Two big trends and a hazy solution

The world and particularly our country have witnessed **huge demographic changes** during the last century and would apparently converge to stationary populations around 11.2 trillion and 21.5 million – from present day 7.3 trillion and 18 million figures - by years 2100 and 2050, respectively[1]. By 1900 they were approximately 1.5 trillion and 3 million. Life expectancy at birth increased from around 30 to 40 years by 1900 to 81 in present day Chile and 71 in the world. In Chile, life expectancy at birth increased by almost 10 years since 1980; since 1990-95 life expectancy at birth in the world went up by 6 years to reach 71 years. Both of these life expectancies at birth have kept growing and no one really knows how far they could get.

Noticeably, in the case of Chile and equivalently on a worldwide basis to take place some decades later, its under 14 year population of 3.7 million is now back to what it was in the 1970´s and 1980´s, having peaked at 4 million in the 1990´s. An increasing relative scarcity of young people will pose a huge challenge to long term development aspirations. The need for migrants in Chile will only increase, and so will be the case in Europe, Asia – almost 60% of world population today - and Latin America, considering that the big population increases will be centered in Africa and these three areas will show their inhabitants figures, by mid century, slowly going down. We will be witnessing a graying population world historically unknown until now.

In terms of human capital that can extend its economic life an additional decade or more the news is great, for the persons involved and their countries, contrary to almost doomsday perceptions that only focus on the later days and not on the longer earlier productive ones. But labor markets have to efficiently adjust to this structural condition, opening to more experienced but older people and allowing comparative advantages to be rationally used, while at the same time favoring a permanent updating in their capabilities and placing incentives to do so.

The other big and probably related trend, that of **falling real interest rates**, has taken place in the world since the mid 1990´s[2]. In the US, where long term rates, adjusted for inflation, hovered around 2 to 2.5% after the Second World War, they have now fallen below 1% and been even negative for short term Treasury Bills. A global savings glut, lower long term output and productivity growth, lower population growth converging to 1% and below and changing demographics and relatively less need for capital due to technology advancements, are all possible reasons that could explain this trend that seems more persistent than just a cycle related phenomenon. In the case of Chile, falling real "risk free" long term interest rates have gone from a range of 6 to 8% in the 1990´s to just under 2% today.

Both these changes require flexibility to adapt to them to be successful in the long term: flexible labor markets, open migration, demand based health and continuing education with income

[1] World Population Prospects, 2015 Revision, United Nations.
[2] Long Term Interest Rates: a Survey; Council of Economic Advisers, US; July 2015

support from a central government focused on the less wealthy, longer working periods associated with time lengthened pensions, are all related and interdependent matters.

If companies offering defined benefits plans bet in the past for shorter life periods, they already lost equity; if they consistently committed to pay interest related benefits higher than present interest rates, they also lost equity; if pensioners retired too early from the labor market, they unexpectedly lost standard of living; if countries did not adapt their education systems to the needs of this new world, they lost development capabilities; if countries did not adapt their health systems for longer life expectancies, they also lost development capabilities; if countries did not open their borders to migration and prepared their entry, they lost growth opportunities; if central governments thought the only solution relied on more resources coming from the “rich” without emphasizing right incentives nor recognizing limits to intervention, they also lost valuable growth opportunities.

But time is long, and from mistakes – foreseeable or not - a better future can be built with private and central government adjustments and trusting people to take care of themselves, if flexibility is always taken into account, competition never subdued and central governments focus on what they efficiently do, not on what a boundless Leviathan would do. Furthermore, if capital prices stay this low and human capital becomes relatively scarcer, due to this demographic trend and a technologically biased change in a world production function more dependent on human capital, a higher labor price could be reflected and probably an improved income distribution would ensue even before any tax and expenditure intervention from central governments took place. A sort of payback time for labor embedded in the economic system due to these trends unrelated to discretionary central government interventions, an *Invisible Hand Redux*.

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