

Ageing in Post-Industrial Society: Trends and Trajectories

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Abstract

This paper aims at examining a global question on the power of population ageing in the 21st century, particularly the degree to which population ageing is gradually becoming a real challenge to many geographical regions of the world. The global ageing issues are critically analyzed by illustrating valuable scientific inputs including statistical data. A holistic approach has been utilized to understand and resolve the complexities of future ageing society. Finally, suggestions are made on the basis of social and economic implications globally.

Keywords: *global ageing, trends, trajectories, post-industrial society.*

Introduction

The challenges posed by welfare in post-industrial society need to be set within the global context of the demographic changes, the stories by which people live, and the flow of people, technology, money, and ideologies around the world (McDaniel and Zimmer 2013; Phillipson 2013; Powell and Khan 2013). The post-industrial societies are characterized by an ageing of the population, in some cases mitigated by immigration of young, fertile people from less prosperous countries in search of work and economic security (Powell 2013). A question that only recently has started receiving attention is whether in the future, young immigrant populations in post-industrial societies will be willing to support an ageing population of native residents (Phillipson 2013; Khan *et al.* 2013).

The Third World countries experience a dramatic population ageing, albeit from a lower base and, since the overall population of the Third World far exceeds that of the post-industrial societies, the sheer numbers of older people in Third World countries will in the future far exceed those in post-industrial societies (United Nations 2012).

This trend alone will pose global political challenges as well as challenges for the countries that face a population explosion of elders. In addition to the quandaries of population ageing associated with development, some African countries face devastation wrought by AIDS which depletes the population of those cohorts in mid-life who could otherwise be counted upon to support chil-

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dren and frail elderly (Phillipson 1998; United Nations 2012; Higo and Khan 2015).

The very nature of post-industrial societies is dependent on relationships with the Third World. The process of deindustrialization, which makes these societies become post-industrial, with their economies focused on the production of services and information technology, resulted from multi-national corporations moving manufacturing from advanced industrial societies to Third World countries where costs in terms of wages, benefits, and safety precautions are much smaller than in advanced industrial societies (McDaniel and Zimmer 2013). Workers in Third World countries may be paid as little as one dollar a day, sometime below the local living wage, and far below the wages paid to workers in advanced industrial societies (Powell and Cook 2009).

The use of child labor is a recurrent problem and the one driven by economic considerations. The advent of factories in Third World countries generally provides low wage jobs, but not an adequate living wage, and disrupts local social systems as workers move to cities where factories are located in search for work (Phillipson 2013). Furthermore, not only do post-industrial societies consume products manufactured in Third World countries, they also lure skilled services workers, such as physicians, to provide medical care (McDaniel and Zimmer 2013). The United States' economy is said to be dependent on low paid, often undocumented low skilled workers in agriculture and other service jobs.

This article will discuss the broad dynamics of global ageing, outline the basic features of post-industrial societies, and survey global trends in population ageing and their consequences. The first task is to discuss the meaning of 'post-industrial' in the context of ageing. The idea of post-industrial societies has been a contested theme within social sciences although its shortcomings as a concept have been at least equally matched by the importance of the questions raised (Phillipson 2013).

Essentially, the idea is associated with the work of American sociologist Daniel Bell (1973) who in his book, *The Coming of Post-Industrial Society*, identified a number of major shifts in the structure of the Western societies, notably the move from a manufacturing to a service economy, the apparent decline of the working class, and the rise of professional and technical groups (reflected in the expansion – from the 1960s onwards – of the university system). These changes were considered to present a fundamental challenge to the basis of industrialism, with the creation of a different kind of society – the one which will soon be dominated by technology and automation (Hendricks and Powell 2009).

Many analysts of the 'post-industrial' theme have in fact preferred to stress the continuities with previous epochs, suggesting that the driving forces appear little different from those associated with industrialism itself (Phillipson 2013). Against this, the debates around post-industrialization were to spawn a number of linked ideas, many of which do point to social changes relevant to under-

standing issues affecting older people. Phillipson (1998), for example, drew a distinction between what they defined as 'organized' and 'disorganized' capitalism. The former characterized by the spread of manufacturing industry alongside an increasingly urbanized society; the latter associated with more flexible forms of work, the growth of the service sector, and the movement of people and jobs from the older industrial cities.

The rapid increase in population ageing across the globe signals one of the most important demographic changes in human history. In the latter half of the last century, the world's developed nations completed a long process of demographic transition (Raeside and Khan 2008; Khan 2013). We can define a demographic transition as a shift from a period of high mortality, short lives, and large families to one with a longer life expectancy for an ageing population and far fewer children (Powell 2013).

This transformation has taken many years across the globe but particularly in Europe and North America as small unit families moved from agrarian mode of production to urban cities; basic public health measures steadily reduced the risk of contagious disease; and modern medicine has prolonged lives to unprecedented lengths (United Nations 2012). In developing countries, this demographic transition is certainly underway, though these countries vary widely at their places along the spectrum.

Low birth rates and the resultant population decrease have received considerable media attention, particularly in Europe and parts of Eastern Asia (Bengtson and Lowenstein 2004). Historically, when demographers projected national and global populations, the projections commonly assumed that birth rates would decline globally but only to the 'two-child' family, that is two children per woman or per couple on average (Phillipson 2013).

An assumption that fertility would fall below this rate would have some hegemonic assumptions: a decrease in population size and an ageing population that would depend upon a dwindling number of younger workers. Today, the global population has come to what we may call a great 'demographic divide'. Very low birth rates have inflicted long-lasting alterations upon the age structure of population (Phillipson 1998; Raeside and Khan 2008; United Nations 2012; Leeson and Khan 2013; Higo and Khan 2015).

In order to examine such complex and vast demographic changes, academic researchers use a variety of methodological tools to find, collate and interpret such changes through the guise of 'post-industrial society' (Hendricks and Powell 2009). A post-industrial society is a society in which an economic transition has occurred from a manufacturing based economy to a service based economy, a diffusion of national and global capital, and mass privatization.

The prerequisites to this economic shift are the processes of industrialization and liberalization. This economic transition spurs a restructuring in society as

a whole. George Ritzer (2007) claims there have been explicit changes in the social structure associated with the transition to a post-industrial society. Within the economy, there is a transition from goods production to the provision of services. Production of clothing and steel declines, while services (such as selling consumer goods and investment advice) increase. Although services predominate in a wide range of sectors, health, education, research, and government services are the most decisive for a post-industrial society.

Daniel Bell (1973) emphasized the changes to post-industrial society are not merely socially structural and economic; the values and norms within the post-industrial society are changed as well. Rationality and efficiency become the paramount values within the post-industrial society.

Eventually, according to Bell, these values cause disconnect between social structures and culture. Most of today's unique modern problems can be generally attributed to the effects of the post-industrial society. These problems are particularly pronounced where the free market dominates. They can include economic inequality, the outsourcing of domestic jobs.

We can point out various dimensions to measure global ageing such as demographic, socio-economic, health, intergenerational support, activities in later life, social security, dependency rates and human right issues as part of the post-industrial age (Phillipson 1998). While the proportions of older people in a population are typically highest in more developed countries because of measurement data of *low birth rates* and high *life expectancies* which are used to understand global ageing, the most rapid increases in older populations are actually occurring in the less developed world (Khan and Leeson 2006; Cook and Powell 2007). Between 2006 and 2030, the increasing number of older people in less developed countries is projected to escalate by 140 % as compared to an increase of 51 % in more developed countries (Phillipson 2013).

A key feature of population ageing is the progressive ageing of the older population itself. Demographers contrast the 'old' (65+) with the 'oldest old' (85+) and that the oldest old population is growing at an even more rapid pace than the overall old population. Over time, larger numbers of older people survive to even more advanced ages.

Around the world, the 85-and-over population is projected to increase 151 % between 2005 and 2030, compared to a 104 % increase for the population of age 65 and over and a 21 % increase for the population under age 65 (McDaniel and Zimmer 2013). The most striking increase will occur in Japan: by 2030, nearly 24 % of all older Japanese are expected to be at least 85 years old (Kim and Lee 2007).

As life expectancy increases and people aged 85 and over increase in number, four-generation families may become more common even in developing countries (Khan 2013). *Dependency rates*, which are the number of dependants

related to those of working age, have altered little over the 20th and 21st centuries (Leeson and Khan 2013).

The reason there has been so little change during a period of so-called rapid ageing populations is that there has been a fall in the total fertility rate, TFR (the average number of children that would be born to each woman if the current age-specific birth rates persisted throughout her child-bearing life).

Dynamics of Global Ageing Populations

In every society in the world, there is concern about population ageing and its consequences for nation-states, for sovereign governments and for individuals. It is evident that population is ageing globally. Ageing itself is a 'triumph' of our times – a product of improved public health, sanitation and overall development. Increasing longevity is a remarkable achievement for humanity in the 21st century and for the first time it is a breakthrough in history as four generations begin to live together in the society (Phillipson 2013; Khan 2013; Higo and Khan 2015).

Yet over 100 million older people live on less than a dollar a day. In 1950, eight out of every 100 people were over 60. By 2050, 22 out of every 100 people will be over 60. By 2045, the global population of people aged 60 years and over will likely surpass, for the first time in history, the number of children under age 15 (Powell 2005). The increasing share of older people in the world's population results from a combination of hugely increased life expectancy and reduced fertility (McDaniel and Zimmer 2013).

Globally total fertility rate is expected to decline from 2.82 children per woman in 1995–2000 to 2.15 children per woman in 2045–2050. Life expectancy worldwide is expected to increase by 11 years, from 65 years in 1995–2000 to 76 years in 2045–2050, despite the impact of HIV/AIDS (Phillipson 2013). Most of the world's older people (about 75 %) live in developing countries (Krug 2002; United Nations 2012).

Even in the poorest countries, life expectancy is increasing and the number of older people is growing. In 2000, there were 374 million people over 60 in developing countries – 62 % of the world's older people. In 2015, there will be 597 million older people in developing countries – 67 % of the world's older people (Powell 2013). In 2005, one in twelve people in developing countries were over 60. By 2015, one in ten people in developing countries will be over 60 and, by 2050, one in five people in developing countries will be over 60. In every region the rate of population increase for the 65-and-over age group is higher than for the under-14 age group and the 15–64 age group (Bengtson and Lowenstein 2004).

The older women are more in number and they are more likely to be poor. The majority of older persons globally are women. In 2006, there are 82 men for every 100 women over 60 worldwide (Powell 2013). In developing countries,

the gap is less wide: there are 85 men for every 100 women over 60. However, with age this gap increases – for over 80s, there are only 73 men for every 100 (Bengtson and Lowenstein 2004).

Although women live longer than their men counterparts, they possess relatively less resource and in many cases are found to be dependent on their offsprings and other relatives, particularly in developing countries. Longer life is also associated with morbidity and long term care. The demographic trend indicates that people should be prepared for enjoying longer longevity compared to the previous generation and they should also be prepared for bearing their own cost of care (Khan and Leeson 2006; Khan *et al.* 2013).

Social and Economic Implications of Global Ageing

While global ageing represents a triumph of medical, social, and economic advances, it also presents tremendous challenges for many regions of the world. Population ageing strains social insurance and pension systems and challenges existing models of social support traditionally given by family structures (Leeson and Khan 2013; Powell and Khan 2013). It affects economic growth, trade, migration, disease patterns and prevalence, and fundamental assumptions about growing older. Global ageing will have dramatic effects on local, regional, and global economies. Chris Phillipson (2013) has argued that the rise of globalization exerts unequal and highly stratified effects on the lives of older people in different nation-states (Estes 2001; Phillipson 2013).

In the developed world, the magnitude and absolute size of expenditure on programs for older people has made these the first to be targeted with financial cuts. In less developed countries, older people (women especially) have been amongst those most affected by the privatization of health care, and the burden of debt repayments to the World Bank and the IMF (Estes 2001; Powell 2013).

Additionally, globalization as a process that stimulates population movement and migration can also produce changes that disrupt the lives of older people (Phillipson 1998). And one should also bear in mind that they may comprise up to one-third of refugees in conflict and emergency situations – a figure which was estimated at over 53 million older people worldwide in 2000 (Estes 2001).

Changes in the age structures of population also have consequences for total levels of labor force participation in society, because the likelihood that an individual will be in the labor force varies systematically by age (Phillipson 2013). Labor itself is viewed as less mobile than capital, although migration could offset partially the effects of population ageing. Currently, 22 % of physicians and 12 % of nurses in the United States are foreign born, representing primarily African countries, the Caribbean, and Southeast Asia (OECD 2007). The foreign-born workforce also is growing in most OECD countries.

Over the next ten years, the European experience will be particularly instructive in terms of the interplay of ageing and migration (Leeson and Khan 2013).

It is also because the future is already dawning that global trends impact on state power. In South Korea and Japan, which have strong cultural aversions to immigration, small factories, construction companies, and health clinics are relying more on 'temporary' workers from the Philippines, Bangladesh, and Vietnam (OECD 2007).

In China, state industries are struggling over how to lay off unneeded middle-age workers when there is no social safety net to support them (Cook and Powell 2007). What really has pushed ageing to the top of the global agenda, though, is increasing fiscal gaps (in part, due to the 'global credit crunch') in the USA, Europe, Japan, and elsewhere that could worsen as populations reach retirement age. While U.S. Social Security is projected to remain solvent until at least 2042, the picture is more acute in Europe. Unlike the USA, where most citizens also have private savings plans, in much of Europe up to 90 % of workers rely almost entirely on public pensions (Walker and Naeghele 2000). Austria guarantees 93 % of pay at retirement, for example, and Spain offers 94.7 %.

Concurrently, global population ageing is projected to lead to lower proportions of the population in the labor force in highly industrialized nations, threatening both productivity and the ability to support an ageing population (Krug 2002). It is possible for the elements of production – labor and capital – to flow across national boundaries and mitigate the impact of population ageing (Phillipson 2013).

Studies predict that, in the near term, capital accumulation will flow from Europe and North America to emerging markets in Asia and Latin America, where the population is younger and supplies of capital relatively low. In another two decades, when the 'baby boom' generation in the West has mostly retired, the consequence is that capital will likely flow in the opposite direction (May and Powell 2008).

It is interesting that the World Bank (1994) foresees growing 'threats' to international stability with the consequence of pitting different demographic-economic regions against one another (Phillipson 2013). The United Nations (2002) view the relationship between ageing populations and labor force participation with panic, recognizing important policy challenges, including the need to reverse recent trends toward decreasing labor force participation of workers in late middle and old age despite mandatory retirement in certain Western countries such as the UK (Powell 2005).

Social welfare provisions and private-sector pension policies influencing retirement income have a major impact on retirement timing. Hence, a major concern for organizations such as United Nations and World Bank centers on the number of such 'dependent' older people in all developing societies.

Furthermore, nation-states with extensive social programs targeted to the older population – principally health care and income support programs – find

the costs of these programs escalating as the number of eligible recipients grows and the duration of eligibility lengthens due to global pressures (United Nations 2012). Moreover, few countries have fully funded programs; most countries fund these programs on a pay-as-you-go basis or finance them using general revenue streams. Governments may be limited in how much they can reshape social insurance programs by raising the age of eligibility, increasing contribution rates, and reducing benefits (Phillipson 2013). Consequently, shortfalls may need to be financed using general revenues.

NGOs can also play a vital role. Projections of government expenditures in the United States and other OECD countries show increases in the share of gross domestic product devoted to social entitlements for older populations. In some cases, this share more than doubles as a result of population ageing (OECD 2007). The age groups in different countries have different levels of pace of growth (Phillipson 2013; Estes *et al.* 2003).

The life-cycle theory of consumption is that family households accumulate wealth during working years to maintain consumption in retirement (Gilleard and Higgs 2001). The total of a country's individual life-cycle savings profiles determines whether households in that country are net savers or non-savers at any point in time (Phillipson 2013).

A country with a high proportion of workers will tend to be dominated by savers, placing downward pressure on the rate of return to capital in that economy. Nation-states with older populations will more tap their savings and driving rates of return because of the scarcity of capital (Gilleard and Higgs 2001).

This surely makes impact on pensions. Most European state-funded pension systems encourage early retirement. Now, 85.5 % of adults in France retire from employment by age 60, and only 1.3 % engages in employment beyond aged 65. In Italy, 62 % of adults retire from full-time work by the age of 55. That compares with 47 % of people who earn wages or salaries until they are 65 in the USA and 55 % in Japan (Estes 2001).

Individual and family resources are important too. These typically include public and private pensions, financial assets, and property. By 2050, pensions and elder-care costs will increase from 14 % of capitalist nations' gross domestic product to 18 % (Powell and Chen 2012). The relative importance of these resources varies across countries. For example, a groundbreaking study revealed that only 3 % of Spanish households with at least one member age 50 or older own stocks (shares), compared to 38 % of Swedish households (*Ibid.*).

The largest component of household wealth in many countries is housing value. This value can fall if large numbers of older homeowners try to sell houses to smaller numbers of younger buyers. How successfully this transition is managed around the world could determine the rise and fall of nations and reshape the global economy in the era of the post-credit crunch.

Two key vehicles of growth are increases in the labor force and productivity. If nation-states cannot maintain the size of their labor forces by persuading older workers to retire later (or allowing them to replace the workplace) then the challenge will be to maintain growth levels. This will be a particular challenge in Europe, where productivity growth has averaged just 1.3 % since 1995. By 2024, the growth in household financial wealth in the USA, Europe, and Japan will slow from a combined 4.5 % annual reduction now to 1.3 %. That will translate into US\$ 31 trillion less wealth than if the average age were to remain the same (Powell 2013).

This also has an impact on older people, family and household. Indeed, older people's living arrangements reflect their need for family, community, or institutional support. Living arrangements also indicate socio-cultural preferences – for example, some choose to live in nuclear households while others prefer extended families (Estes *et al.* 2003). The number, and often the percentage, of older people living alone are rising in most countries. In some European countries, more than 40 % of women age 65 and older live alone (McDaniel and Zimmer 2013).

Even in societies with strong traditions of older parents living with children, such as in Japan, traditional living arrangements are becoming less common. In the past, living alone in older age often was equated with social isolation or family abandonment (Phillipson 2013). However, research in many cultural settings illustrates that older people, even those living alone, prefer to be in their own homes and local communities (Gilleard and Higgs 2001). This preference is reinforced by greater longevity, expanded social benefits, increased home ownership, elder-friendly housing, and an emphasis in many nations on community care (Estes *et al.* 2003).

As people live longer and have fewer children, family structures are also transformed (Bengtson and Lowenstein 2004). This has important implications in terms of providing care to older people. Most older people today have children, and many have grandchildren and siblings. However, in countries with very low birth rates, future generations will have few if any siblings (Phillipson 2013).

As a result of this trend and the global trend toward having fewer children, people will have less familial care and support as they age (Bengtson and Lowenstein 2004). This is a real threat to our traditional care system in the society particularly in developing countries.

As a consequence of the global demographics of ageing, the changing societies of the post millennia are being confronted with quite profound issues relating to illness and health care, access to housing, food price hike, and economic resources including pension provision (Powell and Chen 2012). The past several years have witnessed an unprecedented stretching of the human life span.

This ageing of the global population has no parallel in human history (Bengtson and Lowenstein 2004; Krug 2002) and emerged as a new demographic scenario with huge uncertainties. Thus, more research is needed. If these demographic trends continue to escalate, by 2050 the number of older people will globally exceed the number of young for the first time since formal records began raising questions of the power of the nation-state in the context of global ageing.

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