THEME 01

Solutions to the looming pension crisis

ECONOMICS TECHNOLOGY CYCLE FINANCIALS

Last week, we wrote about the looming pension crisis, and this week we will explore some possible solutions. From a hegemonic, technological and socio-cultural perspective, we can find new answers and insights to deal with this issue. These answers all redefine the context of work, labor markets and life in old age.

Our observations

- When looking at the UN World Population Prospects 2017 dataset, we find major demographic imbalances across the world. Globally, the percentage of people above 65 years will increase from 8.3% in 2015 to 15.8% in 2050 and 22.5% by 2100. During that period, the dependency ratio (the ratio of people between 20 and 64 years to those who are 65+) will decrease from 7 in 2015, to 3.5 and 2.4 in 2050 and 2100 respectively.
- However, there are wide regional and national differences. In Japan, for example, 26% of the population was already above 65 in 2015, which will increase to more than a third by 2050. Because of this, Japanese citizens, companies and the government are actively collaborating to find ways to deal with these demographic challenges, such as establishing elderly fitness centers, awarding subsidies to seniors setting up their own business, as well as dealing with Japan's "grey crime wave". By spurring productivity and reducing the dependency on labor inputs, automation can boost economic growth.
- We have written before that labor productivity as well as labor force growth are declining in many countries, constituting what we called the "labor problem". As a result, U.S. states and countries with ageing populations tend to have a higher adoption of robots, using them to replace and improve labor inputs. Likewise, even modest improvements in artificial intelligence may contribute 1.2% to annual GDP growth already in the next decade, according to new research.
- Many people find it difficult to save enough for their old age. That is both because of financial illiteracy (i.e. citizens being unable to form stable expectations of their future finances and maintain a healthy balance sheet), but also because they find it difficult to postpone current consumption for future purchasing power (i.e. their pension). Using insights from behavioral sciences, research shows that the adoption of automatic enrolment could increase retirement income by 33% when compared to voluntary enrolment.

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Connecting the dots

As we wrote last week, there is a looming pension crisis that will unfold gradually in the coming decades in many advanced economies. The easy solution package consists of increased public and corporate spending on pension schemes and consumers saving more for their old age, hurting government finances, corporate earnings and household consumption, hence harming economic growth. However, there are different, possibly more sustainable and structural solutions that redefine the context of work, life after work and the role of senior citizens. We will look at these from three perspectives.
From a hegemonic perspective, there is a major demographic imbalance within the global population, providing a solution to rising dependency ratios in many countries. In general, countries with stagnating or falling natural population growth (i.e. having sub-replacement fertility rates) are primarily in the West. On the other hand, there are countries whose natural population growth is very high. Of the 37 pre-demographic dividend countries (i.e. those that have very high birth rates but also high mortality rates), 34 are in Sub-Saharan Africa. This means that the first group faces increasing dependency ratios, which puts pressure on public pension provisions, while the latter needs to find jobs for their "youth bulge". Balancing global labor demand and supply implies international labor migration, whereby young migrants take care of elderly citizens, for example from Sub-Saharan Africa to Europe or the Middle East to East Asia. One hindrance is that this type of migration has become a hot potato in Europe, while East Asian countries (such as Japan, China and South Korea) have very strict immigration rules.
The socio-cultural perspective inquires how people actually think of work and value life after work. Stimulating people to work longer means reducing the claims made on pension liabilities (assuming working longer does not increase one's life expectancy). Japan, which is at the forefront of the "ageing-frontier", illustrates that a sense of necessity and shared destiny can intrinsically motivate people to work longer. Furthermore, Japanese seniors are now actually boosting Japan's economy, with Japanese companies and marketers increasingly using the term "*hyakunen jinsei*" (100-year life) in their messages, as seniors were the highest spenders on meat, cars, smartphones and travel in 2017. Considering that more than half of the world's urban consumption growth by 2030 will be generated by retiring elderly in developed economies, a vibrant grey economy will emerge, requiring a new narrative for old age.
This is becoming increasingly feasible because of new technological innovations that reduce the difficulties of working at an old age. Think of exoskeletons that can reduce the burden of physical work in construction and manufacturing. This enables senior citizens to work longer, as they are often physically unable but mentally capable of most (white-collar) work. Furthermore, future generations that are retiring have – at least for some time in their working life – been accustomed to digital technology, hence we can expect them to have much more understanding of and feeling for technology. This can help implement fintech solutions to pension schemes by, for example, automatically enrolling citizens in digital payment schemes or providing more transparency and insight into their pension funding. Furthermore, this upcoming generation of "digital seniors" is better able to use technology to boost their productivity at old age. As improvements in AI mean that an increasing amount of predictable and routinized manual work can be done by machines, creativity, experience, and social knowledge will be more highly valued, which accumulate over the course of one's life. A more radical solution is to wholly replace and substitute the human labor force by automating much work, hence increasing productivity. Although these solutions paint an ideal future of dealing with our pension problems, they point to new ways of thinking and solutions required for the looming pension crisis.

Implications

- **Countries that have a favorable view of work, such as the U.S., Germany and China, will have less difficulty stimulating the elderly to work longer. Likewise, countries with favorable views on how technology can improve their lives will be more capable of raising their senior labor productivity. As such, they will likely develop more sustainable grey economies.**

- **Preparing senior workers to work longer and better requires intensive reschooling and continuous education. In OECD countries, more than half of the adult population have no ICT skills or can only fulfill very simple tasks. Even among young adults (between 25 and 34), only 42% can complete tasks involving multiple steps of specific technology applications, such as downloading music files or looking for a job online; among people aged 55-65, only 10% can do this. Furthermore, working longer requires rethinking the current schooling curricula, as the skills learned should fit the context of the 21st economy and be adaptive. With change and disruption accelerating in our global and digital economy, education could be modularized and spread across one's lifetime, allowing for lifelong learning.**

- **The pension liabilities of government and corporate pension provisions are long-term commitments that spread out over many years. However, as many schemes are underfunded and pension payments will likely be cut or frozen, they can be considered government debt or non-performing corporate loans. Increased transparency, in the form of publicized pension liabilities and payment online, for example, would reveal these issues, hence put more responsibility in the hands of government and corporations for their pension liabilities.**

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