

Social Security Rules, Human Capital Formation, and Retirement Patterns

Projektbeskrivelse:

Motivation

Public pension systems are under increased stress in all developed countries. During the last four decades, life expectancy has increased, and labor force participation, especially among older men, has decreased significantly. Gruber and Wise (1999) report empirical evidence linking retirement patterns closely to social security rules, suggesting that provisions favoring early retirement are to a large extent responsible for reduced labor market participation and financial distress facing social security systems in the coming decades. Early retirement creates a double burden for the social security system, by simultaneously reducing contributions and increasing expenditures in the absence of full actuarial adjustment. In addition to entitlement age, social security systems differ in two dimensions. In "Bismarckian" systems pension are earnings-related, while in "Beveridgean" systems they are flat-rate. Another crucial feature of a social security system is whether or not it offers actuarial adjustment. With actuarial adjustment, the net present value of lifetime social security benefits does not depend on retirement behavior.

As it seems that social security rules have caused a significant part of early retirement, it would be natural to study to what extent changes in such rules could moderate the financial pressure on the social security systems. Cremer and Pestieau (2002) even suggest a possibility for a double dividend. Their calculations namely suggest that in Belgium, postponing retirement by three years would simultaneously solve the financing crises and result in a more equal income redistribution than in benefits are cut in order to restore fiscal balance. Wage distribution is taken as given in most literature of the literature analyzing the effects of social security, including Cremer and Pestieau (2002). However, the effective labor supply depends not only on the quantity but also on the quality of hours supplied. Therefore, it would be of great policy importance to know the effects of social security rules not only on labor supply but also on investment in human capital.

Research questions

We have earlier analyzed the effect of alternative social security rules on human capital formation, retirement, and production in Lau and Poutvaara (2001) and in Jensen, Lau, and Poutvaara (2002), which includes also the effects on income distribution. In both papers, we analyze and compare four alternative systems of social security: (i) an actuarial Beveridgean system; (ii) an actuarial Bismarckian system; (iii) a non-actuarial Beveridgean system; and (iv) a non-actuarial Bismarckian system. However, we take entitlement age for social security benefits as given in both papers. The purpose of our current project is to study the consequences of changing entitlement age. We plan to incorporate two or three ability groups, and intend to answer the following questions:

- What are the consequences of changing the entitlement age on production and labor market participation in the four alternative systems for different ability types?

- Is it possible to increase simultaneously both subjective welfare of different ability groups and labor market participation at the older age groups, simultaneously maintaining the current level of benefits?
- Could postponing entitlement age even allow for higher benefits with a lower social security tax rate? The possibility of such a double dividend could arise if postponing entitlement age would encourage middle-aged workers to invest more in their human capital, thus boosting their productivity at the older age.
- What are the distributional consequences of postponing the entitlement age? And how do they differ across alternative social security systems?

Framework

As our analytical framework, we introduce a general equilibrium model of a closed economy with overlapping generations. The analysis is based on a steady state equilibrium under standard assumptions, including intertemporal utility maximization, perfect foresight and perfect competition on each market. In each period of their life, individuals make decisions over time allocation to labor supply, human capital investment and retirement. In our current framework, there are two different ability classes inside each cohort, defined by differences in the productivity of human capital. However, we aim to increase the number of different ability types at least to three in order to get a better picture of the distributional implications of changes in entitlement age. Our numerical model allows us to generate figures depicting time allocation over lifetime for different ability types and different systems. Therefore, we are able to suggest how labor market participation by different age and ability groups depends on social security rules and entitlement age.

References

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