

Pension: Now or Never

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The financial unsustainability of pensions will bring social and political unrest to the developed world. This problem is urgent and can only be faced before it explodes. Assessing it requires the analysis of different policies' aspects, which make an economic researcher the most suitable for this job.

Big Problem

How to provide income to the old is not a solved issue. Far from that, in most of the developed world, the pension system will become an untenable burden for the government. For example, social security in the US is projected to have \$5.6 trillion current deficit by 2080. US social security is in a much better financial position than the social security of China, Germany, Spain, England, France, and Brazil, among others. This problem forces us to question whether the promise given to the old will be kept or not.

The modern days are not the first ones to see social unrest due to pensions. The first formal pension system was started by August when he won the civil war against Marc Anthony and became the emperor of the Roman empire. To keep the loyalty of his army, August promise to his soldiers that served for 16 years a payment equivalent in cash or land to 12 times their annual salary. But August didn't realize the cost of the promise he was doing. According to historian Mary Beard, the army cost, including pensions, was more than 50% of the empire revenue and obtaining lands for pensions was an important force to push the empire to over-extend. Ultimately, the over-extension of the empire has been argued to be one of the causes of its fall.

Modern pensions have a different origin than Romans pensions, but the underestimation of their burden can be even more important than that of Emperor August. Since the introduction of pensions, when the future income promise was made, there has been a dramatic demographic change. Modern pensions start in 1889 with Bismark, promising pensions for workers over 70, when the life expectancy of a Prussian was 45. Social Security in the US started in the great depression, giving the first payment to Ida May Fuller in 1939, when the life expectancy was 62. Now, life expectancy is above 76 years for the US and above 80 in Europe. In Spain, the average rate of jubilation is 62 years old and someone with 62 years old is expected to live until 86. In 1956, a 60-year-old woman retiring from a job in Britain's National Health Service had a life expectancy of just under 20 years; by 2010 she could expect to live for another 32 years. In Europe, the ratio between retired and active population was 0.21 in 1990 and is projected to be 0.51 in 2050, which is less than 2 active workers per retired. Spain has 1.2 million more pensioners than there were just 10 years ago, an increase that represents 6% of the active population. In the beginning, when pensions promises were made, they were short-lived and aimed to a few, but now we are living in a completely different world than the one that saw them born. This dramatic change in demographics has not been matched by changes in the contributions or payment of pensions. Reform to pension promises is scarce in number and even more in magnitude. Governments are stick to promises made

more than 40 years ago when we lived in a different world. In addition to this, low-interest rates are making the problem worse, increasing the present value of future liabilities.

This new world dramatically increases the burden of pensions for governments. It is projected that by 2080 the difference between income and outcome of US social security will be of \$5.6 trillion, almost 30% of American GDP today. For the 75 years, the present of the difference between liabilities and income of the SS in the US is projected in \$16.8 trillions (82% GDP). In 2018, the difference between assets and the present value of liabilities of the UK's pensions system was of \$4 trillion, which is 135% of their GDP. France, Belgium, Germany, Austria, and Spain are in a much worse situation because they don't have assets saved to face future liabilities and there is not correct accountability of future liabilities, making the problem in these countries immeasurable. The pensions seem untenable in the long run and if we stay in this path, future politicians will face the dilemma of whether to break their promise to the old or place the weight of it on the shoulder of taxpayers. Whatever this decision would be, we have to try to avoid future politicians to face this dilemma and address the problem now. To do so we need to provide the right information to decision-makers. We need to fully understand the present problem and address the future consequences of reforms. This is a job for researches and involves financial, economic, re-distributive and political issues.

Pensions are a financial problem. They are rights over future flows of income and the price of those rights is a share of workers today's salary. As such, to define the price today and the value of the future liabilities of those rights is a financial question.

There is no free lunch in pensions. It is clear who is receiving and who will receive the pensions, but in the end, someone will be paying for them and the important question is who. It could be the same worker through his contributions today, could be future workers through future contributions or future taxpayers. Therefore, pensions are an important re-distributive tool among workers and between taxpayers and workers. Actual schemes and proposed reforms have non-obvious redistribution consequences, which are important to understand.

Pensions affect agents' behavior. They distort labor and saving decisions. Understand these distortions allow us to design more efficient schemes and predict better the outcomes of reforms. This modeling of people's behavior is crucial to find the right reform.

Finally, to reform the pension system is a political issue. In democracies, any reform involves politics. This is especially true when there are winners and losers so clear as in pension reforms and both workers and taxpayers are voters. It is part of our job to tell politicians about the political cost of proposed reforms.

This interconnection of different aspects makes the study of pensions an exiting topic from an academic perspective and an economics researcher the most suited for the job.

Proposal

Broadly, I want to structure my research to answers the following questions:

- In what situation are we now?
- What are the optimal policies?
- Are those policies feasible from a political point of view?