

The Economic Consequences of an Aging Workforce

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Abstract

Between the years of 2002 and 2017, the number of older workers (ages 65 and over) in America's labor force increased by 57%. In Europe, this same age group has grown from 4.4% to 7% since only 2007. Financial professionals and demographers have both warned the private sector, as well as governments, of their concern over the aging workforce. The consequences could reduce economic productivity, constrain innovation, and slow economic expansion. It is also noted that people normally leave employment at a quicker pace as they get older, making them less likely to later become reemployed. The current issue makes note of these factors and ccposb initiatives to better inform both members of the workforce and those in charge of creating policy. What belongs to the workforce are new expectations? What needs to be known by employers, professions, and jobs adapting with growing frequency? What is the policy needed for the increasing numbers of individuals choosing to work past retirement? There are also special challenges needing to be addressed, including recurrent labor market shifts that have elderly workers exiting lifelong jobs in search of new, less physically intense forms of work. Policymakers at the national level must confront even broader challenges. The essay will explore the economic implications of a workforce that is growing older. Its primary focus is Western societies, with a secondary concentration on the United States and, to a lesser degree, Europe. The paper will begin by outlining the demographics of these societies. The possible scenario is examined with projections of the probable future. The second part addressed the consequences of such an age structure of the workforce, both as they influence the macroeconomy and in more selected industrial branches. The consequences of an older workforce are examined for employers,

specifically rising labor costs, changing labor force quality, and a possible increasing shortage of labor. The strategies available to individual companies in anticipation of such developments are discussed. Finally, the possible ways employers' associations, governments, and labor unions might address the workforce aging are considered. In the case of the latter two, it is attempted to draw from the Japanese experience to offer some selective suggestions for national policies.

Keywords aging workforce, economic productivity, labor market, workforce demographics, policy implications, labor costs, innovation constraints, employment strategies.

2. Introduction

The economic consequences of an aging workforce are a growing concern in many developed economies with demographic developments fostering a further increase in life expectancy and a decline in birth rates since the mid-1960s. The latest data suggest that the EU member states in general are evolving towards a very old population structure, with the old-age dependency ratio falling to just below 2 in 2050 — similar to Japan. As this is partly a consequence of current developments, the analysis is especially relevant and timely. Given its complexity, aging is seen as important for many distinct, albeit interacting, reasons. As a result, it is important to consider how changing demographic trends shape labor markets and economic policies (Calvo-Sotomayor et al., 2020). After setting the stage, the overall objective is to provide a detailed description of the aspects of the demographic transition, its causes, and its consequences. This involves transforming several distinct demographic, macroeconomic, and labor market dimensions into a sequence of episodes linked by a unifying theme. These episodes aim at focusing on various aspects of various problem types and at dissecting a few critical issues in detail. They range from comparatively general equilibrium effects of the demographic transition on the world economy regime to specific issues on capital accumulation and consumption of the aged at the national level. The hope is that this essay will provide an overview of the complexity and interdependence of very important, yet difficult to grasp, medium-run economic changes (Boersch-Supan, 1970).

As the number of older individuals in the U.S. labor market continues to increase, companies and employees must prepare for potential challenges and opportunities. The aim of this essay is threefold: (1) to consider how the labor market entry of the Baby Boomers expanded the economy, narrowed wage inequality, and increased white-collar employment; (2) to analyze how government, employers, and employees can address the challenges and opportunities an aging workforce presents, including productivity, healthcare spending, and age discrimination; and (3) to consider the far-reaching implications of a reversal in the long-standing relationship between the age composition of the labor market and the distribution of earnings. (Su et al., 2022)

This paper is framed by three questions. First, what was the economic role of the age distribution of the U.S. labor market in the second half of the 20th century? The Baby Boom generation, born 1946-1964, swelled the population and official working age cohort upon labor market entry, but the response of the U.S. economy was not typical. Specifically, the entry of the Boomers was a manifestation of a secular trend in which older individuals were becoming less attached to the labor market. A central argument is that the unusually strong entry of the Boomers into the labor market raised the ratio of experienced to non-experienced workers. Since more experienced workers have comparatively higher productivity, this shifted the aggregate production frontier outward at a rate not seen since.). In addition, the increase in the ratio of experienced workers drove down the experienced worker wage premium.). This second consequence was an unintended consequence of government regulations that increased the relative cost of employing experienced white-collar workers. These unintended consequences also contributed to the expansion of the white-collar segment of the workforce.

3. Demographic Trends and Aging Workforce

The dominant demographic trend in industrial countries is that of an aging population (Boersch-Supan, 1970). The life expectancy of a person who has reached pensionable age has increased by an average of two and a half years per decade since the beginning of the 19th century. The fact that people in most industrial countries take early

retirement attracts more attention to concerns about the negative consequences for social security systems. Population projections until 2035 suggest that, up to the end of the first third of the current century, the population will grow very slowly. This development is attributable simultaneously to the fall in birth rates, especially after the end of the 1960s, and to the persistently low number of children. German unification and the exodus of several hundred thousand younger people from the new Laender furthered this development. As a result, the number of people of working age will shrink in almost all of the new Laender as well as in decisive parts of eastern Germany over the coming decades.

The analysis of this essay is based on microsimulations of an adaptation of the population model for the Federal Republic of Germany. The consequences of changes in age and sex composition for the growth of domestic production and for the labor market are examined. The repercussions on the social security community, measured by the net entry rates and by the capital indices of various non-contributory and contributory components, are likewise explored. Finally, the rather different regional consequences of such demographic change demonstrate that regional labor markets will primarily be affected by this evolution. The growing divergence in demographic trends among different regions of the Federal Republic of Germany reflects concerns that East German regional policy will be hampered. Therefore, both regional and countrywide economic development needs to be analyzed in depth due to the complex interrelations between such demographic and economic rate-development.

The phenomenon of an aging workforce is an important aspect of the broader demographic trends that have emerged in recent decades. This section aims at a better understanding of the scope and implications of these trends by providing a short analysis of the available data and surveying the relevant research evidence. It shows that increasing life expectancy is combined with declining birth rates and that both trends will be augmented in the coming years. (Vaupel et al.2021)

The global life expectancy at birth rose from 47.5 years in the 1950s to 65 years in the new millennium. For the new decade, corresponding projections are higher than 70

years. At the same time, worldwide the total fertility rate fell by half; in the long run, the number of births is thus predicted to shrink, whereas the number of elderly, both in absolute numbers and in relation to the working-age population, will expand vigorously. These trends will have profound effects on labor markets as well as on overall economic productivity.

The observed demographic changes vary significantly across regions as well as across industrial sectors. Over the next years, many countries will face greater problems, due to numerical as well as to sectoral changes, and it is of importance that businesses, as well as training institutions and welfare organizations, will adapt their policies to meet these challenges. Some studies already trace the broader demographic trends and try to assess their likely consequences. By analyzing the recent developments and the historical migration processes, focusing in particular on Germany and Japan, and by providing future demographic forecasts, this issue also intends to stimulate the debate and to raise the awareness of the urgency of strategic planning regarding the expected shifts in the size and in the structure of the labor force considering the age factor.

4. Challenges Faced by Employers

Employers face a number of economic, policy and practice challenges in adapting to an ageing workforce in the context of population ageing and longer working lives. One key issue concerns skill shortages created as older employees retire, and younger workers are either not available in the desired quantity or lack the necessary experience. In recent years, policy-makers in both Anglo-Saxon and Continental European countries have become concerned with understanding and managing the likely economic consequences of changes in age distributions in the workforce and have initiated a range of policy responses. Some of the most difficult challenges for employers are in flexible adaptation of workplace policies to accommodate older employees (Egdell et al., 2020). Commonly considered issues involve reductions in the physical and cognitive capacities of the workforce with age, although there are many other ways in which demographic change might affect workplace practices and workers (older or otherwise). Most accounts suggest that traditional workplace policy is based around the 'standard

worker' model, that is, the healthy full-time male career worker, and that demographic change requires a shift in workplace practices and policies. There is a growing literature on the changing dynamics of the workplace and its implications for recruitment, training and retention strategies. Employment relationships are said to be more short-term, which alters the balance of investments by workers and employers in job-specific skills. In many industries, there has also been a hollowing out of well-paid skilled manual jobs, which complicates the school-to-work transition, and a growth in low-paid, low-skilled jobs, many of which are in the service sector. Moreover, the share of knowledge-based work in the economy has increased, which is said to require cooperative, multi-skilled work practices, in contrast to the more hierarchical and specialized practices attributed to 'offsetting' 'old economy' processes. As such, there are both opportunities and risks associated with demographic change. For example, research in European countries has shown that at a team or workplace level there are both positive and negative consequences of age diversity, as it can enhance both team learning and risk aversion in teams of skilled and unskilled workers. Additionally, a study shows an increasing number of age discrimination cases, and some are particularly striking cases of hiring discrimination. Broadly, employers are encouraged to reflect on their own business practices to explore 'hidden' forms of age discrimination and think creatively about how they might behave differently. Central to all of these issues, is the default nature of hiring and management practices, which often reproduce certain (age-related) inequalities simply because of the lack of reflection on how things might be done otherwise. The implication is that a proactive approach is necessary for these practices in favor of the individual employer.

The aging workforce is a concern worldwide, with significant implications. However, the adverse effects have been shown to be inconsistent, indicating that countries can manage and accommodate this demographic trend in different ways. The few studies on this topic in Singapore suggest that organizations are not adequately prepared for an aging workforce. This offers an overview of the key issues and potential challenges faced

by Singaporean organizations and employers due to their increasingly older workforce. (Tams, 2022)

A key concern when it comes to aging workforce in Singapore is labor shortages due to an aging society and workforce. Other important challenges include skill shortages or mismatches due to rapid technological advancements and labor market changes, as well as increased healthcare costs. Employers find it increasingly difficult to retain their older employees, who may wish to continue working for less hours, in order to spend more time with their families. Employers are also reportedly seeking more flexible working arrangements. Aside from these external measures, employers are encouraged to investigate age-inclusive practices such as equitable job appraisal, work-life initiatives, recruiting programs for women coming back to work, and intergenerational bonding events.

An aging workforce has become a concern on various levels due to various economic consequences. While employers are said to be aware that Singapore has an aging workforce, this does not necessarily mean that they adjust their hiring/HR policies accordingly. Employers generally think that older workers can still do the job; however, it is at the same time important for many of them to be able to attract younger talent to their workforce. With an aging workforce, there is an increasing concern among employers about losing institutional knowledge (Egdell et al., 2020)

5. Impact on Social Security and Pension Systems

There is a stream of powerful perspectives that claim that social security and pension systems, faced with increasing financial strains due to longer life expectancies and larger masses of retirees, will have difficulty incorporating such demographic developments and that the detrimental consequences of such failures will be not only (further) financial problems of the systems but will also hamper the economic contributions of older workers and obstruct the sustainability of systems of social benefits to an increasing old population. As a result, debate on the future of social security and pension systems has, once again, become timely and heated. In this paper, the consequences of changes in demographic structure for labor market developments and

social security funding are analyzed using simulations for a set of European countries. In the context of this analysis, discussion is offered on possible societal responses to the tensions arising for labor markets and social security from demographic shifts. Formulation of appropriate responses, it is argued, requires that the interrelations between labor market dynamics and social protection funding are taken into account.

Against the backdrop of the concerns expressed of burgeoning financial pressures on social security and pension systems, the focus on consequences of demographic changes has fallen largely on the effect of an aging population on a pay-as-you-go system of social benefits, in particular the potential imbalance between contributions and potential outlays to (older) beneficiaries. Labor markets, however, are both a source of funding to the systems and an instrumental for trying to reduce the pressures on social security systems. Due to the dual impact of demographic shifts on both the supply and demand sides of the market, the consequences of aging population for labor markets themselves are, however, complex as well as site- and time-specific. Unraveling the channels through which demographics influence labor market developments and posting a coherent picture of actual or potential dynamics is, therefore, difficult. Starting nevertheless, understanding the demographics-labor-social security connections is a necessary element of broader impact assessment and a proper extension of the debate about societal responses (Debroux, 2016).

The increasing average age of populations in America, Europe and Japan is creating demographic shifts that have far reaching economic consequences. The percentage of people aged 65 and older is increasing as the proportion of people aged 15-64 (considered the working age) is decreasing. This means that the ratio of people who are retired to people who are working is increasing. For example, by 2040 the ratio in America is projected to be 2:1. These changes are straining social security programs and pension systems. Because current workers are subsidizing entitlement programs for retirees, this changing demographic trend will necessitate that a larger share of publicly-generated funds will need to be spent on social benefits, many of which go to households who may not actually be in financial need. Without structural reforms, these

programs are unsustainable and could exacerbate deficits and crowding out. Despite this, government spending on social benefits in America remains the smallest share of GDP compared to Europe and Japan. As more government resources are allocated to supporting the elderly, there is less government money available to be invested in creating new jobs and in services that support the younger workforce. (Pilleron et al.2021)

As populations age and people live longer, pension systems must adapt to remain fiscally sound. Life expectancy in America and Japan has increased from 70.0 and 78.7 in 1960 to 79.3 and 84.1 in 2015 respectively. A longer lifespan means that workers will draw from social security and pension funds for a greater period of time. The current pay-as-you-go pension model was conceived when it was assumed that most contributors would retire at 65 and then die soon thereafter. A new system must be designed to increase contributions relative to benefits or decrease benefits relative to contributions, although both options can exacerbate inequality. Government spending on pensions and social benefits in terms of GDP will also exceed the average between 2019-2025. In line with an increase in average age and life expectancy, working populations should be expanding; contributing such that the ratio of retirees to workers decreases. Japan and America are clear exceptions to this trend. A long time series reveals how Japan has had an increasing percentage of individuals aged 65 and older since at least 1973. America has also seen an accumulating share of older individuals since the 2008 crisis. These changes serve as a prelude for problems to ensue in both social security and retirement systems. As young people are entering the workforce less frequently and delaying the retirement process, while old people are retiring more frequently and approaching retirement at younger ages, the same economically inactive group is growing in terms of percentages.

6. Productivity and Innovation

One eyewitness consequence of aging societies in the working world is the process of ageing workforces. With people living longer – and requiring to work longer because of changes in pension legislation – it becomes possible to see the emergence of three, or

even four multi-generational workplaces. How workers of different age groups interact and support each other in their life-long learning becomes of particular interest to meet both their own needs and those of the economy. In the context of the knowledge economy, competition is not based on the ability to control natural resources or access to capital. It turns increasingly on ideas, innovation & competitiveness. People are at the centre of creativity and innovation, & the emphasis is on human capital. It is hence crucial to invest in the creation & accumulation of human capital at both individual & collective levels.

The economic discourse on older workers has changed from viewing older workers as a problem group with declining functional capacities requiring early exit and training only to keep up with new technology, to a more positive view of them as valuable assets continuing to deliver high quality performance (Slowey & Zubrzycki, 2018). Data collected from training managers, HR managers and older workers themselves highlights a changing landscape of age related issues, challenges and solutions in the context of the emerging multi-generational workplaces. Older workers (in particular in the 55+ age bracket) find it difficult to keep up with technology as well as to adjust to new work processes. They believe that age barriers, prejudices and stereotypes violate their rights and de-motivate them from pursuing vocational training. In terms of productivity, older workers appear to deliver work performance as good as their younger colleagues. The availability of training opportunities can help in ensuring workers are not treated unfairly based on their age. Employers recognize that older workers are highly skilled, experienced and can still deliver high quality performance. With regard to vocational training, a balance needs to be found between recognising the functional capacities of older workers and providing them with relevant support and special conditions to ensure that their performance remains as optimal as possible. Professional life-long training is seen as the single most effective measure to fight ageism. The age barrier, as seen by the employers, is mostly related to the minimum of 3-5 years of experience that a worker should have when applying for a job.

The experience and knowledge base of older workers can benefit an organization's productivity levels. This research suggests that older workers have a positive and gendered contribution to the productivity and commitment outcomes of organisations. Both workers and managers argue that training and development that go beyond legal requirements will help older workers retain skills longer, making them more likely to progress to higher levels or across industry, and increasing their employability in the longer term. This is likely attributable to managers being more attuned to the leadership, negotiation and problem solving skills that older workers often possess naturally and which are overlooked in favour of more easily learned technical skills in younger employees. On the other hand, there are concerns regarding ongoing training and the adaptability of older workers to new practices, including strategic, technical, cultural and policy shifts. (Chen et al.2022)

A key issue for managers is judging the appropriate balance between leveraging the experience of workers who have committed to long term career focus and up-skilling younger employees to increase their future contribution, thus encouraging thematic innovation. In addition to individual perceptions and practices, age diversity within teams is suggested to have an impact on creativity and problem solving ability. Four out of the five organisations involved in this study had either attempted to use age diversity to support generationally focused approaches to marketing or the management of particular types of clients, or had noted that intervention from this research had made them more considerate of the make-up of particular product development teams. This research has suggested that a wider range of ages in teams can lead to more rounded problem solving, with younger members focusing on current trends and future technologies, and older members being able to predict market demand or possible future outcomes based on previous experience.

These findings chime with the wider literature, suggesting an important role for an age diverse workplace in fostering innovation. When these findings are projected on the broader economy, there are implications for overall growth of this research given the limited resources of industries within this sector, and the considerable number of SMEs

that fall within it. Unlike previous analysis of the impact of ageing on organisations, which has tended to focus on very large employers, this research supports consideration of age management as an industry specific concern. There is an imperative for organisations to diversify their offering and train staff to operate multiple roles to ensure that there is always a qualified person to maximise potential income for very big firms. Conversely, there is an encouragement to develop a niche offering and to engage non-standard workers at lower wages to cover low skilled roles where staff losses are anticipated. The conclusion that can be tentatively drawn, is that it is important for workplaces to work towards a shared culture of empowerment and to ensure that all staff members, regardless of age, feel valued and developed. This has the potential to both enhance, or at least preserve, productivity despite skill and worker losses, and ensure that future workforce demands can be more easily met.

7. Strategies for Managing an Aging Workforce

The findings on policy and practice suggest that government and employers alike need to adopt specific, actionable strategies which can manage and support the diverse needs of an ageing workforce. Age neutral attitudes towards the needs of older workers and the most vulnerable groups of older workers as well as the least sustainable jobs persist despite the fact that on average older workers have higher than average sickness absence records. In addition, in line with previous research, the study finds that the concerns of older workers regarding working conditions are similarly dismissed by managers (Egdell et al., 2020). The actions taken by older workers have been predominantly individual rather than organisation-wide changes by employers focusing on the health of the employee rather than changes in working conditions.

Given the identified lack of or inappropriate response to a range of work place factors affecting older workers' employment sustainability, a number of actionable suggestions are made by this research. Firstly, there is a need for the government and employers alike to increase their awareness, knowledge and recognition of the changes that would ameliorate the hardest felt burdens caused by physical demands and poor working conditions. This could be achieved either through employer willingness to act on the

issue or through government action which would push private employers into changing their working practices. Furthermore, there is a need to pay attention to how policy measures addressing the removal of older workers have been off-set by employers' indifference or unwillingness to invest in creating better conditions for the least sustainable older workers and jobs. On a practical level, the research highlights a need to bring employers, employees and policy makers together to discuss a range of feasible and practicable actions which could be taken to support older workers.

If older adults were going back to work for economic reasons it would lead to an increase in the labor force with matching jobs being created. This way any negative consequences would be limited. Hence, it is important to ask how this will impact economic development in countries facing especially rapid changes in the age structure of the workforce. (Abraham et al., 2022)

Managers are advised to adopt age management practices and worker representatives want "More training programs for the aging workforce. For example retraining to facilitate skill development, adaptation to new technologies". The main vulnerability older workers faced came from their inability to acquire new skills or adapt to new technologies, and that objectives of age management policies should be focused on the workforce adaptation. The employment of older workers is expected to remain older workers' primary perspective. It is vital during the process of economic development, demographic changes, and the restructuring of the welfare state that makes it difficult for the aging workforce to acquire new skills and adapt to new technologies. Therefore, technological change is placing an entire subset of the population at risk in the labor market. As a result of the latest neoliberal public policies, the labor market is more flexible and there is a decline in job security. Consequently, the long term unemployment rate is increasing and young people's possibility to get a permanent job is constantly being delayed. Further to the research on the aging workforce it was found that older workers are a major part of the general unemployed population. To be precise, there is a tendency for unemployment rates to be higher at older ages. Even though most employers acknowledge the necessity of the long term growth of

productivity in order to be competitive, the aging workforce, as it was found, is less able to promote increases in productivity. On average, absences in workplaces is another factor that is negatively correlated with older workers. Another factor is that is negatively correlated with older workers seems to be the decrease in the employment of the female labor force over 50 years old. In other words, women over 50 who are unemployed face serious problems in getting reconsidered in the labor market. This is possibly due to the fact that discrimination is doubled; as they are not only women but also old. Unemployment, low remuneration for young people is also related to a specific decline perceived not only by the employers but also among the employees themselves, in the possibilities that older people have to work and develop new skills, to adapt to new technologies, to increase flexibility, and openness to acquire new knowledge. What is more, as the focus group research with the worker representatives shows, small firms offer lack of opportunities for the training of the aging workforce. Balancing the labor force between skilled and unskilled, experienced and inexperienced, in favor of the second, suggests the inadequacies of firms for their aging workforce. The employment of older worker's main perspective from the employees was mainly the retraining programs for older workers. These training programs were described as those that were expected to help the aging workforce adapt to new job prospects and changes. This suggests the need for implementing policies that can address easier pathways for older workers to adapt to changes in the work organization and skills requirements. Hence, the results of the study support the ideas of worker representatives and managers and give an explicit policy recommendation note in supporting older employees that are crucial for creating efficient and successful age management policies.

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