Demographic Tsunami: Retirement, Pensions and the Impact on Societies and Economies

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The world is getting older – but why, and what does it mean?

First the 'why'? This is easy; people are living for longer and birth rates are declining. Since 1900 global average lifespans have more than doubled.[1] Advances in healthcare, hygiene, immunology, and education have driven a revolution yielding average life expectancy around the world that today is higher than the leading countries in 1950. Progress continues to be made, with the most notable gains coming from traditional laggards in Africa, Central Asia and the Asian sub-continent.

The obverse is declining fertility rates. According to records compiled by the World Bank, the average woman in 1968 could be expected to give birth to 4.9 children. Fifty years later it had fallen to 2.4 although the impact is moderated by concurrent declines in child mortality everywhere, particularly in less developed countries. In many places, including all OECD member countries, birth rates are no longer sufficient to replicate current populations.

What does this mean for societies, economies, and geopolitics? Forecasting with certainty is difficult but there are enough icebergs visible on the horizon to suggest the dangers potentially lying ahead.

Age Imbalance

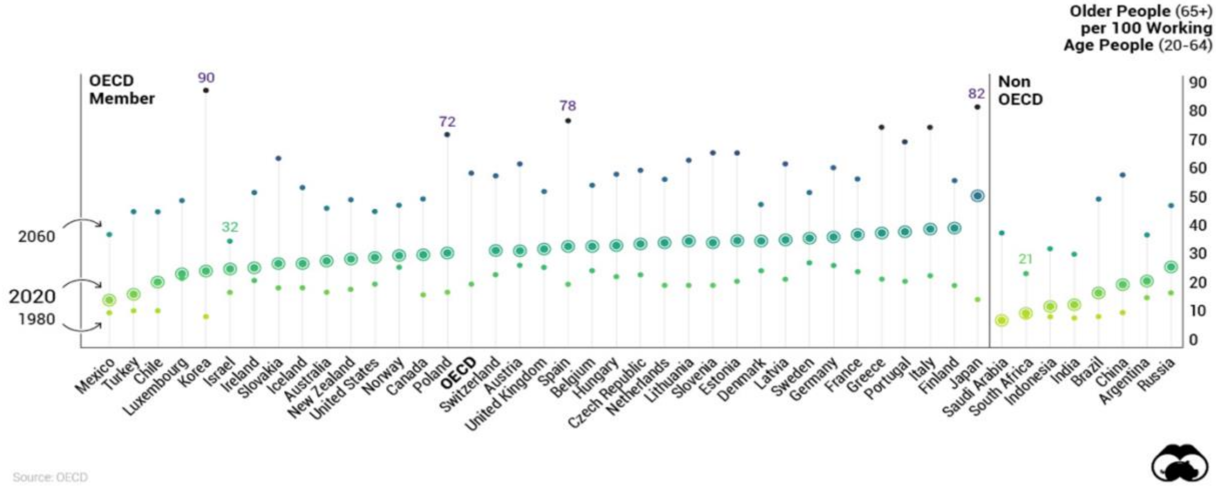
One such iceberg is the growing imbalance between the working population and older people (defined as those 65+ years old). The former produce the GDP and pay the taxes that fund the pensions, healthcare and other supports for the latter group.

The illustration below from Visual Capitalist, based on OECD data, reflect how the relative proportions of these two groups is evolving. Other than Japan, most countries have seen relatively modest increases in the numbers of the elderly versus working age citizens between 1980 and 2020. This trend will accelerate significantly in most places over the next 40 years. By 2060, it is forecasted there will be 90 retirement-aged citizens in Korea for every 100 of working age from approximately 30 today. Much of Europe is moving in the same direction. Special attention should be paid to those non-OECD countries also expecting massive increases in their elderly populations, although from much lower bases. Today younger people in Brazil and China respectively support 18 and 20 elderly per 100 working population. By 2060 this is expected to grow to 53 and 58 respectively, increasing the elderly to working age ratio almost three-fold.

This evolution may increasingly fuel political debate and economic priorities within countries. Older citizens will likely demand maintenance, if not expansion, of pension, healthcare, and other support programs while younger citizens may grow increasingly unwilling to shoulder the necessary tax burdens. Expect pressure on other government spending such as education or

[1] Comments on life expectancy borrow extensively from https://ourworldindata.org/life-expectancy , Max Roser, Esteban Ortiz – Ospina and Hannah Ritchie downloaded 09/08/2020

infrastructure as governments try to satisfy the demands of growing number of seniors without resorting to major increases in taxation.



As the balance between working and non-working populations continues to shift towards the latter, it will become more challenging to maintain, let alone increase, economic growth rates. Japan’s experience over the last 30 years is both a lesson and a warning. An even larger premium will be placed on productivity as a fix to this, including redeployment of senior citizens into new roles.

Canada, Australia, and some other countries are mitigating demographic effects through immigration but for more culturally insular countries such as Japan, Korea, China, and parts of Europe this will be contentious. Present debates over immigration and cultural identity may eventually be viewed as tame in retrospect

Those lucky enough to be educated and of working age can probably look forward to healthy increases in wages as the workforce they participate in stagnates or shrinks. Offsetting this is the problem of overall economic growth alluded to above, which may limit career opportunities and prospects.

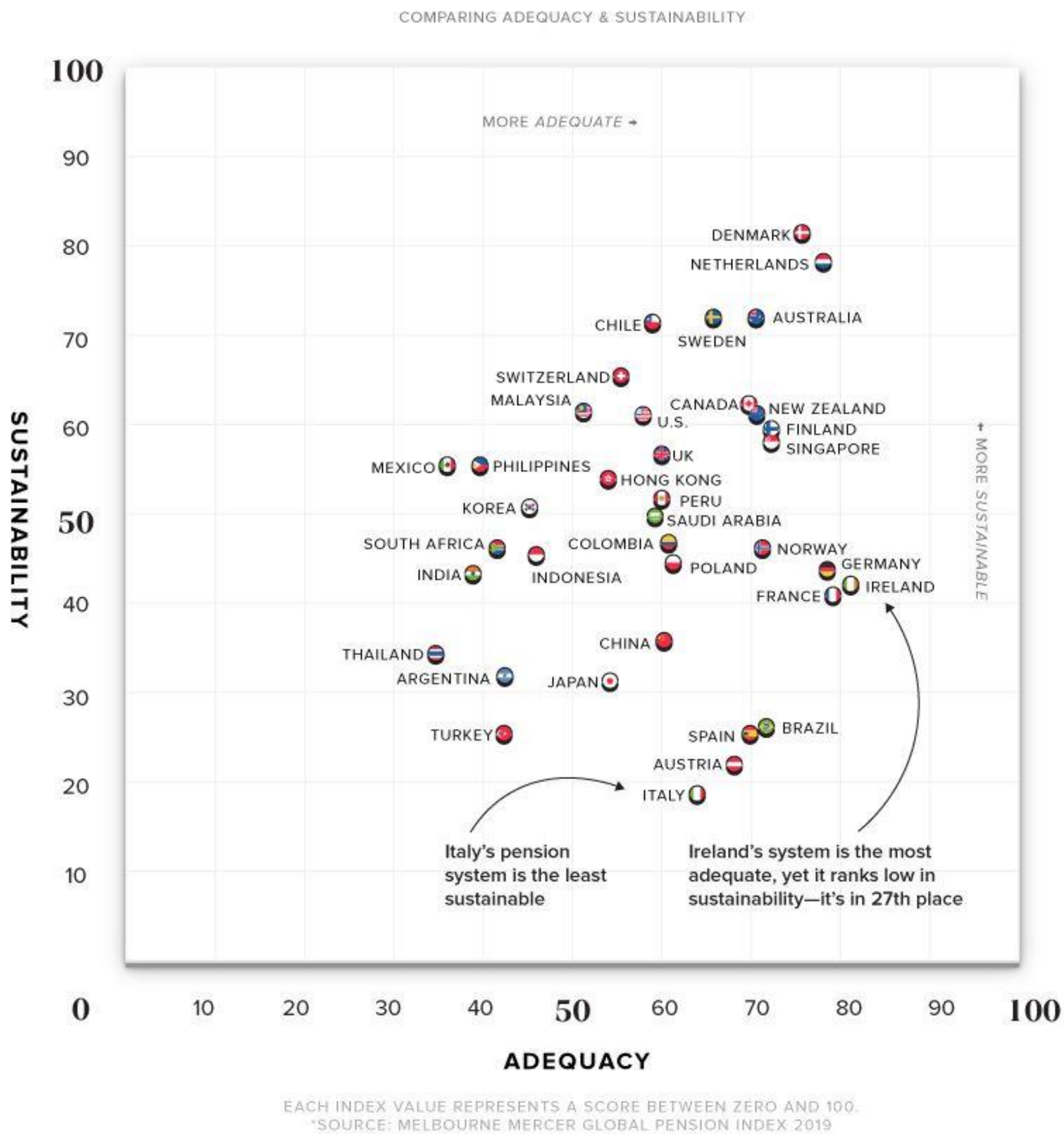
Two economic megatrends that should continue are the substitution of technology and capital for labour, and the globalisation of production. Robotics, data and sensor technology, or AI will continue to eat away at employment in manufacturing, logistics, clerical and some service industries. This in response to the costs of wages and benefits increasing and the availability and reliability of technological substitutes grows while their cost decreases. Industries still requiring large unskilled and semi-skilled labour will continue to move offshore. The globalisation of production will continue, although the 2020 pandemic could apply a temporary brake as governments and businesses seek to diversify their supply chains and wrestle with what constitutes ‘strategic’ goods and services that must be sourced domestically, regardless of cost.

Problems with Pensions

The availability and robustness of safety nets available to the elderly may be a significant predictor of future inter-generational frictions and their related social and economic disruption. I will focus discussion on public pension systems as they are often a good indicator of governments' appetite for public healthcare and other types of social support.

There are two critical dimensions to any public pension system – adequacy and sustainability. Adequacy reflects what degree a pension can provide a satisfactory lifestyle, usually measured as a percentage of pre-retirement incomes. Sustainability is the measure of the resources available to a pension system to continue to make payments to eligible recipients over time.

This is illustrated below in an infographic by Visual Capitalist based on data from the Melbourne Mercer Global Pension Index of 2019.



Those countries in the upper-right portion of the illustration offer pensions that are both generous and whose future funding is on a firm footing. In some cases, such as Denmark, this will be helped by the fact the ratio of elderly to working age population is not expected to explode to the same degree as other countries. Countries towards the bottom-right of the cluster offer relatively generous pensions that are possibly unsustainable at current levels. Italy, Brazil, Spain and similar are especially hard-pressed. Even though their current systems are stressed, each is expecting major growth in the proportion of elderly to the working age population. It is not difficult to foresee political and social tensions growing between the ‘haves’ who benefit from the generosity of the current system and those who are ineligible or would like to see their tax dollars spent on other priorities.

Those countries located in the left-side of the cluster are seen to offer pensions not conducive to a reasonable lifestyle. Countries like Mexico and India are likely to see their elderly citizens clamoring for higher spending and more generous benefits. Worst-placed and the most likely to suffer political, social, and economic tension ae countries in the lower left of the cluster. Thailand, Argentina, and Turkey all have pension systems that are already viewed as inadequate but also happen to be on the shakiest footings in terms of sustainability.

There are adjustments countries can make. One way is to grow out of the problem with strong economic performance. China, India, Turkey, and the countries of South-East Asia all seem to be attempting this strategy. The risk of course is if GDP falls behind demographic trends, extant problems with pension adequacy and sustainability may quickly come to the fore.

Other responses include reducing benefits, either explicitly as Brazil and France have attempted, or by stealth such as Canada’s increase of the retirement age and incentivizing citizens to take their pensions closer to age 70 than to 65. And everywhere governments are under pressure to increase contributions either from citizens directly or through their employers.

Income Inequality

Of course, the adequacy and sustainability of public pensions are not a concern if you do not require them. A billionaire resident of Monaco or Luxembourg probably does not spend much time worrying about the solvency of the national pension plan. But not everyone falls into this fortunate category and our last illustration below attempts to measure this by taking (a) Gross National Income (“GNI”) per capita (purchasing power basis), (b) adding the GINI coefficient (a measure of income distribution where 0 represents perfect equality and 100 represents maximum inequality) and (c) a measure of the multiple of what the highest-income 10% of households earn over the lowest-earning 10%.

It is an over-simplification, but those countries with high per capita incomes that are fairly evenly distributed are most likely to have citizens with some retirement savings of their own as well as the wherewithal to pay additional taxes to support a sustainable national pension system. Take Ireland, for example. Although its generous pension system has a low sustainability score, its high annual income per capita (US$ 67,050) that is relatively evenly distributed (GINI coefficient of 32.8 and a top 10% to bottom 10% multiple of 4.5 times) gives it a lot of options to cope with a higher ratio of elderly to workers. Tweaks like slightly containing the growth of benefits, increasing taxes or targeting support to its relatively small number of impoverished are all possibilities.

Much less enviable is the position of South Africa, whose pension system is seen as slightly more sustainable than Ireland's but whose benefits are much less adequate. With a per capita income around one-fifth of Ireland's on a purchasing power parity basis, a GINI coefficient of 63 and with the top 10% of earners pocketing 33.1 times of the lowest 10%, any material increase in the demands on the pension or other social support systems may overwhelm the system, with the attendant risk of political, social and economic disruptions.

Country	Gross National Income/Capita (USD equivalent on a PPP basis)	GINI Coefficient	Top 10% vs. bottom 10% as multiple of income
Argentina	$19,870	41.4	31.6
Australia	$50,050	34.4	12.5
Brazil	$15,850	46.6	16.5
Canada	$47,590	33.8	9.4
China	$18,170	38.5	21.6
Denmark	$56,410	28.7	8.1
France	$46,360	31.6	9.1
Germany	$54,560	31.9	6.9
India	$7,680	37.8	8.6
Indonesia	$44,380	39.0	7.8
Ireland	$67,050	32.8	4.5
Japan	$44,380	32.9	5.4
Mexico	$19,340	45.4	21.6
Netherlands	$56,890	28.5	9.2
Philippines	$10,740	44.4	15.5
Poland	$30,010	29.7	8.8
Russia	$26,470	37.5	12.7
South Africa	$13,250	63.0	33.1
South Korea	$40,090	31.6	7.8
Spain	$39,800	34.7	10.3
Sweden	$54,030	28.8	6.6
Turkey	$27,640	41.9	6.6
United Kingdom	$45,350	34.8	13.8
United States	$63,780	41.4	18.5
Vietnam	$6,930	35.7	6.8

Sources: GNI – World Bank, International Comparison Program Database retrieved 06/08/2020
GINI – World Bank Estimate, data@worldbank.org retrieved 06/08/2020
Richest 10% vs. poorest 10% - Human Development Report 2009, UNDP

Demography is not necessarily destiny, but it is a pretty safe way of betting on how the future will develop. Here are some parting observations:

- A revolution in healthcare and global decline in fertility rate are leading to a situation where an increasing portion of the global population will consist of senior citizens.
- Unless counterbalanced by either increases in immigration or major improvements in productivity, the growth prospects of economies with a growing proportion of senior citizens is likely to fall. Countries like China may see the biggest declines in growth potential.

- The economies and societies facing the largest adjustments are likely those experiencing the largest increases in senior citizens as a proportion of their population. These include Japan, South Korea, or Poland.

- The absolute percentage of elderly may not be as meaningful as the pace of change. Compared to where they now stand countries like South Korea, China, Brazil, or Saudi Arabia may experience the greatest dislocation as their share of elderly doubles or triples over the next 40 years.

- The adequacy of government financial support for the aged varies greatly from country to country. Middle income countries with less generous systems such as Thailand, Turkey, Mexico, and the Philippines can expect consistent pressure to raise benefits or to expand eligibility requirements to cover more of the population.

- Sustainability is another issue and governments in countries such as Italy, Japan, China, Brazil, and Spain will be pressured to raise taxation (setting up the possibility of inter-generational political conflict), delaying eligibility, reducing benefits, or some combination thereof.

- Sustained political friction is most likely to be felt in economies that are already unbalanced in terms of the gap between the wealthy and the less fortunate. Governments in South Africa, Argentina, Mexico, and China may be expected to face sustained internal dissatisfaction, and possibly seek populist political distractions to deflect citizens' attention.