Can individuals provide enough resources for retirement on their own? Does the government optimally support life-cycle savings? And are annuities the optimal savings product for old age? Those are fundamental and pressing questions in times in which publicly financed social security systems are under severe demographic stress. The standard macroeconomic model of old-age savings would answer all those questions with a definite: YES! Yet, two important empirical facts stand in contrast with predictions from this model. First, the vast majority of individuals lag behind their optimal retirement savings pattern. Second, individuals do not annuitize their assets.

The objective of this project is to contribute to the understanding of these phenomena thereby adding to the macroeconomic literature on old-age savings. We will look into behavioral patterns considered jointly under the umbrella of term "incomplete rationality". This term refers to a variety of behavioral biases, which make us do things against our best interest as well as misperceive this best interest. We will also look into the fact that individuals with high educational achievement and income have strikingly different life expectancies than individuals without tertiary education and with lower incomes throughout the working years.

We will take our novel model, accounting for incomplete rationality and we will use it to study the case of 401(k) instrument in the US. This large instrument of old-age saving has been introduced in late 1970s, thus giving long history to study the effects. Also, data for the US are incredibly rich on savings choices. Finally, we have rich literature concerning 401(k) to rely on and to revisit. The earlier studies were far from unambiguous on the magnitude of the crowd-out due to 401(k). We will also use our model to study if 401(k) contributed to the changes in wealth inequality in the US and if it is effective in constraining old-age poverty in this country. Furthermore, we will add to the understanding of the welfare and inequality trade-offs embedded in mandatory annuitization of old-age savings schemes when lifespans are heterogeneous. As a final step, we will provide a political economy setup that permits to explain why instruments such as 401(k) exist and proliferate to other countries. Currently, all OECD countries have an instrument similar to 401(k), often several such instruments. The political economy literature thus far substantiated mechanism behind social security, but the voting mechanism behind tax-favored old-age savings schemes remains a gap to be filled.