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LESSONS FOR AN AGING SOCIETY: THE POLITICAL SUSTAINABILITY OF SOCIAL SECURITY SYSTEMS

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In OECD countries, unfunded social security systems are receiving enormous attention by both economists and policymakers. Most of the debate focuses on the implications of demographic dynamics for such systems' financial soundness. Aging increases the proportion of retirees and reduces the proportion of workers. As more people draw from the pay-as-you-go (PAYG) social security system and fewer individuals contribute to it, an aging society will find it difficult to honour its commitment to pay social security benefits to future retirees. Unless productivity increases fast enough to compensate for the negative demographics or an even larger financial burden is placed on the working generations, current PAYG systems will soon become financially unsustainable. The impact of aging on our unfunded social security systems will call for either higher contribution rates or lower pension benefits, and the political process will have to balance the conflicting interests of different generations.

The effect of aging on the PAYG social security system and its possible reforms depend on political factors. In this paper, we investigate the future of social security systems in OECD countries from this perspective, and evaluate how political constraints shape the social security system in six countries – France, Germany, Italy, Spain, the UK and the US – under population aging. The aim is to provide a *quantitative assessment* of the magnitude of the change in the size of the current social security systems, that is needed to retain their political sustainability under the aging process. In our framework, *political sustainability* of a social security regime or reform identifies the existence of political majority that is willing to support this pension system in all its provisions – such as retirement age, contribution rate, and benefit calculation method.

We view the social security system as a saving vehicle with possible redistributive effects, and identify two main aspects of the aging process: an *economic* and a *political* effect. The economic effect of aging is given by the increase in the “dependency ratio” of retirees to workers. Since the average long run return of a PAYG social security system depends on the dependency ratio and on productivity growth, aging reduces the average long-term profitability of the system. This induces agents to substitute their claims towards future pensions with more private savings, and the size of the system should be reduced. Aging, however, also has a direct political impact: as an older electorate increases the relevance of pension spending on the agenda of the policy-makers, it tends to foster larger and more generous systems. The latter effect is sizeable in all countries. The median age of voters, a summary measure of electorate aging, is expected to increase over the next five decades by six years in the US (from 47 to 53) and by as much as thirteen years in Italy (from 44 to 57).

To evaluate quantitatively how political constraints may shape social security systems under population aging, we analyze individuals' economic and political decisions in the context of a detailed, if unavoidably still stylized, theoretical framework. In their role as economic agents, individuals choose their consumption, saving and labor supply; as political agents, they vote on the social security contribution rates. The outcome is decided by simple majority.

The model is calibrated to capture the main economic, demographic and political aspects, and the institutional elements of the different social security systems in France, Germany, Italy, Spain, the UK and the US, around the year 2000. To simulate how political constraints will shape social security under aging, we feed the model with forecasted values of demographic, economic and political variables for the year 2050, and calculate the social security contribution rates, which arise as a steady state political equilibrium, under different policy scenarios.

Our simulations suggest that increased political influence of the elderly voters leads the size of the social security system, although not always its generosity, to increase in all countries. In our simulation scenarios, Spain, the fastest aging country, would face the largest increase in the social security contribution rate; the largest contribution rate would arise in Italy. When we allow for labor market effects, such as distortions from taxation, the political effect still dominates but becomes less sizeable. The aging process's economic effects on labor supply imply higher employment rates for elderly workers, while reducing the labor force participation of the young.

Our simulations carry a powerful policy recommendation, as they suggest that an increase in the effective retirement age always decreases the equilibrium social security contribution rate, while often increasing the system generosity. Country-specific characteristics not accounted for in our simulations may also matter. In countries such as the UK and the US, the induced increase in the size of the system is likely to be accompanied by a shift towards a less redistributive scheme. In countries with strong family ties, such as Italy and Spain, non-emancipated adult children living with their parents may strengthen the positive effect of aging on social security's political support.

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