

# Redefining Traditional Notions of Aging

Embracing Longevity  
Across Cultures



Perry Wong, Belinda Chng, Amos Garcia, Arielle Burstein



MILKEN INSTITUTE

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The Milken Institute is a nonprofit, nonpartisan think tank determined to increase global prosperity by advancing collaborative solutions that widen access to capital, create jobs, and improve health. We do this through independent, data-driven research, action-oriented meetings, and meaningful policy initiatives.

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Across the globe, societies are seeing dramatic increases in the size of their aging populations. Life expectancy has risen to 80 years and above in much of the world. Fertility rates in many countries have fallen below the replacement rate of approximately 2.1 children per family. Improvements in healthcare and nutrition have compressed morbidity to a smaller share of a longer life.

Increasing longevity and extended health spans have given people the opportunity to remain productive in the workforce and active in their communities for more time. Longer and healthier lives are also changing how people define their aging experience, enlarging options beyond traditional notions of work and retirement and toward an experience defined by meaning and purpose.

While the longevity dividend has created opportunities that few could have imagined in generations past, urgent challenges must be addressed. Without significant shifts in policy, practice and culture, global aging will strain the solvency of governments, increasing public expenditures on health services and support and away from growth-focused investment spending. The looming costs of changing demography, driven by high life expectancies and low fertility rates, represent one of this century's greatest challenges. Globally, the number of people aged 60 and over is projected to leap from about 900 million today to more than 2 billion by 2050, according to the World Health Organization. The 80-plus cohort will almost quadruple and those 65 and over will outnumber children under the age of 14. At mid-century, the UN Population Division projects that 18.2 percent of Asia's population, or nearly 1 billion people, and 27.6 percent of Europe's population, or nearly 195 million people, are projected to be aged 65 and over.

Many institutions have not fully recognized, nor do they capitalize on, the talents and knowledge of older adults, their accumulated work experience, and the roles they can play in workplaces, families and communities. This

is due in large part to ageist attitudes that permeate many societies and institutions. Negative age biases, including hiring practices that favor the young, can lead to exclusion and isolation, damaging the mental and physical well-being of older adults and depressing the potential for future economic growth.

The vast implications of ageism warrant a society-wide reframing of traditional notions of aging to bridge the gap between current attitudes and behaviors and those needed to realize the upside of aging. This transformation will stimulate the development of age-friendly environments and institutions that harness the value of older adults and reduce the current state of pessimism that surrounds aging. Both the public and private sectors can drive this change. Readiness for aging will require investments in services to ensure healthy living and strong enabling environments to leverage the aging cohort's economic and social value.

This report highlights three case studies about how forward-looking institutions are responding. Though they represent different functions and cultures, all are intentional about embracing and enabling longevity as a positive resource. The studies demonstrate how national policy frameworks enable systemic shifts, how local governments utilize community resources and expertise to adapt to the needs of diverse neighborhoods, and how businesses mindful of future aging forces can retain the skills and knowledge of their changing workforces to extend productivity.

The Singapore case study demonstrates the scope and impact of enlightened government policies that provide the resources to enable healthy and productive life centered on family, community, and economic prosperity. While the Singapore model involves multiple programs and investments, perhaps the most significant action that government leaders have taken is to consistently reinforce the message that older members of society are valuable assets to workplaces, families and the nation at large.

The New York City case study highlights the power of communities to organize and respond to specific aging challenges. The uniqueness of New York City's program is that it utilizes the city's multifaceted local institutions, including community help centers, retirement homes, hospitals, universities, and employment resources, to form an integrated



## INTRODUCTION

web of providers for the aging cohort. The ultimate goal is to ensure the city is age-friendly and accessible, with a comprehensive spectrum of services available to its older population.

The BMW case study emphasizes the importance of corporate culture and leadership in recognizing the opportunities of longevity and intentionally building an enabling environment that amplifies the skills of its multigenerational workforce. This study highlights the importance of vision that appreciates the value of the accumulated skills and knowledge of older workers, and the determination to center production around human capital – the most valuable part of any economic enterprise.

The rapidly growing number of older adults presents an unprecedented challenge to societies around the world. A dramatic shift in policies and practices, and an adaptation of societal structures to enable healthy, productive and purposeful aging will change the view of life currently defined by education, work and retirement. With that shift, individuals will have the opportunity to redefine their aging experience and enjoy new opportunities and possibilities throughout their lives. Businesses will flourish as they realize the benefits of intergenerational workforces and capitalize on the experience and talent of older adults. Communities and people of all ages will benefit from the continued engagement and purposeful contributions of their aging populations.

By changing attitudes, building enabling environments and spreading and scaling best practices, societies across the world will change the future for the current generation of older adults, and for generations to come.

This report highlights important examples and advances, but just as important, we want it to stimulate new ideas and innovations, knowing the time is now to redefine traditional notions of aging, embrace longevity across cultures, and improve many lives in the process.

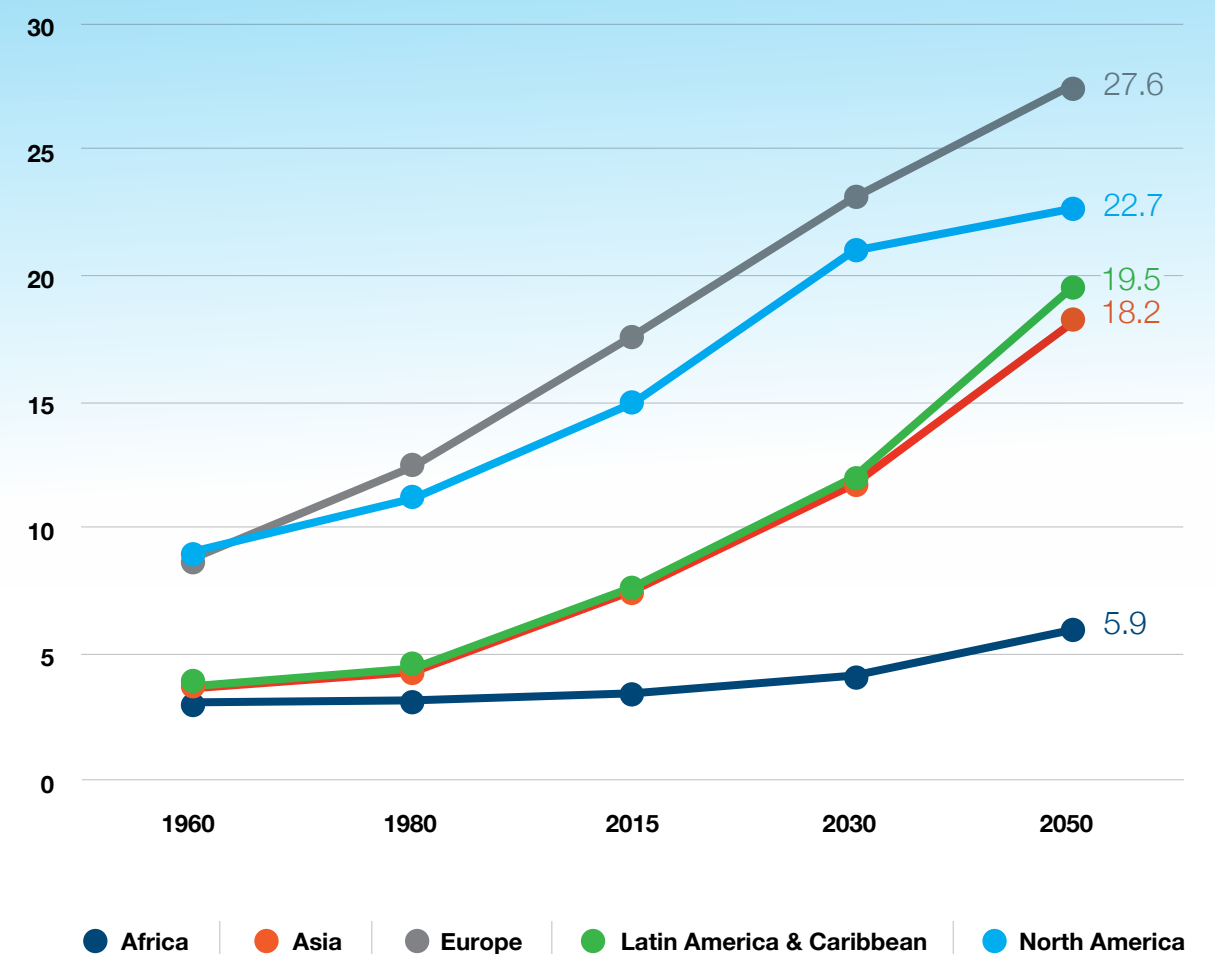
### Paul H. Irving

*Santa Monica, California*

# The World Is Aging

FIGURE 1

Elderly population as a percentage of total population



Source: United Nations Department of Economic and Social Affairs, Population Division, World Population Prospects, 2015.

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## About the Report

Much like climate change, population aging is a hidden global force with few discernable indicators of its impending social impacts. At the core of this aging phenomenon are two realities. First, people are living longer and morbidity is being compressed to a much later life stage. This has enabled people to remain healthier and active for longer periods of time. Second, longer and healthier lives open up new opportunities to pursue any number of activities at any stage of life, including work, volunteerism, and family and community involvement.

While the reality of aging is that it can bring about mental and physical decline that could burden individuals and societies, there are upsides to aging that must be considered in the context of shrinking workforces and increasing older populations. There is plenty of discussion about the negative aspects of aging, but we will shift our focus toward the less-discussed benefits of aging. We illustrate how older adults, those 65 years and older, can be positive agents for social and economic changes when public and private institutions partner with individuals and

communities to create an environment for a purposeful and healthy aging experience.

In this context, companies have the opportunity to retain their most skilled and knowledgeable older workers, delaying the onset of shrinking labor forces. Economies have the opportunity to tap into a longevity dividend – older workers' contribution of talents and knowledge, accumulated work experience, and the role they play in families and communities – that could support economic growth as overall population growth peaks. At the same time,

overcoming age-based biases, whether consciously or unconsciously, could reduce the exclusion of willing and able-bodied older adults from social participation and mitigate social isolation and its related diseases.

Responding to these challenges requires pragmatic and effective policies and programs to support and augment the abilities of older adults. Doing so will enable older adults to pursue meaningful and purposeful activities that would have positive impacts on their companies, communities, and families. Redefining life as a continuum of social engagements rather than distinct stages with distinct activities creates flexibility and opportunities for both individuals and communities.

The Milken Institute conducts research and organizes conferences and workshops on aging. This report is the first of a two-phase Aging project. Phase 1 examines the potentially large worldwide economic and social impacts of continuing demographic transitions, the harmful consequences of ageism for individuals and for communities, and benefits that could accrue from the longevity dividend. It presents three cases to highlight how institutions are creating enabling environments in which older

adults can be healthier, more active, and participatory. More importantly, these cases encourage institutions all over the world to identify and leverage their strengths to build a successful aging environment closely aligned to their values.

Phase 2 of the Aging project will focus on aging in Asia, exploring the cultural and contextual nuances that underpin the traditional notions of aging in specific Asian societies. It will examine how Asia's attitudes toward its older adults limit or exclude them from social participation, which lies contrary to the view that a purposeful aging experience is one in which older adults continue to positively contribute to society.

The objective of the second report will be to reconcile the mismatch between the desire of older adults to remain productive and current government policies and cultural attitudes that limit meaningful social inclusion. The goal will be to inform future discussions among institutional leaders, guide policy recommendations and encourage institutional transformation, transformation that will tap into and prolong healthy, meaningful, and purposeful lives.

# Context and Key Issues

## The Demographic Trends Shaping the Future

### THE GLOBAL CONTEXT

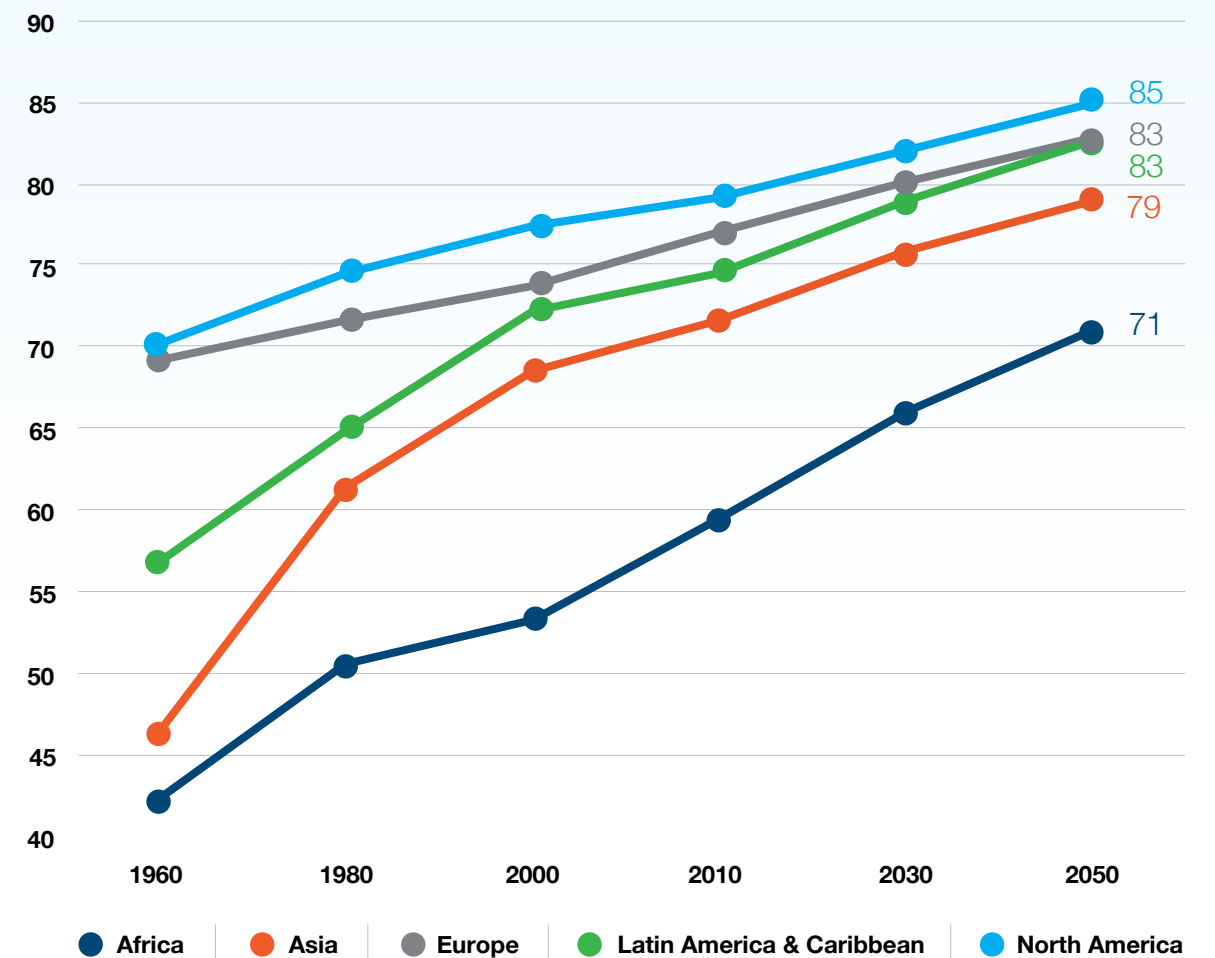
Two large demographic trends in aging are occurring globally. First, advanced economies are seeing an increasing percentage of their overall population becoming older as life expectancy continues to lengthen and fertility rates

steadily decline. Second, most emerging economies are seeing an increase in the total number of its elderly population. The concern is that the sheer number of elderly earning relatively low incomes with little pension, welfare, and institutional support

FIGURE 2

### Life is getting longer

Life expectancy in years (at birth)



Source: United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects, 2015. (Note: Life expectancy at birth; projections at medium variant.)

could impose a large debt burden on government budgets and place a heavy social and financial burden on families.

## EUROPE AND NORTH AMERICA

The world's most advanced economies have transitioned to aging population structures characterized by high life expectancies and low fertility rates. The fertility rate among Western and Northern European countries has fallen below the replacement rate of 2.1 children per female and has averaged 1.6 children per female since 2010. At the same time, life expectancy at birth rose to 80 years. Fertility rates in Canada and the United States also declined in the same time period and hover at 1.9 while life expectancy rose to about 80 years at birth.<sup>1</sup> Forecasted over the short and long term, persistent below-replacement rate fertility rates and increasing life expectancy will shrink the labor force, increase public expenditures on healthcare, pensions, and other social services, and could depress economic growth and productivity moving forward.

## ASIA

In no other region of the world is the simultaneous burden of low fertility rates and increasing life expectancies affecting population structures as it is in Asia, where the pace at which countries are aging is incredibly fast. It took 26 years for Japan and China's elderly population to increase from 7 percent to 14 percent. In contrast, it took the United States 69 years for its elderly population to increase from 7 percent to 14 percent, while France took 115 years.<sup>2,3</sup> Japan's elderly population accounts for 26.3 percent of its total

population, making it the oldest country in the world. By 2050, Japan's elderly will account for 36.3 percent of the population, slightly ahead of Korea (35.1 percent) and Singapore (33.9 percent). In absolute terms, Asia today has 330 million older adults compared to 129 million in Europe. In China, there are already 131 million older adults and by 2050, there will be an estimated 371 million elderly in China, constituting 27.6 percent of its population.<sup>4</sup> These trends could severely constrain the public purse and place undue burdens on social services if governments and communities are inadequately prepared.

The increase in life expectancy over time is a testament to human innovation and scientific discovery. The development of antibacterial drugs and vaccines, improved sanitation and hygiene, and clean water slowly pushed human longevity higher. Advancements in medical research and treatment, improved nutrition, and improved awareness of human physiology not only increased longevity but compressed morbidity – age-related illnesses that cause older adults to lose the ability to function independently. This has prolonged the number of productive years available to older adults and the physiological opportunity to lengthen social participation is increasing.

Falling fertility rates, in the meantime, are a result of a cultural shift away from family formation to career formation. Rising affluence and historically low levels of child mortality has decreased the need to bear children. In all high-income countries, women are more educated, more likely to enter the workforce, more likely to delay marriage and delay having their first child, and having fewer children than previous

generations. Many countries around the world do not provide an environment conducive to being both a mother and an employee.

## THE AGING CONCERN

These global demographic forces and social and cultural drivers are pushing aging populations, both in absolute and relative terms. This could cause large financial and social disruptions to countries and communities inadequately prepared for the inevitable swing in demographic structures. First, aging populations would require governments to increase the share of public expenditures for social welfare and pension systems. Publicly funded systems, like Social Security in the United States and, more generally, all pay-as-you-go systems, face financial deficits as the number of beneficiaries receiving pension payments increase while the number of taxpayers decrease.<sup>5</sup> Fully funded pension systems, while more sustainable, are highly sensitive to inflation and need time to develop<sup>6</sup> and those who haven't had adequate time to save would need support from their personal savings, their families, or the government.<sup>7</sup>

Second, an increasingly large elderly population could eventually mean higher healthcare costs that could land on the government. Among advanced economies, the elderly are more susceptible to the disease burden of non-communicable diseases, including cardiovascular disease, cancer, diabetes, and chronic respiratory disease, which cause an estimated 60 percent of all deaths and "nearly half of the loss of actual and effective life years due to disability and death."<sup>8</sup> With age being a compounding risk factor and cost

of treatment relatively high, governments will be required to pay for healthcare costs if their elderly are uninsured or lack the savings to pay for long-term treatment.

Third, persistently low fertility rates not only pushes up a population's age, it decreases the size of the labor force. Among high income countries, the working-age population is in a period of transition, either peaking recently or forecasted to start declining in the next five years.<sup>9</sup> China saw its working-age population shrink for the first time in history, by 3.45 million people in 2012,<sup>10</sup> and this trend will continue as a result of its decades-long one-child policy. Because future economic growth is dependent on both the size and productivity of the labor force, a shrinking labor force could depress future growth and make it more difficult for companies to find skilled workers.

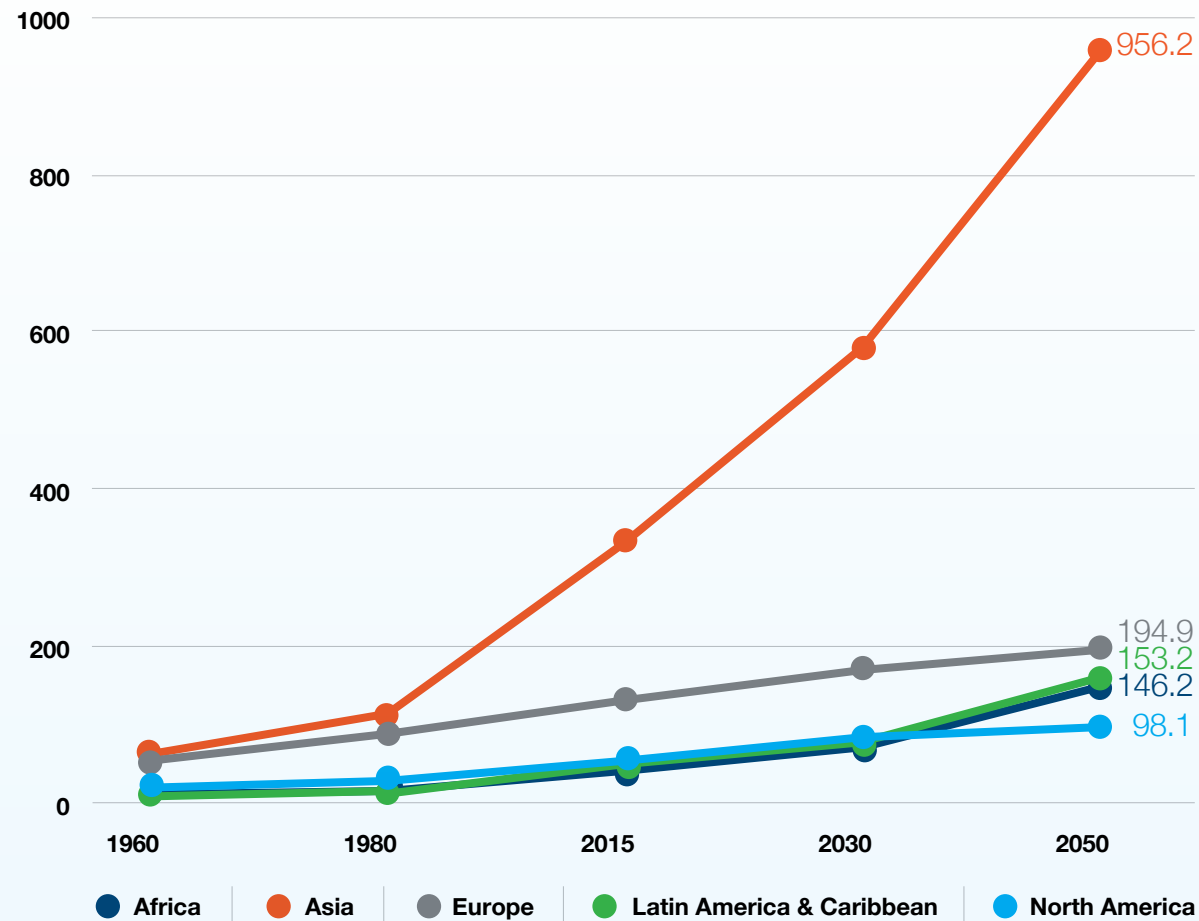
Finally, aging populations could decrease the economy's stock of wealth and reduce the amount of capital invested in growth-related spending.<sup>11</sup> When the workforce saves, financial institutions invest those savings back into productive sectors of the economy, unlocking capital to fund business expansion and growth. This, in turn, pushes up incomes and living standards, and as disposable income increases, so too does savings. Aging populations, on the other hand, draw down their savings, reducing the amount of capital for investment-related spending and depressing economic growth. Japan in 2014, for the first time since 1975, saw its net savings rate fall below zero, due in large part to a shrinking labor force that is saving less and spending more and a growing elderly population drawing down their savings.<sup>12</sup>



FIGURE 3

## Older people are increasing in number

Total elderly population, 65 years and above (millions)



Source: United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects, 2015. (Note: In millions; projection at medium variant.)

Thus far, the report has identified the potential financial and social impacts caused by aging populations if left unattended. Moving forward, countries, cities, and companies will have to transform the institutional culture in which older adults are involved. This will

require developing workplace policies to take advantage of the longevity dividend, working to reduce ageist attitudes that permeate throughout society, and building a better enabling environment so older adults remain healthy and active throughout their lives.

## Labor Force Participation and the Longevity Dividend

For most people, one's working career will constitute the bulk of one's life cycle. Workers are the creators, innovators, and producers of goods and services in the economy. They are also the consumers and savers, driving both short-term demand and long-term investment-led growth for businesses and governments.

But in the last 60 years, traditional labor force participation practices, specifically the retirement age, have failed to reflect that increasing longevity, prolonged healthier mental and physical abilities, and compressed morbidity have allowed older adults to remain active and productive for a longer share of their life cycle. In the United States, for example, when Social Security was introduced in 1935, the retirement age was set at 65 years, a time when individuals lived an average of 61.7 years. Since then, life expectancy has significantly increased to about 80 years, but the retirement age has only incrementally increased to 66 years old and individuals born in 1960 and later will see their retirement age raised by one year to 67.<sup>13, 14</sup>

The mismatch has been more dramatic in Asia. Although Japan and Korea made small increases in the mandatory retirement age in recent years, it remains far below the average life expectancy of about 80 years in both countries.

Rapid economic growth lifted the living standards of many Koreans, but only one third of older retired adults receive the basic pension amount of USD \$200 a month, an estimated one fourth of the amount required for living expenses for a single household.<sup>15</sup> As a result, 44 percent of Koreans aged 65 and over live under the nation's relative poverty line, defined by the

government as income below 50 percent of median income for the entire population. The OECD average for older adults living below the poverty line, in contrast, is 13 percent.<sup>16</sup>

In 2013, Japan raised the mandatory retirement age to 61, the first increase since 1998, when it was raised from 55 to 60. It will continue to raise the age by one year every three fiscal years until it reaches 65 in 2025 to give older Japanese the opportunity to stay in the labor force.<sup>17</sup> Japan's basic pension of about USD \$6,900 per year is 25 percent less than the annual living costs, driving some older adults without adequate savings to commit petty crimes to receive the free housing and food that jail sentences afford.<sup>18</sup> Those lucky enough to find work do so for financial security and to remain mentally and physically active.<sup>19</sup> With the simultaneous burden of an aging population and a large share of workers leaving the workforce, the government is seeking to tap this longevity dividend to minimize and delay the continued shrinking of its labor force.

Many emerging economies with relatively young populations often rely on this "demographic sweet spot" to spur economic growth. But for advanced and aging economies that are facing shrinking workforces, the policy options to replace highly skilled and knowledgeable retirees are limited. Simply finding jobs for the unemployed or increasing immigration cannot fill the gaps required in high-skilled industries and knowledge-heavy services sectors. Germany, for example, is facing this challenge as it struggles to fill highly-skilled manufacturing jobs, even as immigration levels into Germany remain among the world's highest.

Countries facing these challenges must create opportunities to tap into the longevity dividend of older adults who want to remain involved in the labor force. But the progress to better integrate older workers has been slow because governments and companies are wary about the physical and mental limitations of aging. Older workers, generally speaking, have less energy, are more prone to injury, and are more prone to age-related diseases. And with the fast pace of technological disruptions, older workers are less likely to adopt new technology, let alone spur the technological innovations that drive growth.

These are important and realistic concerns to consider when deciding on how best to utilize this longevity dividend in a way that is productive to companies and communities. But the reality is that older adults are not just living longer lives, they are also living healthier lives, both mentally and physically. Morbidity has been compressed to an increasingly shorter share of the life cycle, giving older adults the opportunity to remain socially and professionally engaged. There is also growing evidence that older working adults are better able to prolong high levels of productivity, motivation, and teachability. In the United States, for example, more productive workers tend to stay in the

labor force longer than less productive workers.<sup>20</sup> Data from manufacturing firms in the Netherlands shows that older workers still have the room to increase their own productivity.<sup>21</sup> And German firms that have implemented ergonomic workstations and intentionally built mixed-aged teams have been able to maintain or increase overall productivity.<sup>22</sup>

Tapping into the longevity dividend offers tremendous potential to spur economic growth, but to take advantage of this dividend means rethinking traditional notions of work and retirement. The first step is to shift away from viewing the life cycle in distinct stages: education, work, retirement. Rather, the life cycle should be viewed as a continuum, where the goal should focus less on traditional work and retirement practices and more on building an environment that better enables and empowers older workers to decide on the activities they want to be involved in at any age they desire.

The second step is to address the ageist attitudes throughout society and remove institutionalized ageism that continues to pervade the public psyche. The personal and professional barriers it puts up not only harms today's older adults, it also harms our future selves.

## Ageism and Its Consequences

At their core, ageist attitudes are characterized by the prejudicial attitudes toward the aging experience, toward growing older, and toward older adults. These attitudes transform into entry barriers into the labor force and other social activities, which can reduce the quality of life, personal dignity, and cause mental and physical harm.<sup>23</sup>

Ageist attitudes arise when societies highlight and focus more on the disabilities of older adults than on their abilities. Popular culture frequently portrays the elderly as slow, forgetful, and unteachable, out of touch with current culture and technological dinosaurs. This focus on their disabilities rather than on their potential assets has become the norm. Businesses tend to hire younger employees with the implicit assumption that their energy, vibrancy, and cultural knowledge will translate into higher productivity and output.

India, for example, concentrates its workforce development resources to train young employees and largely ignores retraining its older workers. Nor are businesses intentional about integrating older workers into human resources strategies or promoting intergenerational knowledge and skills transfers. In China, retirement ages remain unchanged despite increasing longevity. The labor force prematurely loses a large share of its workers as women are forced into premature retirement at the age of 50 or 55, a policy stuck in traditional gender roles.<sup>24</sup>

Granted, there are industries and sectors within the economy in which a younger workforce is tremendously beneficial for growth. This is especially true in places like Silicon Valley, the global bastion for

young budding technology engineers and entrepreneurs, and this is reflected in the age profiles of the most prominent technology companies: The average age is 30 at Google, 28 at Facebook, 29 at LinkedIn, and 31 at Apple. Their creative ideas and the abilities to build new products and provide new services have boosted innovation, efficiency, and economic growth.<sup>25</sup>

However, in general, wider social gerontophobia, consciously or subconsciously, causes psychological harm, promotes hostile working environments, and results in a negative aging experience for older working adults. The internalization of ageist attitudes today, more often than not, become the self-stereotypes of tomorrow.<sup>26</sup> Prolonged exposure to ageist attitudes has been shown to increase the risk of memory loss; adults who had greater exposure to age-based discrimination scored worse on memory exercises than older adults who had not been exposed to ageism.<sup>27</sup> Prolonged exposure has also been shown to increase the risk of Alzheimer's disease because the stress from discriminatory attitudes could cause a greater build-up of amyloid plaques and protein strands between brain cells as compared to individuals who had not been exposed.<sup>28</sup> Older workers who lose their jobs in later life stages are three times more likely to be at risk for stroke.<sup>29</sup> Older adults who held a more negative view of their aging experience lived an average of 7.5 years shorter than those with a positive view, due in part to their lower "will to live"<sup>30</sup>. Finally, recovery from illness and injury is likely to happen more slowly among older adults with a negative view of their aging experience.<sup>31</sup>

The longevity dividend offers aging populations a large opportunity to plug workforce shortages if businesses build an environment that augments the skills and knowledge of older workers instead of focusing on generalized mental and physical limitations. To disrupt traditional

notions of aging is to overcome the prominent ageist attitudes against older adults in today's social and professional environments and work toward creating environments that enable productive and purposeful lives.

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## Disrupting Aging: Toward a New Normal

To disrupt the traditional notions of aging<sup>32</sup> means to first acknowledge that older workers can be at a disadvantage in today's social and professional environments, both in terms of the physical space and mental atmosphere. Age does cause physical and mental ailments that decrease one's capabilities, but as numerous case studies have shown, this can be overcome by adapting the environment to be more enabling and age-friendly.

The disruption of traditional norms of aging requires reducing ageism. These prejudicial attitudes are harmful to older adults and harmful to our future selves. It focuses on the physical and mental limitations and financial burdens this cohort imposes on the wider community. But tremendous scientific progress has been made. No longer should the life cycle be divided into distinct stages of education, employment, and retirement. Rather, this extension of healthy life will change the behavior of individuals and the types of activities they pursue at any given point in their lives.

The disruption of traditional norms of aging, finally, requires creating environments that enable "active aging," where individuals have the information, resources, and access to any number of social and professional opportunities. This responsibility falls on all institutions to build enabling and age-friendly environments to address the physical and cognitive limitations of older workers and capitalize on their skills and knowledge. For businesses, this requires adapting to the health needs of older workers through ideas such as ergonomic workspaces, schedule flexibility, and mixed-age teams. For governments, this means reconsidering raising or even eliminating mandatory retirement ages and working to reduce institutionalized ageism.

Doing all this will unlock the growth that the longevity dividend has to offer and will improve the overall aging experience for older adults, opening opportunities for them to pursue healthy, productive, and purposeful aging experiences.



# Case Studies

## Building the Enabling Environment

Hiding in plain sight are examples of older adults forgoing traditional retirement experiences and seeking more meaningful, active social engagements. In specific cases, they are enjoying the longevity dividend, the social and economic benefits that accrue from the talents, knowledge, and accumulated work experience of older adults. This has great potential to plug the economic and social gaps brought on by aging populations.

The second half of this report highlights the efforts of three institutions that are redefining the aging experience for older adults. The case studies detail how these institutions recognized the value of older adults to society and how their respective institutional cultures informed the design and implementation of their policies and programs. Leaders and decision-makers had to determine the feasibility of the programs and their contribution to building the aging environment. A review of these policies and programs will provide a better understanding of culturally relevant aging policies and will inform the discussion

for how institutions around the world can promote successful aging environments reflective of each culture.

The government of Singapore, the city of New York, and BMW have vastly different institutional cultures, but in all three cases, forward-thinking leaders designed and implemented policies reflective of the institution's abilities and strengths. The Singapore case study demonstrates how clear and consistent reminders of the value of individuals complemented by government policies can move the social structures toward better capturing the rewards from family, community, and economic engagement. The New York case study demonstrates the opposite; it focused on a bottom-up approach, acknowledging that grassroots organizations and local institutions were much better positioned to identify and meet the needs of the city's older residents. Finally, the BMW case study demonstrates how innovative private sector leaders can simultaneously tackle social challenges and maintain overall productivity.

## Singapore

### THE CONTEXT

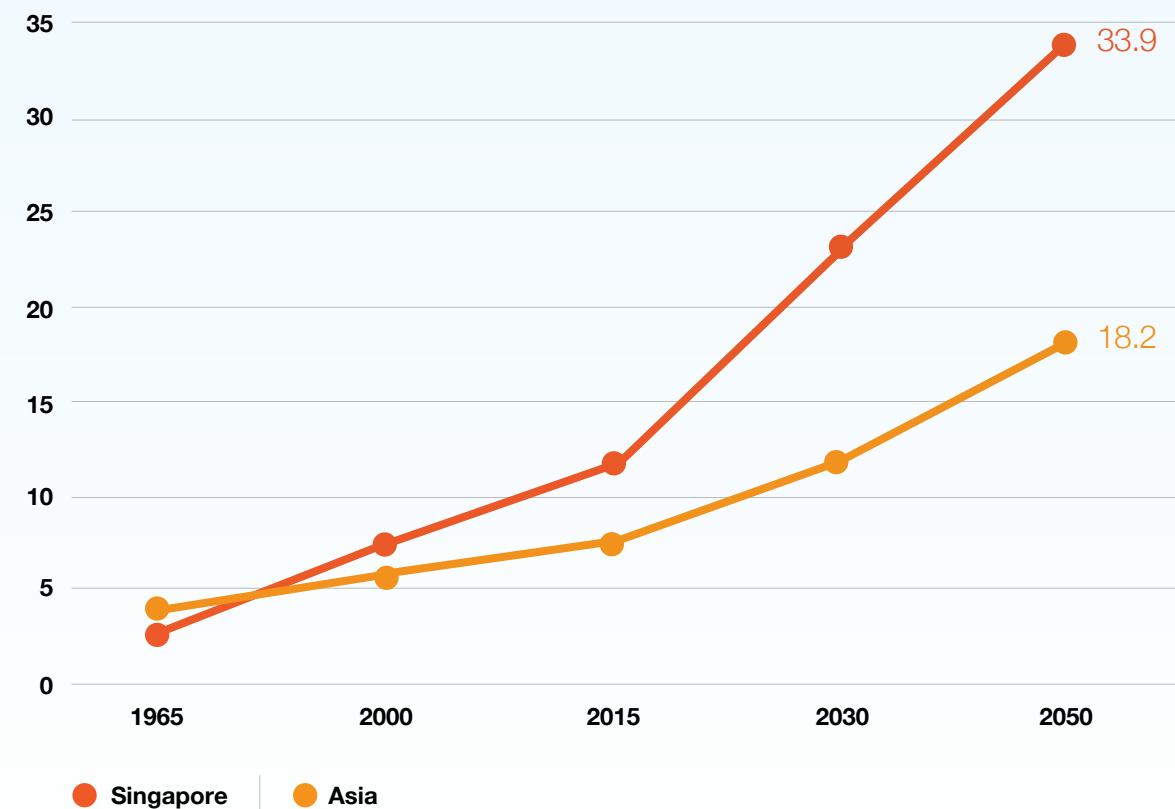
The Government of Singapore, governed by the People's Action Party since independence in 1965, has been lauded for the anticipatory and pragmatic nature of its public policies. From its beginnings as a British-administered

colonial shipping and trading outpost, the government successfully managed domestic industrialization and liberalized its business environment to create a globally competitive financial, high-tech manufacturing, and research hub in

FIGURE 4

### Rapid aging in Singapore

Share of population age 65 and over



Source: United Nations (2015) Department of Economic and Social Affairs, Population Division, World Population Prospects, 2015. (Note: Projections at medium variant.)



Southeast Asia, attracting over 7,000 multinational companies to operate within its borders.<sup>33</sup>

But rapid economic growth was not without its social drawbacks. The rapid pace of Singapore's development left many of its "pioneer generation" without adequate pension savings as economic growth and inflation pushed up the cost of living. It also shifted the social psyche away from building families and toward building careers. Fertility rates plummeted from over five children per woman at independence to about 1.2 children per woman today,<sup>34</sup> one of the lowest of any country in the world. At the same time average life expectancy in Singapore rose from 64.1 years in the 1960s to 80.4 today.<sup>35</sup> As a result, in the last 50 years Singapore has experienced aging at an incredibly rapid pace; it will take an estimated 19 years for the share of its population aged 65 and above to double from 7 percent to 14 percent, much faster than its Asian Tiger counterparts (Japan took 26 years) and other advanced Western countries (the United States took about 69 years, while France took 115 years).<sup>36, 37</sup>

Singapore, like most other highly industrialized economies, finds itself in a sensitive situation: How should it respond to these demographic trends that have been historically unfriendly to economic growth and government expenditures? These trends are being felt in the labor force, where the percentage of workers aged 50 and above grew from 24 percent in 2006 to 34 percent in 2015 and where the median age of workers has increased from 40 to 43 years in the same time period.<sup>38</sup> Workers are also remaining in the labor force longer. In 2006, 25.3 percent of

Singaporeans between the ages of 65 and 69 were in the labor force, rising to 42.2 percent by 2015.<sup>39</sup>

### A GUIDING SOCIAL PHILOSOPHY

In his opening remarks at the Reinventing Retirement, Asia Conference in 2009, Singapore Prime Minister Lee Hsien Loong remarked that natural demographic trends toward aging populations will require governments and communities to "work out new family, workplace, and community arrangements that are economically and socially sustainable, to enable every individual to enjoy a productive, dignified life into his senior years."<sup>40</sup>

At the core of his message was a social philosophy rooted in Singapore's historically Confucian consciousness in which individuals exist in social units, the primary and most important of which is the family, followed by social communities (one's neighborhood or workplace). Individuals, therefore, are primarily responsible to keep their respective social units (i.e., their family members) safe, healthy, and growing. The government has made it clear it would support, but never supplant these responsibilities.

This philosophy has guided policies and programs since the government first responded to aging concerns in its 1984 "Report of the Committee on the Problems of the Aged." Early in this effort, the government sought to minimize negative age-based attitudes and promote the deference to the elderly that Confucianism upheld.<sup>41</sup> Its 1999 "Inter-ministerial Committee Report on the Ageing Population" continued the efforts to redefine social attitudes toward the elderly,

highlighting the value of older adults in families and communities, building a strong physical environment, and ensuring its citizens are ready and confident in their aging experiences.<sup>42</sup>

More recently, the government has sharpened its aging plan for the country. Its message centers on building an environment that enables all citizens to "age with dignity and remain involved in society,<sup>43</sup> . . . live happy, fulfilling, and enjoyable lives,<sup>44</sup> . . . [and] grow older with confidence."<sup>45</sup> Under this sweeping vision, the government's leadership has placed the responsibility on its own ministries and agencies to design and implement policies and programs in line with this message. This includes ensuring financial stability in old age, providing information, resources, and services, education and health promotion, facilitating mobility, and providing affordable housing. Even so, the government has made it clear that it would be the responsibility of individuals to take advantage of these programs and build their own individual aging experiences.

### EMPOWERING THE INDIVIDUAL

By ensuring individuals had access to resources and information to best build an aging experience that suits their needs, the government was, by extension, also ensuring a financially stable and a well-functioning society of the future. Its programs and initiatives for individuals focus on two areas: financial security and physical and mental well-being. To ensure financial security, the government in 1955 legislated the Central Provident Fund (CPF), a mandatory defined-contribution pension fund that places the responsibility for retirement savings jointly on the

individual and one's employers. Built into the CPF account was the Medisave account and Medishield Life insurance that allows individuals to pay for personal medical costs and those of their family members, ensuring a stock of personal savings in the event of an emergency or long-term medical costs.<sup>46</sup> Savings in the Ordinary Account of one's CPF funds can also be used to purchase homes,<sup>47</sup> though the government encourages citizens to wait until marriage to do so and to buy within their means so as not to deplete the funds in their Ordinary Account.

Life-long productivity throughout one's career has been the core pillar on which the government has implemented programs. Its new flagship program, SkillsFuture, provides an apt framework of productivity throughout one's life: "to provide Singaporeans with the opportunities to develop their fullest potential throughout life, regardless of their starting points."<sup>48</sup> By seeing life as a continuum in which individuals are constantly growing in their careers, the government has stepped in to support professional development by providing or subsidizing educational programs, skills trainings courses, career planning, and leadership and personal development.<sup>49</sup> These programs support individuals in their careers and enable them to remain productive to their companies and to the economy well into their later years.

### PRIMACY OF THE FAMILY

"Singapore depends on the strength and influence of the family," Lee Kuan Yew wrote in his memoir.<sup>50</sup> The centrality of the family unit is a key aspect of the city-state's social philosophy of stability

and principled growth. Filial piety, or the obligation to look after one's parents in later stages of life, is a constant presence in the lives of maturing Singaporeans and is the cornerstone in the government's efforts to promote "aging in place," that is, aging in a familiar environment with a supportive intergenerational family unit in close proximity to one another.

This responsibility falls on the government's Housing Development Board, the builders, managers, and allocators of Singapore's public housing units. Strict eligibility requirements to even apply for a home and a fixed number of units released yearly results in many individuals and couples not being granted housing. However, preferential treatment is given married couples who want to move into new estates with their parents or into estates in close proximity to their parents' home. Likewise, the Senior Priority Scheme gives advantages to the elderly who wish to move into new flats in the same housing estate as their married children or their parents, within two kilometers of their current home.<sup>51</sup> The hope is that bringing families closer together would result in stronger familial bonds to support individual members, especially in the later stages of their lives.

The government, however, has not been fully successful in promoting this structure of family support. Its principled and well-intentioned policies are clashing against a society-wide cultural shift in which the highly competitive working environment is causing younger Singaporeans to forgo family-building for career development. This shouldn't come as a surprise;

large metropolitan cities in high-income countries are seeing similar trends.

Congruent to this decline in family formation is a decline in younger Singaporeans' willingness to provide financial and emotional support to parents, so much so that the government passed the Maintenance of Parents Act in 1995, which allowed parents over the age of 60 to receive court authorization to legally obligate their children to provide financial support, further reinforcing the family unit as the primary caregivers to its elderly members.<sup>52</sup> Yet in 2015, a survey of 102 older Singaporeans found that about 35 percent rated their mental well-being as poor or very poor, characterized by mobility constraints, financial difficulties, and few social interactions. A number of those respondents stated that the "family as the first line of support" was not reflective of the realities of Singaporean families.<sup>53</sup>

#### A SUPPORTIVE GOVERNMENT

The government's role in building an age-friendly environment includes two other important pillars: first, it provides world-class healthcare and second, it implements policies to reduce the mismatch between abilities and retirement age. Singapore's well-integrated and highly efficient network of neighborhood clinics and large hospitals ensure that its citizens have access to high quality, low-cost healthcare services. Aging can cause a variety of physical and mental ailments, many of which require medical procedures and medications to alleviate. Through its education and awareness campaigns, the government has encouraged its citizens to take responsibility for their health early

on to mitigate and delay the onset of age-related diseases. This gives individuals the opportunity to remain healthy, active, and independent for a longer period of time and provides the economy with a continuing stock of productive workers.<sup>54</sup> Not forgetting the generation of people who built Singapore from its beginnings, the government launched the Pioneer Package exclusively for Singapore's aging cohort born on or before December 31, 1949, which offers financial subsidies of up to 50 percent off for outpatient care,<sup>55</sup> allowing them to remain connected and active through community activities.

Not only is this important in providing medical care to older adults, the government encourages all citizens to seek preventative healthcare services and shift away from a culture still dominated by curative care. While the government doesn't require regular mental or physical examinations, the healthcare system is built to provide any number of services to those who seek it out, including preventative healthcare screenings, senior day care facilities and home care services, counseling services,<sup>56</sup> financial assistance for long-term care needs,<sup>57</sup> and rehabilitation centers.<sup>58</sup>

The second pillar of government support is in aligning the skills, knowledge, and health of today's older workers with appropriate retirement ages. In a speech at the World Cities Summit, Singapore's Deputy Prime Minister Tharman Shanmugaratnam suggested that the retirement age be done away with completely at some point, saying, "older folks are an asset. They have wisdom, experience and they also learn on the job. We have to make this [integration

of older workers] part and parcel of the workplace."<sup>59</sup> This certainly sets the right tone for the future direction of Singapore's aging workforce, one that more closely aligns the positive aspects of the realities of aging with concrete retirement policies.

When the government fixed its minimum retirement age at 62 in 1993, average life expectancy for Singaporeans was about 75 years at birth. Today, life expectancy is about 82 years while the retirement age has remained the same. But in being more cognizant of the abilities of older adults and seeing them as assets, the government will require businesses to extend, or re-employ, older adults up to five years by 2017.<sup>60</sup>

With the economy facing a labor shortage, tapping into the longevity dividend would be a boost to companies and the economy. As such, the increase in re-employment age up to 67 will allow companies to retain the skillset of knowledgeable older workers and enable them to remain productive members of society. It provides an opportunity for older workers who feel that leaving the workforce at 62 is premature to remain active in the workforce.

The government of Singapore embarked on an ambitious plan to build an environment that would provide all its citizens with the opportunity to remain active and productive. Though recent social pushbacks and ever-present demographic pressures remain challenging, pragmatic policies are moving social structures in an encouraging direction and will better empower older adults to capture the rewards from their continued social participation.

# New York City

## THE CONTEXT

New York City, a global financial hub and a top destination for young professionals from all corners of the globe is home to 8.5 million people. The city boasts a rich diversity of people, a vibrant cultural landscape, a competitive business environment, and a strong entrepreneurial ethos that pushes innovation in all industries.

The city is also home to an aging population. There were an estimated 1.1 million older adults in the city in 2014, or about 13 percent of the city's population.

This is projected to increase to 15.6 percent by 2040.<sup>61</sup> Life expectancy in the city averages 80.9 years, about two years higher than the national average,<sup>62</sup> and by 2030, senior citizens aged 60 and up will outnumber school-aged children.<sup>63</sup> The median age of the city's workforce increased by two years to 45.2 between 2003 and 2012. In the same time period, the percentage of employees aged 55 and above increased from 15 percent to 23 percent.<sup>64</sup>

However, the number of elderly living in poverty and social isolation is growing. While national poverty rates as defined

by the U.S. Census Bureau for the elderly fell from an average 12.8 percent to 9.5 percent between 1990 and 2012, rates for New York City increased from 16.5 percent to 19.1 percent in the same time period.<sup>65</sup> The median annual income for native-born older adults is estimated at \$18,300 and for older immigrant residents at \$9,900.<sup>66</sup>

The city has a strong history of responding to the needs of its elderly population. It established the William Hodson Community Center in 1943, the country's first senior center, and one of the country's first Department for Aging in 1968.<sup>67</sup> True to this culture, in 2007 the New York City's Mayor's Office under the leadership of Michael Bloomberg, the City Council, and the New York Academic of Medicine began a city-wide campaign to improve the physical infrastructure, services, and resource availability for elderly residents. In 2010, New York City became the first U.S. city to join the World Health Organization's Global Network of Age-Friendly Cities.

came Age-friendly NYC initiative, a collection of 10 areas targeting the aging experience in all professional and social spheres. They include the Age-friendly Neighborhood Initiative, Age-friendly Ambassadors, Aging Improvement Districts, Age Smart Employer Awards, Age-friendly Business, Age-friendly Schools, College and Universities, Age-friendly Technology, Age-friendly Professions, Disaster Preparedness and Response, and the City Government's 59 Initiatives.

The city let its social institutions – businesses, community associations, non-profit groups, educational institutions, religious organizations – take the lead in building an age-friendly city, but contributed to the project in two important ways. First, it facilitated public-private partnerships between city authorities, private businesses, and grassroots organizations, providing access to information, arranging meetings with older residents, and providing funding for research and programs.

Second, it facilitated knowledge-sharing of best practices from around the city and throughout the country, connecting like-minded individuals and companies in similar sectors, and highlighting successful age-friendly workplaces and environments. By being an implementing partner and resources hub, the city was able to support the grassroots efforts to build age-friendly environments throughout the city's workplaces and neighborhoods.

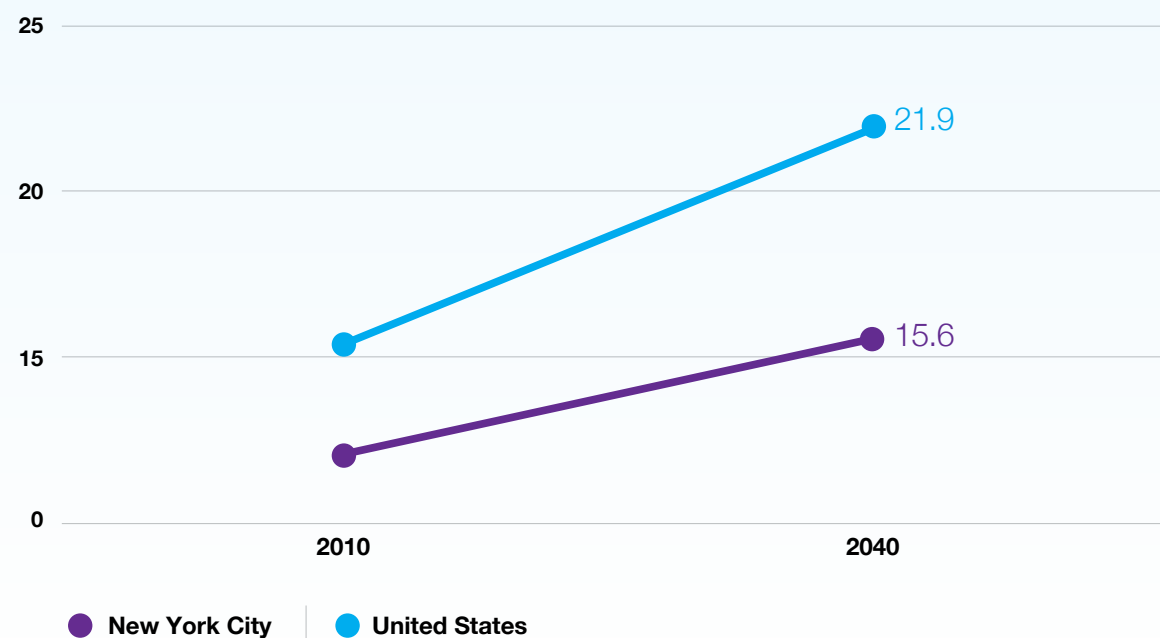
## LEVERAGING INSTITUTIONAL EXPERTISE

The city realized that city-wide changes needed to start at the grassroots level.

FIGURE 5

## New York City is younger than U.S. average

Share of population above the age of 65



Source: City of New York and United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects, 2015. (Note: Projections at medium variant.)

## AGE-FRIENDLY NYC

When Mayor Michael Bloomberg announced the city's plans to create an age-friendly city, he didn't place the entire responsibility on the city's Department of Aging or his other agencies. Instead, he instructed all of the city's agencies and departments to intentionally build their existing programs around the needs of older adults. Thus, while he provided the broad framework for the direction of aging, he let New York City do what New York City does best: innovate. The city's goal was simple; promote active aging, improve the quality of life, increase social participation, improve security, and enable independence. Out of the city's planning and conversations with older residents

This model enabled the city to leverage the expertise of local institutions and implement programs that were both aligned with the city's age-friendly goals and sensitive to the cultural, social, and economic diversity of the city's five boroughs.

The Age-friendly Neighborhoods initiative, for example, typifies the partnership between the city and local institutions. The city provided a simple four-step process to design the short and long-term projects each community would eventually implement: consultation with the elderly, partnership with local organizations, program design and implementation, and feedback and sharing of outcomes to the public.<sup>68</sup>

The diversity among the city's five boroughs meant that no two plans would look the same. Instead, local organizations took the lead in teasing out the specific needs of its communities. Older residents in Harlem, for example, wanted cleaner streets and more green spaces. They wanted local businesses, like grocery stores, to transform the physical environment to be more supportive of the physical challenges of older customers. They wanted easier access to resources and information about better nutrition, healthy eating, and elderly rights on housing and business matters. In Queens, home to a large Chinese immigrant population, older adults wanted multi-lingual signs in stores and at bus and train stations and multi-lingual healthcare and business resources.<sup>69</sup> An estimated 65 percent of New York City's elderly immigrant population have limited English proficiency, making it hard for them to

find information, resources, and support services for older residents.<sup>70</sup>

The city's most prominent plans for implementation were its 59 Initiatives, which were designed to address the four main areas of social engagement: community and civic participation, housing, public spaces and transportation, and health and social services. These initiatives touched on every aspect of social engagement, including providing employment assistance, finding intergenerational volunteer activities, finding affordable housing and long-term care services, and subsidizing health and fitness programs.<sup>71</sup>

One particular point of concern among New York City's older residents was remaining employed, both for financial security and social engagement. The city's Department of Aging (DFTA) reached out to the employment agency Workforce1 Career Center to provide computer classes and skills training, partnered with the American Association of Retired Persons (AARP) to help with job placement, and worked with the City University of New York (CUNY) to offer continuing education classes. To support older adults with shorter work histories, the city worked alongside the Center for Economic Opportunity and Human Resources Administration to identify and enroll older residents in a program to provide work opportunities that would allow them to be eligible for Social Security.<sup>72</sup>

#### KNOWLEDGE SHARING

The second pillar focuses on recognizing the efforts and outcomes of businesses intentionally building age-friendly

environments. First, the city's Compendium of Age-smart Strategies and Practices serves as a resource guide for companies who want to modify their workplaces to better support the needs of an older workforce. It provides relevant research on the physiological and psychological aspects of aging, expert recommendations on building the environment, and highlights case studies. The primary goal of the Compendium wasn't to push businesses to hire more older workers or to keep the ones it already employed. Rather, its goal was to align the overarching goals of the businesses – reducing unwanted turnover, improving employee performance, reducing healthcare costs, promote greater engagement<sup>73</sup> – with an array of workplace-specific programs to improve the overall working experience for all employees at every stage of their careers.

The Marriott hotel chain, for example, highlights the importance and benefits of workplace programs that give employees a greater sense of ownership over their work, the direction of their careers, and the ability to learn and grow in new responsibilities. While these programs were designed for all staff members, they were especially pertinent for its older workforce – 18 percent of the Marriott's American workforce is aged 55 years and older – because it allowed them to rotate between responsibilities, minimizing their time on more physically-demanding jobs. These programs proved successful in increasing the overall satisfaction of employees and winning the company the award for Best Companies for Hourly Workers.<sup>74</sup>

Second, the Age Smart Employer Awards identifies companies that intentionally provide employees with the programs and work environments to continue being

productive members at any stage of their careers. Among the 2015 winners was Brooks Brothers, America's oldest and highly respected high-end clothing manufacturer. Its garment factory on Long Island employs about 222 workers with an average of 30 years of service and more than half of whom are aged 55 and above.<sup>75</sup>

The award recognized the company's values of recognizing and better enabling the experience, loyalty, and the skillset of its workers. It did so in three ways. First, supervisors were intentional about placing workers in responsibilities that best suited their abilities. This meant if productivity fell for someone on the production line, supervisors would move them to custom tailoring. Second, supervisors were intentional about building ergonomic workspaces that reduced the physical stress on bodies, allowing workers to focus more on their work. Third, supervisors were intentional in fostering a family-like atmosphere by valuing the cultural and personal diversity of its employees; all supervisors speak a second language because of the multilingual workforce, allowing them to better engage with employees.<sup>76, 77</sup>

New York City's growing aging population and labor force required the city to respond to changes it knew would inevitably impact its communities. Thus, it championed the efforts of grassroots organizations throughout the city and supported the initiative through knowledge sharing to create more age-friendly communities. Far from taking on the responsibility itself, the city lent itself as an implementing partner to many of the city's organizations so as to concisely meet the needs of older adults through the city's diverse communities.



# BMW

## THE CONTEXT

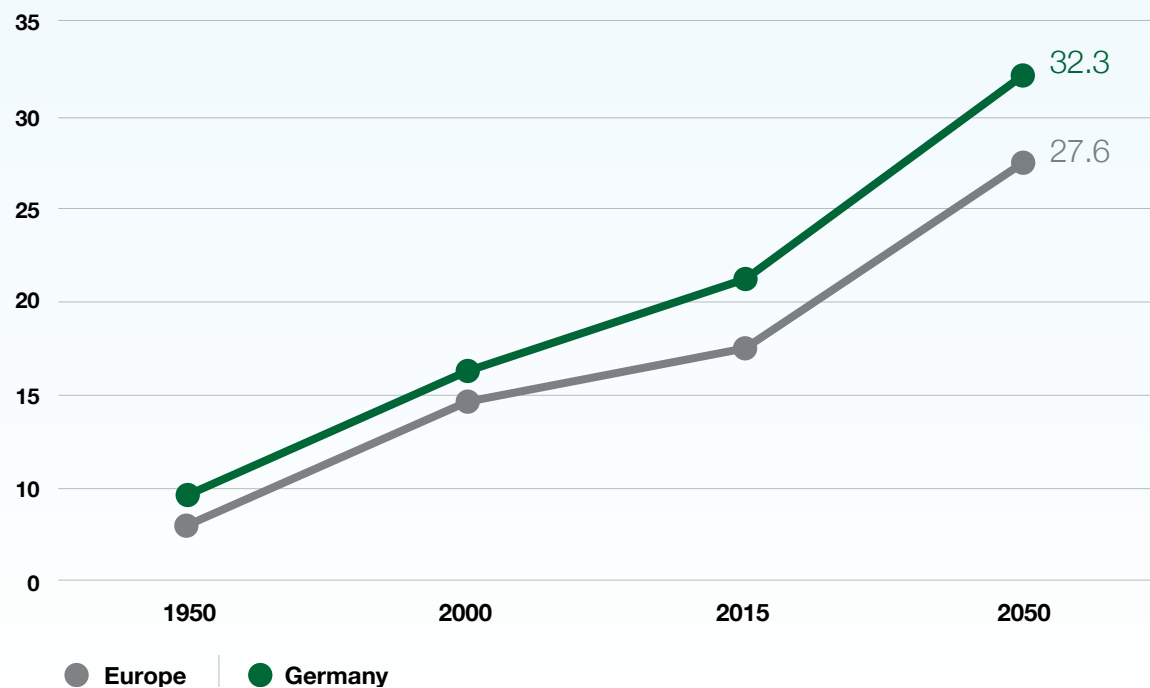
Of the many global companies that have been intentional about implementing age-friendly working environments, the case study of Bayerische Motoren Werke AG, or BMW, is one that stands above its peers. Its innovative and pioneering programs to create an enabling work environment not just for its older employees, but for its entire eventual aging workforce, have been pioneering in leading the industry for how businesses can holistically respond to both the short-term and long-term needs of an aging labor force.

BMW was not responding only to demographic changes within the company. Germany is aging. Its elderly population is expected to grow to 28 percent by 2030, up from 16.2 percent in 2000.<sup>78</sup> At the same time, the overall population is set to decline from its peak of 82 million in 2002 to 74.5 million by 2050, even with the current inflow of immigrants and asylum seekers.<sup>79</sup> The village of Ottenstein in northern Germany, for example, almost closed its only school because of low enrollment.<sup>80</sup> The German Chamber of Commerce reports that the country lacks an estimated 400,000 skilled workers for

FIGURE 6

## Germany is older than Europe

Share of population above the age of 65



Source: United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects, 2015.

its manufacturing industries.<sup>81</sup> And BMW estimated the average age of its workers will rise to 47 by 2017, up from 39 in 2010.<sup>82</sup>

BMW, like many high-skilled and labor intensive German manufacturers, found itself in a bind. While older workers have the experience, knowledge, and skills needed on the production line, age, inevitably, resulted in diminished flexibility, strength, energy, and vision, traits important to the precision engineering and manufacturing on which BMW prides itself. With a daily output of more than 1,200 cars, an unmodified production line was inevitably bound to rub up against the physical challenges of aging workers.<sup>83</sup>

## THE EXPERIMENT

This aging population placed pressure on BMW to find innovation solutions that would address the aging and shrinking labor force and the impending skills gap that would be left when its seasoned engineers, machinists, and other high-skilled professionals retired. The solutions to plugging this gap were not as simple as hiring new workers; they possessed neither the skills nor knowledge to step up where seasoned workers had stepped down.

In 2007, when BMW's management team at the company's Dingolfing production facility realized this nation-wide demographic trend would inevitably reflect in the company's own labor force, they implemented a program that was the opposite of what most manufacturing companies would do: They intentionally put older workers together on the line to see if they could maintain a high level of productivity. Dubbed the "2017 line," BMW brought together a production team of 42

workers with an average age of 47, the projected average age of its workers by 2017, and set them to work.<sup>84</sup>

The results came as a surprise to many. While it was expected that the quality of the work performed by the older workers would be better than their younger counterparts, the fact they did it as fast as younger lines was both surprising and encouraging. Not only did the 2017 line do a better job, they did it faster, increasing productivity by 7 percent. Absenteeism dropped from 7 percent to 2 percent. The number of assembly defects fell to zero. Workers felt they maintained higher levels of energy throughout the day. All this only cost BMW \$50,000 for one-off production line modifications.<sup>85, 86</sup>

There is a long list of reasons as to why this experiment at the Dingolfing production facility was a success, but at the core of the program was BMW's driving philosophy: BMW cars embody the highly skilled craftsmanship of its workers, and therefore are a reflection of the company's global brand and reputation. Around this framework, BMW built two intentionally complementary and equally important initiatives: an enabling physical environment and an age-neutral, communal, supportive, and purposeful mental environment.

## BUILDING AROUND THE WORKER

BMW prides itself in building quality cars, an impossibility without its highly-skilled engineers, machinists, and assembly workers. Through this pioneering production line, the Dingolfing team not only confirmed that its older workers matched and outperformed younger

workers on quality and quantity, it confirmed the importance of an enabling production environment around the worker. Dingolfing's team didn't just put its older workers on a line; they built a production line that intentionally facilitated the labor intensive work and reduced the chances of injury. The team knew that aging didn't necessarily mean its workers lost their manufacturing knowledge and skills, though without a suitable working environment it most certainly meant slower output and increased risk of injury.

They implemented 70 simple, yet highly impactful changes to the production line, focusing on improving the ergonomics of the tools and the workspace. These included barbershop chairs that were more comfortable, provided better support, and were adjustable for both sitting and standing positions. Workers were provided orthopedic footwear to reduce the strain on joints and muscles and wooden flooring was installed to be softer on the knees and to reduce static electricity discharges. Tables and monitors were retrofitted to be adjustable in height and easily moveable, bringing the tools closer to workers. Job rotation reduced the concentration of physical stress on certain areas of the body and physiotherapists were on hand to stretch out muscles and build strength to reduce the risk of physical injury. Hoisting cranes, magnifying lenses, larger typeface on screens and components, and large-grip handle tools all reduced the physical strain on workers' bodies, freeing up workers to do what they do best: build great cars.<sup>87</sup>

BMW's pioneering 2017 line redefined traditional notions of how manufacturing plants responded to aging workers. The team realized that the time and money required to hire more young workers, to train them, and to place them on the production line was not a smart business strategy for BMW, both as a matter of pride in its cars and pride in its machinists and technicians. Rather, it placed its highly-skilled worker at the center of the production process, around which it built an enabling environment that protected and strengthened the worker.

#### OWNERSHIP AND COMMUNITY

An enabling physical environment was only half of Dingolfing's successful production line story. The management team knew that workers who were transferred to the 2017 line, as well as other older workers in the plant, needed to feel just as valued and as part of the BMW family as other employees. The emotional connection to the company, the feeling of belonging, and sense of purpose derived from their work played just an important role, if not more so, in keeping them motivated and productive.

Naturally, there was resistance to the idea of the 2017 line. Older workers felt that their productivity would decrease if they stepped out of their current roles while younger workers felt their output would suffer working alongside older engineers. Some didn't think they could trust the work of the elderly while others mocked the idea of a "pensioners' line," calling into question the management's decision.<sup>88</sup>

To allay this initial opposition, the Dingolfing management team worked directly on the ground; they met with the Workers Council, talked one-on-one with its workers to discuss the project, organized workshops to gather information about challenges and solutions, and encouraged constant feedback about the work experience and environment through a messaging board, where workers decided among themselves which action items to prioritize for the management team. This constant communication and quick response built trust between managers and workers and gave them a greater sense of ownership in their work and in the future of BMW, an important mental connection to the company and their role within it.<sup>89</sup> This connection was further solidified when the management team handed the responsibility to build the workplace over to the line members. While the management team did bring in the ergonomics, health, safety, and engineering specialists, it was the production team that worked alongside the specialists to design and build their own workstations.<sup>90</sup>

Managers were also intentional about promoting more age-neutral language around the facility. Initially called "the project to aid the elderly," the initiative was quickly renamed and simply known as the 2017 line. When younger workers laughed at the required daily calisthenics, several members from the management team joined the daily stretching exercises, and soon other non-line members made this program a part of their daily routine.<sup>91</sup>

Above all, the management's message to its workers was a simple one: "We need your experience and skills to pull this off. It's important for the future of this plant. Our jobs are at stake."<sup>92</sup> A global survey of managers and employees found that non-financial incentives, specifically "praise and commendation for one's work, attention from leaders, and opportunities to lead projects," were more effective at motivating employees than financial incentives.<sup>93</sup> Building loyalty, trust, engagement, and community have been shown to tremendously improve motivation, productivity, loyalty, and self-determination.<sup>94</sup> People want the freedom to control the direction of their work, want the resources and opportunities to sharpen their skills in a space that fosters mastery and progress, and want to feel a sense of purpose, connecting to a larger cause and seeing the fruits of their labor in the larger community.<sup>95</sup> BMW provided their workers with all of that.

BMW's 2017 line succeeded because it solidified these mental connections and provided an enabling physical environment to its workers. It did so because it prioritized the high-skilled craftsmanship of its workforce, particularly its seasoned workers, as the core of its successful business strategy. BMW proved that the private sector can transform its workplace without having to wait for the government to address the country's aging and shrinking labor force. And in doing so, it successfully accomplished the goals it set out for itself: to maintain output and productivity with highly skilled workers reflective of the demographic composition of its future workforce.

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## Concluding Remarks

Old age can bring about mental and physical decline, but advancements in nutrition, medical science, and technology have simultaneously compressed morbidity to a much later stage of life and increased life expectancy. Given the global trends toward aging populations, this cohort of healthier older adults could fill the gaps in the labor force. It allows older adults to remain active for a longer period of time, extending their participation in meaningful and purposeful activities.

This report is not about mandating changes in employment practices for companies to hire or retain older workers nor for governments to require older workers to work more years.

Instead, this report serves as an important reminder that the longevity dividend and its corresponding social benefits and economic activity can and will be an opportunity for future growth if institutions actively create an enabling environment around older adults. This pool of talent,

knowledge, and work experience could boost growth while their continued social involvement could delay the onset of age-related and loneliness-related diseases.

It also serves as a resource to further the discussion of how businesses can be more intentional about readying successful age-friendly environments. This report outlines forward-thinking policies and programs that seek to support the abilities of older adults. The government of Singapore implements pragmatic

policies that provides resources, programs, and services that enable its citizens to lead healthy, productive lives, positively impacting their families, communities, and the economy. The city of New York partners with the knowledge and expertise of local institutions in their respective communities to provide a network of service and support. BMW actively and intentionally retains high-skilled technicians by building a production line that augments the abilities of older workers, allowing them to remain on the production line for as long as they wish and are able. In these three case studies, this report finds clear evidence that there are effective policies to foster an environment for healthier, purposeful, and productive living among aging individuals, even as they vary across cultures and institutions.

In these three case studies, agenda-setting and program implementation fully leverages the advantages of each institution's orientation and strength, social organization, and perhaps most importantly, cultural setting. For BMW, a long tradition of placing a high value on its skilled labor and craftsmanship and its traditional close partnership between management and the workers union fosters

a strong platform that enables a highly effective way to capture the economic value of elder workers. In Singapore's case, the strong influence of the public sector and the effective management and supervision from government enables the implementation of ambitious policies designed to transform an environment that will promote healthy and purposeful living for the elderly. The NYC case study is in contrast to Singapore's. Its programs reflect the city's multifaceted and multicultural heritage. The rich local-level grassroots supports institutions situated in various neighborhoods to provide effective services to the elderly.

Redefining the traditional notions of the life cycle and viewing it as a continuum opens up large opportunities to preserve talent, knowledge, and experience, and offers a wide spectrum of social activities to older adults. This flexibility promotes positive and beneficial social and economic inclusion and improves the quality of life of today and tomorrow's aging cohort. These are the tremendous upsides to aging, providing a life full of meaning and purpose.

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