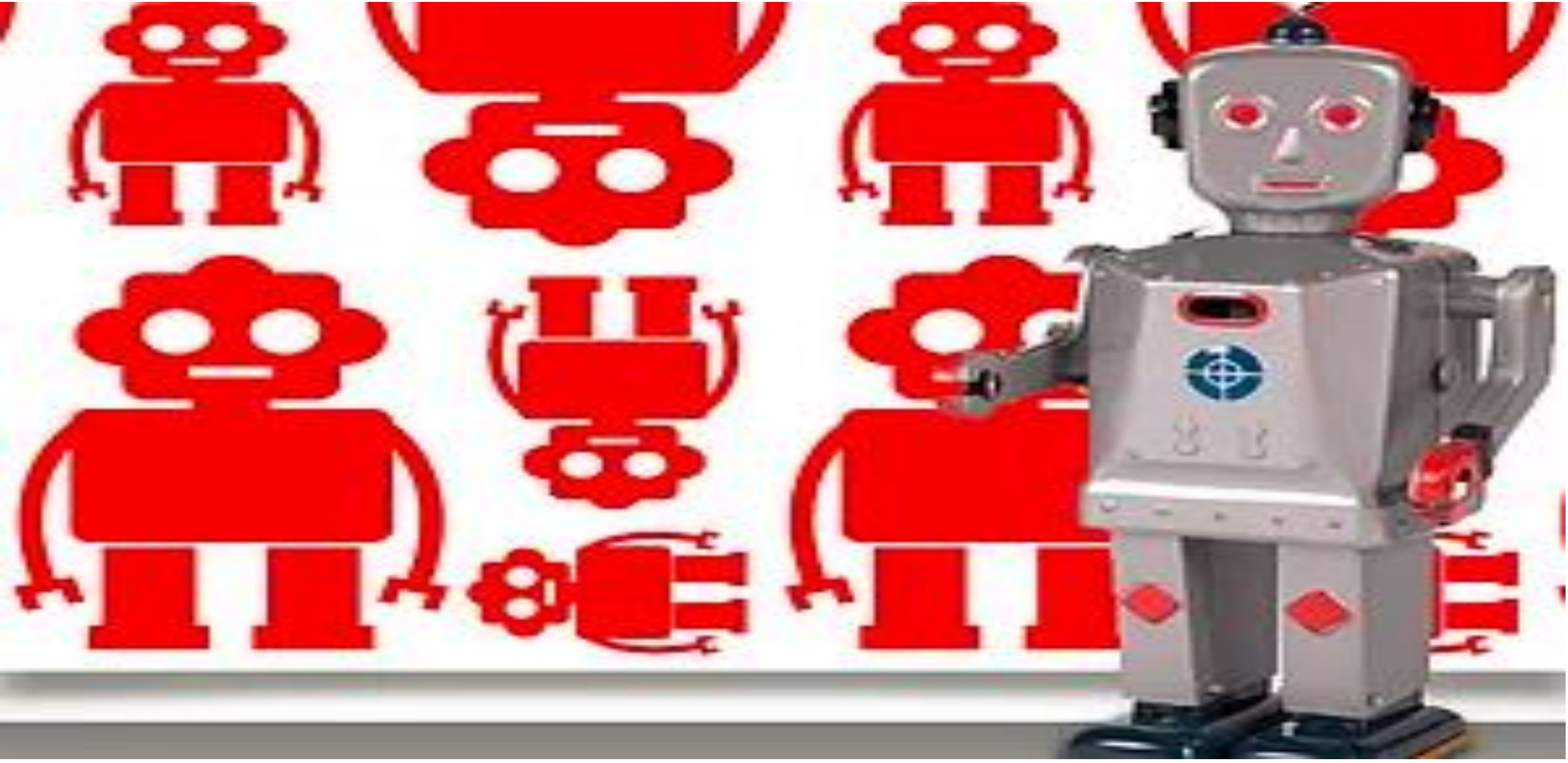
The stakes are high as both retirement savings and inheritance transfers escalate. The wealth transfer to Millennials in the U.S. alone will total $30 trillion over the next several decades, according to analysis by Bank of America. Half of investors across all generations indicate they are willing to switch providers. But Millennials will prove particularly fickle. Two-thirds (65%) of Millennials say they are willing to change providers, compared to 53% of Boomers and just 42% of Generation X, according to the Roubini ThoughtLab global study.

Technology will be key to unlocking the Millennial potential. 53% of Millennials say they will have a preference for fintech in the coming years, compared to just 32% of Boomers. Steve Scruton, President of Broadridge Advisor Solutions, believes that to capitalize on the Millennial market, providers must:

1. Leverage social media and online collaboration to build brands and communications channels that resonate with Millennials.
2. Use advanced analytics to identify and engage Millennials with a high probability of becoming wealthy.
3. Use technology to build family relationships and lay the groundwork for transition plans.
4. Create mobile and web-based investor portals to both respond to investor needs and gather customer data.
5. Implement aggregation technology that enables advisors to take a 360-degree view of a family's assets and planning needs.

However, while there is much discussion about Millennials, wealth advisory firms are now training their focus on another generation that, until now, has been often ignored: Generation X. As Gen Xers escalate savings and investing for their retirement, 89% of wealth management companies say they are targeting Generation X for near-term growth, while significantly fewer say they will be targeting Millennials (79%) or Boomers (81%).

Regardless of which generation advisors are targeting, technology will play a major role in meeting the unique needs of each generation and lifestage. "Individual factors are of great importance when you're talking about retirement and how you should be invested," says Bob Reynolds, President and CEO of Putnam Investments. "One of the great promises of technology is the ability to tailor products and potential solutions to individuals and their financial advisors in a way that meets their unique situations."



The Business of Longevity: Senior Living and Technology

Innovations Accelerate in Robotic Eldercare

A growing number of senior living communities are entertaining the notion that robotics may be part of the answer.

The 2012 movie Robot & Frank features a humanoid robot companion designed to help older adults struggling with health challenges. In the movie, the robot not only helps improve the leading character's physical health, but also provides companionship and vital emotional connections. But the movie also explores the potential controversies and discomfort that can arise when technology replaces the human touch.

Not far from Hollywood, the Glendale-based organization Front Porch recently concluded a six-month study of robotic care among memory care residents within seven of its retirement communities. Its featured robot, PARO, is created in likeness of a baby harp seal, and was invented by Japanese engineer and MIT AgeLab research fellow Dr. Takanori Shibata.

"Front Porch has been using PARO very effectively at their Summer House memory care neighborhoods," Shibata said. "Front Porch Center for Innovation and Wellbeing documented 920 instances of PARO intervention and the resulting therapeutic effects on older adults with dementia."

In fact, the Front Porch study showed promising results, including a 59% reduction in anxious behaviors and a 97% increase in social behaviors and connections. "We continue to be astounded by the impact on mood, social interaction and communication," said Davis Park, director of the Front Porch Center for Innovation and Wellbeing.

As senior living communities and care facilities struggle with labor costs, shortages, and high turnover, a growing number are entertaining the notion that robotics may be part of the answer. Meanwhile, older adults seeking to age in place in their own homes will have more robotic solutions available to them in the years ahead. Worldwide, manufacturers sold 4,416 elderly assistance robots in 2014, according to the International Federation of Robotics in Frankfurt, which also projects sales will total 32,500 units from 2015 through 2018.

In Europe, an international research initiative called Robot-Era earlier this year concluded the world's largest real-life trial of robot aides for the elderly, including senior populations in Italy and Sweden. The European Commission is now investing hundreds of millions of euros to foster innovation in robotic eldercare.

Experts in China project robots will begin to play a critical role in the care of China's elderly this decade. The social welfare center in Hangzhou, Zhejiang province, began using Ah Tie robots in May to act as caretakers and companions in its senior living communities. The robots are equipped with two 5-megapixel cameras to monitor patients—and can also sing, dance, and carry on a basic conversation. According to Zhao Huyue, deputy director of the center, Ah Tie robots both support human healthcare workers and enrich the social lives of residents. "Robots may be able to help with bathing and other basic tasks in the near future, but we must also pay attention to family relationships and emotional bonds," Zhao said.

But Japan remains the epicenter of the robotic eldercare revolution. With some startling innovations such Toshiba's android, ChihiraAico, which strongly resembles a 32-year old Japanese woman, and Honda's humanoid robot Asimo, breakthroughs are a necessity in a society burdened by rapid population aging and rampant shortages in eldercare workers. In 2015, Softbank's four-foot tall Pepper robots went on sale $1,600 each—and the whole supply of 1,000 robots sold out in less than a minute.

Pushing other boundaries, Japan's Cyberdyne—a name far more reminiscent of Terminator than Robot & Frank—has developed a motorized exoskeleton that can provide autonomous motion assistance for the elderly or disabled.

In fact, recent technology innovations will likely vault the robotic eldercare to new levels. "Chinese enterprises who specialized in voice recognition, semantics understanding and image identification have performed very well in recent years," says Zhuang Yongjun, chief technology officer of Qihan Technology Co Ltd.

Not everyone is entirely enthusiastic about the possibilities. "We have robots coming into areas like elder care, or children's toys. It seems that the way people treat them like a living thing might raise some concerns about the emotional manipulation of people, of human dignity," says

Kate Darling, a robotics researcher at Massachusetts Institute of Technology.
Such concerns will be an important part of the conversation as the robotic eldercare industry gains momentum. And the race has officially started. “The commission has very clear goals around the use of robotics in the field of active and healthy aging,” says Andy Bleaden, who evaluates projects seeking funding from the European Commission. “The EC is putting money on the table is to get ours to market faster than our competitors.”

The Business of Longevity: Senior Living and Technology

Senior Living Communities Ramp Up Technology

Use of technology is accelerating among senior living operators, driven by three major trends.

Technology is taking hold among senior living operators, according to the November 2016 LeadingAge Ziegler 150 report. Faced with mounting labor shortages, and anticipating growing demand as the boomer generation ages, a growing number of senior living communities are integrating technology to enhance workforce efficiency, reduce patient risk, and improve quality of care.

Between 2014 and 2015, the percent of surveyed senior living operators who utilized electronic medical records (EMRs) rose 75 to 80%. The number using automatic fall detector technologies increased by half, from 24% to 36%. Those using telehealth and telemonitoring technologies almost tripled from 7% to about 20%. And the percent using medication monitoring technologies has been rising dramatically over the last several years from 21% in 2014, to 39% in 2015, to 45% in 2015.

The adoption of technology is being driven by three major trends. First, the senior living industry, already grappling with mounting labor shortages, is facing unprecedented demographic pressures. 20 percent of Americans will be 65 years or older by 2030, and 19 million adults will need long-term care services by 2050, up from 8 million in 2000, according to a University of California-San Francisco study. As a result, the long-term care workforce will need to increase by 79% by 2030 to keep up with demand, according the study. “Even if 20 percent of elderly patients move out of nursing homes into home health care, which would be huge change, the projected increase in demand for long-term care workers would only drop from 79 percent to 74 percent,” said lead author Joanne Spetz, PhD, professor at the UCSF Phillip R. Lee Institute for Health Policy Studies and associate director for research strategy at the UCSF Center for the Health Professions. “Filling these jobs will be a big challenge under any scenario.”

Second, technology is becoming more widespread throughout different sectors of the health care system. These technology innovations are particularly effective in addressing the complex, long term care needs of an aging population, which typically require ongoing communication and coordination between payers, pharmacies, hospices, labs, hospitals, and other care providers. Senior living communities, which have generally lagged other health care sectors in technology adoption, are now striving to more efficiently interact with other members of the health care ecosystem.

Third, new evidence that social interaction technologies can improve both quality of life and health of residents is spurring a growing number of senior living communities to build in greater technology infrastructure, including accessible wi-fi, tablets, gaming, education, and other technologies that enable residents to stay engaged and connected to family and friends. A study conducted by the Stanford Center on Longevity, sponsored by Brookdale Senior Living, found that residents’ use of technology is associated with higher life satisfaction, lower loneliness, higher goal attainment, better subjective health, and fewer functional limitations. Another recent study conducted by the University of California at San Diego found that use of social platforms such as Facebook increases life expectancy.

Future generations of senior living residents will be both more adept with, and demanding of, technology innovations to improve both their quality of life and care. According to the Pew Research Center, usage of social media among those 65 and older has more than tripled from 2010 (11%) to 2015 (35%). Senior living communities which adopt the right technology innovations today will be better prepared to differentiate and compete for increasingly tech-savvy customers in the coming decade.

The Business of Longevity: Financial Advice and Technology

Robo-Advisors: Friend or Foe?

The robo-advisors have arrived. Optimizing their role in financial advice will be the next challenge.

In perhaps the most famous battle between man and machine, John Henry challenged the steam-powered hammer in a race to build the Chesapeake and Ohio Railway's Big Bend Tunnel. Today, human financial advisors are facing fierce competition from a new breed of machine adversaries: robo-advisors. However, in the financial advice industry, convergence rather than competition may win the day.

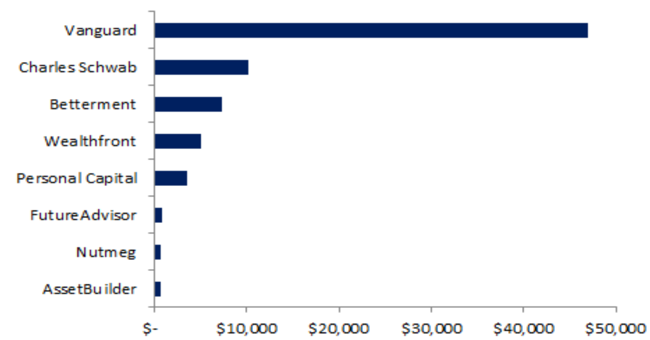
Robo-advisors first emerged in 2008. Offering automated portfolio planning, asset allocation, and account re-balancing, robo-advisors quickly gained traction among early adopter investors drawn to the low balance requirements, ease-of-use, and fees which are a mere fraction of what their human counterparts demand. In the third quarter of 2016, assets under robo-advisor control totaled about $70 billion. This number is expected to surge to $489 billion by 2020, according to estimates by Cerulli Associates.

Some view robo-advisory as the natural next step in the evolution of financial advice, as online and computerized mechanisms increasingly replace human tasks. In the old days, simple stock trades were made through phone calls or even in-person meetings with human stock brokers. Online trading platforms which took root in the 1990s have largely usurped this role. Since then, industry innovations, from online financial calculators to digital advice, have moved a growing number of functions from human to machine. Robo-advice, however, represents an evolutionary leap. By taking on the more sophisticated functions of investment management, robo-advice is beginning to challenge advisors on their home turf.

Robo-advice was pioneered by pure-play startups such as Wealthfront and Betterment. But the big wirehouses were quick to enter the fray. Their motivation has been both defense and offense. The wirehouses were certainly concerned that the rapidly growing robo-advice startups posed a threat to their current client base, but they also saw the potential to extend market share beyond higher net worth clients into the mass affluent. And, by leveraging their existing client base, companies like Vanguard and Charles Schwab quickly became the largest players in robo-advisory. While some, like Schwab and Merrill Lynch, built their robo-advice business in-house, others, like Blackrock (which purchased FutureAdvisor in 2015), acquired it. More acquisitions are no doubt in the offing as others play catch-up.

The robo-advice market, however, largely remains in the domain of the younger and less affluent clients. This is partly due to what robo-advisors are good at. While robo-advisors can smartly manage investment portfolios given a few simple criteria, more complex functions, such as estate planning, retirement services, tax planning, or coaching and reassuring clients during difficult market conditions, are currently beyond their capabilities.

Assets Under Management, $Million



Source: Statistica, February 2017

And this is where human financial advisors still have a firm advantage over their robo-adversaries. A growing number of companies are recognizing that a complementary offering that blends human and machine in creative ways can serve more clients better. While Wealthfront is sticking to a pure robo-advice product, Vanguard, Schwab, and Betterment are all giving clients access to both human and machine to create holistic financial planning solutions.

Folklore tells us that John Henry defeated his mechanical adversary, but expired shortly thereafter due to the effort. In retrospect, he might have thought it wiser to seek out areas for collaboration instead of contention. The financial advice industry can learn well from this lesson.

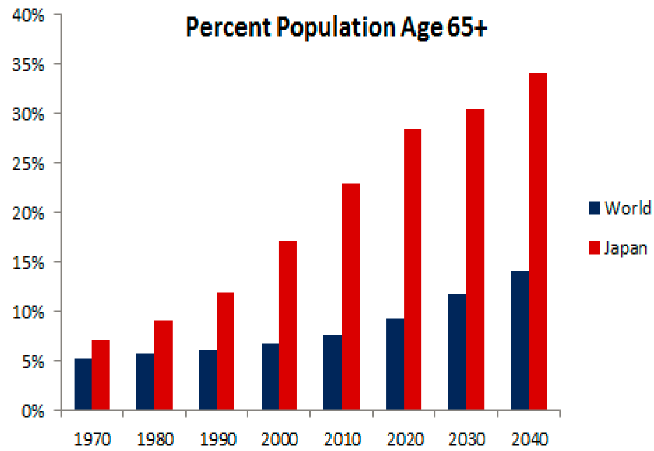
Atlas of Aging: Asia

Spotlight on Japan

Japan is pioneering solutions to address opportunities and needs created by its rapid population aging.

The world's economies are entering unknown and potentially hazardous terrain as populations age at unprecedented rates. What will happen to economic growth and markets as younger populations shrink? Can governments and pension systems shoulder the burden of escalating numbers of retirees? Will health care systems be ready? Can companies innovate to meet the needs of older customers, and survive or even thrive in a new demographic order?

As the world begins to cross into these uncertain terrains, Japan is the brave pioneer foraging ahead of us all. Due to a powerful mix of extraordinarily high life expectancy and collapsing birth rates, Japan is the oldest nation in the world. In 2010, Japan's population began to decline. Today, a quarter of its population is age 65+, and by the year 2040, one out of three Japanese will be over age 65. When other aging nations look at Japan, they have a glimpse of what might eventually be their own demographic destiny.



Source: United Nations, Department of Economic and Social Affairs, Population Division (2015); Baxter Consulting Group calculations

What they see may not be very encouraging. Japan's economic struggles are legendary. Its annual economic growth has averaged just 0.5% over the past decade. Japan now has the world's highest ratio of public debt to GDP. Although there are many contributing factors to the nation's problems, its shrinking working age populations and rising numbers of elders are significant barriers to economic growth.

Yet in the midst of difficulty, Japanese are apt to cite a common proverb: "*Keizoku wa chikara nari*." Roughly translated: "Perseverance is power." In its economic struggles, Japan is not just persevering, it is also leading the way in innovating business and government policy solutions. Nations which are preparing for their own impending aging can learn important lessons by watching Japan's experiments, successes, and mistakes in the coming years.

While some of these experiments (such as the government-sponsored "*konkatsu*" singles parties designed to increase birth rates) have either met with limited success or are still a work-in-process, other initiatives are making headway in reshaping Japan's society and economy to accommodate a new era of aging.

Prime Minister Shinzo Abe's four-year old "Abenomics" program is engineered to jolt Japan out its flatlining economy and counter some of the negative economic consequences of population aging and a shrinking workforce. Elements include an aggressive "womenomics" initiative to empower women in the workforce, a "robotic revolution" to offset the shrinking workforce population, and initiatives to catalyze medical innovations and technologies. This last element includes the creation of an "advanced medical highway" to provide fast access to the latest medical treatments, promotion of regenerative medicine, and advancing the use of information and communication technologies in the health and medical sector.

Japan's government has also pioneered a highly generous national long-term care insurance initiative, implemented in 2000, and ramped up in 2011 to better integrate health care, prevention strategies, and long-term care. Prior to the creation of the long-term care insurance initiative, Japan was burdened by rampant "social hospitalization" as older Japanese, with no other options available, resorted to long-term hospital stays. Recently, co-payments have been raised to offset the unanticipated high costs of the long-term care insurance program. But Japan is clearly doing something right with its health and health care. Japan now spends 10% of GDP on health care, slightly more than half of what is spent in the U.S. despite the extraordinarily advanced age of the Japanese population.

Meanwhile, the private sector is switching its marketing focus from dwindling youthful markets to burgeoning opportunities among older customers. Although the age 60+ population accounts for less than a third of Japan's households, they now account for half of all consumer spending. The Aeon Group, a leading retail group in Japan, is redesigning malls and retail outlets to appeal to older customers, including the introduction of senior-focused products, creation of "concept zones" in malls with activities which appeal to seniors, increasing the size and visibility of signs, and the introduction of concierge robots. Lawson, with over 12,000 convenience stores in Japan, recently introduced "seniors' salons" with special health services and products for older adults and their caregivers.

U.S. companies attuned to the opportunities in Japan's aging marketplace are also flourishing. The US fitness chain Curves International entered the Japanese market ten years ago, and now has 1,625 gyms with 710,000 members. The average age of their members is 61. In 2015, IBM and Apple announced a partnership with Japan Post Group to introduce new products and services to monitor the health and wellness of older Japanese customers, leveraging the mail company's 24,000 post offices and 400,000 employees. This program includes a "watch" service where mail carriers monitor and communicate the status of older customers through customized iPads.

Japan also boasts high productivity and labor force participation rates among older workers, thanks in part to a 2013 law that requires employers to either create flexible or "phased retirement" career paths for older workers, raise retirement age, or remove age limits for jobs. While growth in phased retirement programs in the U.S. have been anemic due to tax and anti-discrimination laws, Japan is leading the way in developing creative ways to retain and empower older talent.

According to aging expert and author Hiroyuki Murata, Japan's success will depend on understanding and embracing the opportunities that accompany population aging, and switching its focus from "anti-aging" to "smart aging." Part of this will mean re-defining what later life means. In January, the Japanese Gerontological Society proposed moving the definition of "elderly" back a decade, from age 65+ to age 75+, reflecting rising life expectancy and health and productivity among Japan's older populations. Japan is re-writing the rules of aging, and the world should take note.

Atlas of Aging: Asia

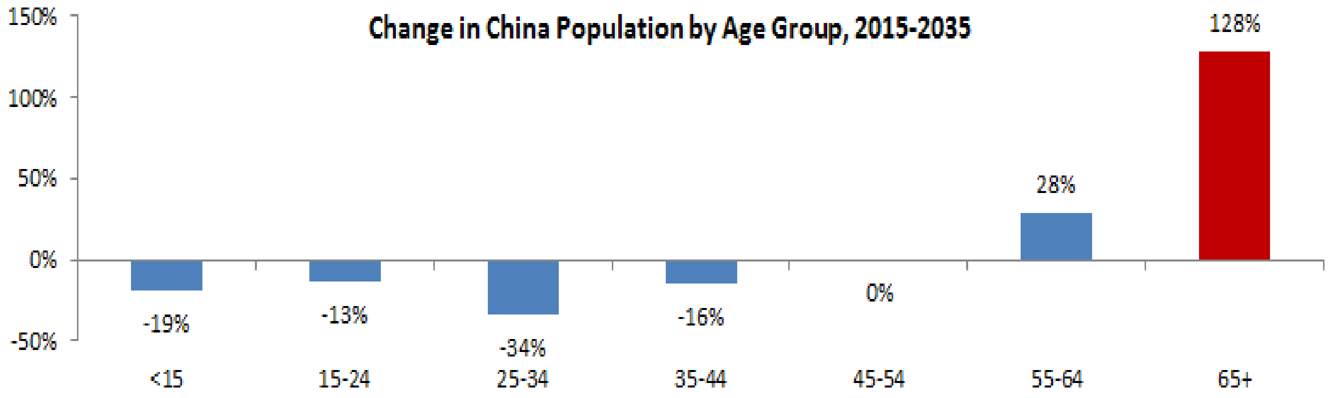
Why China Needs New Retirement Role Models

Faced with unprecedented population aging, China can no longer afford a retirement leisure class. Beijing can't fix this on its own.

80-year old Wang Deshun, dubbed China's "hottest grandpa" among his many social media fans, represents everything that is new about old age in China. Catapulting to international fame after strutting the catwalk shirtless at the China Fashion Week in Beijing last year, Mr. Wang is ambitious, witty, energetic, and showcases a physique that puts most men half his age to shame. "Nature determines age, but you determine your state of mind," says Mr. Wang.

Indeed, the older he gets, the more unstoppable Mr. Wang appears. At age 49, he decided to become a body-builder, and he now works out three hours a day to maintain his impressive physique. At age 65, he learned to ride a horse. Two years ago, at age 78, he became a motorcycle enthusiast.

Mr. Wang's rise to fame coincides with a critical tipping point in China's history. China's population is aging at unprecedented rates. Until very recently, China had always been a youthful nation. In 1950, life



Source: United Nations, Baxter Consulting Group Analysis

expectancy was just 43 years, and the median age was 24. Today, life expectancy is 77 and the median age is 35. China's one-child policy, implemented in the 1970s, slammed the brakes on population growth among younger populations, while the growth of older populations is accelerating. Between 2015 and 2035, the age 65+ population is projected to increase 128%.

And yet, China's institutions, traditions, and social structures, along with the way many Chinese tend to think about later life, have largely been stuck in the past. Most older Chinese, ushered out of the workforce at early ages (city-dwelling Chinese men generally retire no later than age 60, while women retire in their early 50s), are unproductive for decades of their lives. Retirees are often dependent on family or the largesse of government or private sector pensions. Civic engagement and volunteering in retirement are virtually non-existent.

The Chinese model of retirement contrasts starkly with the way retirement has been evolving in other nations. In the U.S., for example, retirement increasingly means continued productivity, social engagement, and financial self-reliance. Today, one in five Americans age 65+ are working, up from just 13% in the year 2000. Retirees volunteer the most hours of any age group in the U.S. And after most companies replaced defined benefit pensions with 401(k)'s, Americans are now largely responsible for preparing for their own retirements.

The Chinese retirement is increasingly unsustainable. China's working-age population began to shrink in 2016, which will impose growing burdens on the country's pension system and economy. Analysts have long warned that China's state pension have a severe funding shortage. Some estimate the cash shortfall could rise to be nearly $11 trillion in the next 20 years.

Moreover, the old model of retirement does not match the health, vitality, and potential of new generations of older Chinese. Thanks to vast improvements in health and education, says James Smith of the RAND Corporation, "in 20 years, Chinese people who are 50 today are not going to look at all like Chinese people in their 70s right now."

Government policy changes are necessary to enable Chinese to continue working longer. But what is also required is a far-reaching cultural shift that empowers people to view retirement as an opportunity to remain productive and engaged. Role models like Mr. Wang will undoubtedly inspire many to re-think aging. More are needed to help pioneer a new course for China's future.

Atlas of Aging: Europe

As Workforces Age, Look to Sweden

Sweden leads the pack in age 55+ labor force participation. Other nations can learn from what they are doing right.

Until recently, global economic growth and corporate profits and productivity were bolstered by steadily rising numbers of younger workers. However, due to falling birth rates over the last several decades, the growth in younger working age populations is now slowing dramatically. Between 2000 and 2015, for example, global populations age 20-54 increased 24%. Between 2015 and 2030, growth in these populations will fall to just 10%.

So where will tomorrow's workers come from? Policy makers, economists, and corporate leaders are increasingly recognizing that future workforce and economic growth will be driven by older populations: Between 2015 and 2030, the age 55+ population will increase 49%, five times faster than under age 55 working populations. To sustain economic growth, experts are now looking for national policies, best practices, and strategies to engage, motivate, and retain older workers.

Many are now taking a close look at Sweden. Among major OECD economies, Sweden ranks #1 in labor force participation rates among populations age 55+. If other OECD economies could match Sweden's engagement of older workers, the benefits would be enormous. According to a recent study by PwC, the OECD could add $2.6 trillion to its total GDP if other nations increased employment rates among people age over 55 to levels achieved in Sweden.

So how has Sweden achieved such enviable workforce participation rates among its older populations? Many attribute the nation's success to a mix of government foresight and proactive and positive collaboration between labor organizations and companies. While pension and tax policies penalize older workers in many countries, Sweden reformed its pension system in 1999 to allow for continued work while receiving full government pension payments. A decade ago, Sweden created an in-work tax credit that was particularly generous for older workers, abolished payroll taxes and pension contributions for older employees, and modified laws to increase older work employability through the 2007 Employment Protection Act. In 2009, new laws were introduced to combat age discrimination. In the private sector, cooperation between companies and labor organizations has empowered older workers to find new ways to work. For example, job security councils have been formed nationwide to support the unemployed, and to help older workers re-train and update skills for new career paths.

But there is room to improve even for the Swedes. Although Sweden excels in labor for participation among those age 55-64, its workforce participation for those age 65+ is decidedly average. In part, this is due to cultural norms and corporate policies that encourage exit at a traditional retirement age. Moreover, according to a recent Manpower survey, compared to other nations, Swedish companies rank surprisingly badly in their implementation of formal policies to recruit and retain older workers.

As other nations face their own workforce aging issues, they would be wise to examine both the strengths and weaknesses of the Swedish system. Although not all best practices are portable across borders, nations which learn from strategies that apply most effectively to their own workforce environments will be best prepared for workforce aging in the coming decades.

Innovators in Focus

UNITY Biotechnology to Battle Aging at the Cellular Level

UNITY Biotechnology wants to stop aging, and has the backing of the likes of Jeff Bezos and the Mayo Clinic.

UNITY Biotechnology is opening a new front in the war on aging by developing medicines that target "senescent cells," damaged cells in our bodies that cause inflammation and contribute to aging-related conditions such as osteoarthritis, atherosclerosis, kidney disease, glaucoma, and macular degeneration. "We have demonstrated that senescence is a key mechanism in aging and age-related disease," according to Dr. Nathaniel David, founder and president of UNITY.

Some smart investors seem convinced. Last October, UNITY announced $116 million in Series B funding from Peter Thiel's Founders Fund, Jeff Bezos' venture fund Bezos Expeditions, Mayo Clinic Ventures, Venrock, and ARCH Venture Partners. The enthusiasm may be warranted. Early trials seem promising, and UNITY is going after big game. The osteoporosis drugs market alone totaled over $11 billion in 2015, according to estimates from Zion Research.

Research conducted by both the Buck Institute and the Mayo Clinic demonstrate relationships between senescent cells and aging-related diseases. Therapies that eliminate senescent cell therapies have shown promise in early trials on mice, who with treatment are more youthful, energetic, and live 20 percent longer. There are indications the novel approach might help grow cartilage and reverse the devastating effects of osteoarthritis. UNITY hopes to begin conducting human trials by the middle of next year, with an initial focus on osteoarthritis before expanding to other conditions.

But UNITY is not the only one on the anti-aging warpath. In 2013 Google founder Larry Page announced the creation of Calico, which has recruited longevity luminaries such as Cynthia Kenyon to crack the code on the biology of aging. San Diego-based Human Longevity, founded by famed biologist Craig Venter and the accomplished entrepreneur Peter Diamandis, has raised $300 million to build the world's most comprehensive database on human genotypes and phenotypes, and then subject it to machine learning to develop anti-aging therapies. Others are pursuing a variety of other promising strategies, including the immunosuppressant rapamycin, sirtuin proteins, and ketone bodies, which are created by the body during fasting and exercise.

The path to immortality is not an easy one. Clinical trials are both lengthy and prone to disappointment. In the best of circumstances UNITY estimates it may be about a decade before their therapies are commercialized, and anti-aging therapies that work in animals are notorious for failing in humans. Moreover, nature has created a very tricky catch-22: Mechanisms that cause aging-related conditions often at the same time prevent terrible diseases. Senescent cells, for example, have been shown to be instrumental in both slowing the effects of aging, and in fighting cancer and helping wounds heal.

However, the payoff for a successful anti-aging therapy will likely be astronomical, and for investors looking to bet on the race to immortality, UNITY appears to have a smart strategy toward commercialization.

Innovators in Focus: Homecare

CareLinx Pioneers Homecare Matchmaking

Homecare just got a little easier, and more affordable. More innovation is on its way.

Studies show that 85% of older adults prefer to age in place in their own home, rather than move into senior living communities or assisted living. But families who are seeking homecare must navigate an often confusing array of choices. With over 12,000 agencies and 400,000 homecare practitioners in the U.S., the industry is highly fragmented, and care capabilities and quality of offerings vary substantially across providers. Families frequently resort to word of mouth, advertising, or high-cost agencies to find the services they need.

CareLinx is an innovative online matchmaking service seeking to make the selection, engagement, and management of home health care both easier and more affordable. On its slick and easy-to-use website, family members can fill out a brief profile describing care needs. CareLinx then matches the family with local caregivers.

But CareLinx does more than just matchmaking. The company also conducts caregiver background checks, manages schedules and payrolls, and provides $4 million insurance. Through its mobile apps monitor daily care activities to ensure proper care is provided.

With scale and online efficiency, the company boasts savings of up to 50% over similar services from brick and mortar agencies.

CareLinx now operates in 12,000 cities and offers a network of over 150,000 caregivers across the country. Recently, the company partnered with Lyft to enable families to order and monitor the progress of rides for their loved one receiving homecare.

CareLinx isn't alone in its quest to revolutionize how homecare is purchased and delivered. Competitor Hometeam, whose caregivers are all employees rather than contractors, has raised almost $45 million with backers including Oak HC/FT, Lux Capital, IA Ventures, Recruit Strategic Partners, and Kaiser Permanente Ventures. Other examples include startups like Honor and HomeHero.

Both the market opportunity and need are substantial in the $84 billion homecare industry, and demographics will be its ally in the next decade. As the massive boomer generation ages, innovators like CareLinx which empower older adults to receive care how and where they want will continue to thrive.

Age 50+ Market Strategies

How Advisers can Connect with What's Most Important in Clients' Lives

Life stage strategies can help financial advisers deepen client relationships and develop unique competitive advantages.

A financial adviser is getting ready to meet with two clients. On paper, they look almost identical. They are both male, age 58, married, employed, homeowners, and have about the same level of assets and income. However, the financial adviser is preparing for two very different conversations. Even though these two clients are the same age, the adviser knows they are in different stages of life, and therefore have distinct hopes, worries, financial priorities and need for guidance.

Marketers have long known the power of life stage marketing. The newly engaged are deluged with wedding magazines and advertisements. New parents are greeted — usually even before the baby is born — with a flurry of coupons and website ads selling everything from diapers to daycare. These marketers know that life stage transitions trigger newfound needs and create rare windows of opportunity to engage and win over customers.

How life stages impact financial plans

Changing life stages can also have profound financial implications, and clients who are about to enter a new life stage very often need to re-think their financial planning. A few examples include:

- Marriage. Almost a third of newlyweds know nothing about their spouse's long-term financial planning, and a quarter are surprised by their spouse's spending habits, according to a survey by Experian. Marriage can usher in many significant financial planning needs, from buying a home to planning for children. It also requires new dialogue as spouses learn how to develop a financial plan that addresses both their priorities.
- Parenthood. Parenthood is magical, but so are the costs. On average, it costs about $250,000 to raise a child, according to national studies conducted by the U.S. Department of Agriculture, and that doesn't even include college. Planning and saving early is often the key. While their children are learning their ABCs, parents are often learning a new lexicon of 529s and Roth IRAs.
- Empty nesting. When children move out, parents may grieve, but usually not for long. Eighty percent of empty nesting parents are busy planning their dream vacation, according to a survey by PulteGroup. Empty nesters may relocate, remodel, pursue new careers, take on new hobbies or accelerate retirement savings. But parents should take care when counting the chickens that left the nest: Boomerang kids are now a common phenomenon, and more than a third of millennials age 18 to 34 still live in their parents' homes, according to U.S. Census data.
- Grandparenthood. Compared to prior generations, today's grandparents are often far more engaged in the lives of their grandchildren, sharing new experiences, life lessons, wisdom and money. Sixty-two percent of grandparents provide some level of financial support for grandchildren, from paying for dance classes to contributing to college funds, according to a survey by MetLife.

Benefits of life stage strategies

Life stage strategies can help financial advisers not only grow their business, but also deepen client relationships. Integrating life stage insights and strategies can help financial advisers to:

- Develop smarter, more effective marketing. Life stage marketing is all about reaching the right customers with the right products at the right time. Targeted outreach, newsletters and educational seminars are just a few ways to find and connect with clients entering new life stages.
- Help clients navigate life challenges. Many clients entering a new life stage have a limited understanding of what changes and challenges await. By helping clients understand and anticipate these changes, financial advisers can build greater client satisfaction, deeper loyalty and more opportunities for referral.
- Create the best financial offerings. With a deep understanding of clients' life stages,

advisers can create the most appropriate financial plans to prepare for what's ahead. Moreover, by connecting with what is most important in their clients' lives, advisers are better positioned to focus on selling the offerings their clients value, instead of product features.

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