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The political economy of long-term care

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ABSTRACT

We build a two-dimensional political economy model to explain the provision and financing of long-term care and income redistribution. Voting agents differ in need and income opening up two conflicts: one sets families with disabled parents, who are in favor of a public long-term care program, against the ones without such parents who oppose public financing. The other sets the poor against the rich with the former preferring heavier income taxation than the latter. We show that a structure induced equilibrium always exists and that it is unique if informal care is provided in equilibrium. The equilibrium not only explains the negative association of income inequality and long-term care financing but also allows predictions about how demographic change might impact long-term care arrangements and expenses.

1. Introduction

In most developed countries social security systems are under strain and – due to population ageing – financial pressure is likely to become more pronounced in the near future. With increasing life expectancy more people live to a high age enlarging the pool of individuals prone to suffering from ailments associated with the oldest age. Even though additional life years may largely be healthy years, demand for long-term care is expected to increase.[2] To meet this demand more care is to be supplied and financed.

As usual, there are two sources of financing such care, public and private. The peculiarity of long-term care, however, is that private financing does not imply that care is privately purchased. It may well refer to a situation where, for instance, the children care for their frail parents, that is, to an environment where care is provided informally. It is well documented that informal care introduces both, a financial and a psychological burden on informal carers. Financial strain comes in several ways, reduced labor market participation and lower wages (Heitmueller and Ingles, 2007), and forgone labor market opportunities (Bolin et al., 2008). Additionally, the demands of care giving could cause symptoms of depression and decrease both the energy required and the opportunity to engage in social activities (Hughes et al., 1999; Schulz and Beach, 1999). The burden on families with dependent parents can be mitigated by income redistribution, extended publicly financed long-term care or both. While the former directly lowers the financial burden, the latter allows families to cut back

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[2] A study for Germany, for instance, argues that demand for long-term care will triple from 1999 to 2050 (see Schulz et al., 2004).

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on care purchased on the market or to reduce informal care giving and, in turn, increase labor supply. Public financing may thus reduce both, the monetary and the non-monetary costs of old-age dependency.

We assume a political economy perspective to explain the extent of income redistribution and public long-term care financing. To capture the most important dimensions we let the voting agents differ in income and dependency. We think of an agent as a family that comprises one perfectly altruistic parent and one perfectly altruistic child that can split its available time between work and informal care. Parents may or may not be in need of care and children are either productive or unproductive in the labor market. While publicly financed care delivery to disabled parents is uniform, financing is not. We consider proportional income taxation to finance both public long-term care and a lump-sum transfer, where the latter is suited to redistribute income over and above the redistribution induced by the public long-term care program. Our setup assumes that long-term care and the lump-sum transfer are paid out of general tax revenue as this arrangement is the rule rather than the exception.[3]

Obviously, less productive families will be in favor of higher income taxes than more productive workers as they benefit from income being redistributed from the rich to the poor. Families with frail parents prefer higher public spending on long-term care than families with healthy parents. Here, redistribution is from the healthy to the sick. Although this intuition is rather straightforward, the properties of the political equilibrium are not. As is well known, the median voter theorem may not apply in multi-dimensional issue spaces like ours—preferences may not be single-peaked. To tackle this problem we invoke Shepsle's (1979) concept of *structure induced equilibria*. We show that a political equilibrium always exists and that it is unique for the empirically most relevant case, namely, when informal carers are active.

Our most important results are as follows. First, the negative association between income inequality and public spending on long-term care (as shown in Fig. 1) can be supported as a political equilibrium effect. There are two effects that establish this relationship: (i) as public care is a transfer from the healthy to the sick the public program directly reduces need-related income inequality. (ii) The incentives of the median voter (a poor family with dependent parent) to substitute informal care with public care are larger the higher the informal carer's income. As a mean preserving contraction increases the income of poor families there is less informal care but a larger public system in more equitable societies than in less equitable ones. Based on a set of 19 OECD countries we find a negative correlation of −0.56 between the Gini coefficient before taxes and transfers and public spending on long-term care (p-value$=0.013$).[4]

Second, and perhaps somewhat surprising, increasing demand for long-term care (demographic change) may or may not increase public spending on long-term care. This hinges on how strongly informal care giving responds to demographic change. An elastic response would imply a (sharp) drop in informal care giving that, in turn, needs to be substituted by formal publicly financed care. Public long-term care spending rises. If, however, the response is sufficiently inelastic then public spending may go down. This emphasizes the importance of policy measures that aim at improving the feasibility of informal care giving to keep public spending under control, the OECD initiative ‘Ageing in Place’ being a prime example.

This paper contributes to the slim political economy literature on public health care spending. Epple and Romano (1996), Gouveia (1997), and Kifmann (2006) essentially consider one-dimensional problems allowing them to apply the median voter approach to determine the outcome of the political process in which a publicly financed private good is consumed alongside a private supplement. As public provision is targeted while financing is not, low income individuals enjoy a ‘tax price’ below the private alternative and therefore are in favor of a public system. Our contribution is two-fold: (i) we are the first to offer a theoretical political economy analysis of long-term care and (ii) we consider the two most important dimensions when it comes to long-term care or health care in general, namely, income and dependency. In contrast to Epple and Romano (1996) and Gouveia (1997) this allows us to distinguish between the median voter for public care and the median voter for income taxation. This distinction is crucial as median voters turn out to be different types: poor families with frail parents for public care and poor families with healthy parents for the tax rate, respectively. Note also that voting on two dimensions – public care *and* income redistribution – avoids the inherent bias when ignoring income redistribution. As was pointed out by Cremer and Gahvari (1997) leaving out income redistribution may induce public programs to implicitly assume this role. This typically implies that public programs are inflated. Finally, we capture the different modes of care, namely, public, private, and informal. This enables us to emphasize the tax base effect of informal care giving and thereby to incorporate an important characteristic of the market for long-term care.[5]

The paper is organized as follows. In Section 2 we introduce the economic setup. The equilibrium concept is described in Section 3 followed by an analysis of the agents' voting behavior in Section 4. This analysis includes the identification of the median voter's type for each policy issue. Section 5 fully characterizes the reaction functions and demonstrates that a structure induced equilibrium always exists. A comparative static analysis is offered in Section 6 including the interaction of long-term care financing with both, income inequality and demographic change. Finally, Section 7 discusses several model extensions followed by some concluding remarks in Section 8. More technical material, including all proofs, is relegated to the Appendix.

[3] Only 3 out of 19 OECD countries have separate budgets for LTC, namely, Germany, Luxembourg and the Netherlands; see OECD (2005, Table 1.1).

[4] As the financing of public programs typically draws on progressive taxation, the negative relationship is stronger for the Gini coefficient after taxes and transfers (−0.67, p-value$=0.002$).

[5] Although somewhat loosely, the current paper also relates to the large normative literature on the use of public expenditures for redistributive purposes like, for instance, Blackorby and Donaldson (1988), Besley and Coate (1991), Hoel and Sæther (2003), Marchand and Schroyen (2005), and Kuhn and Nuscheler (2011).