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Uncertain altruism and the provision of long term care☆

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ABSTRACT

When family assistance is uncertain, benefits cannot be conditioned on family aid. We study the role of private and public LTC insurance in this environment and compare the properties and optimality of the topping up versus opting out public insurance schemes. Under topping up, the required LTC is less than full insurance and should be provided publicly unless private insurance market for dependency is fair. With an opting out scheme, there will be three possible equilibria depending on the children's degree of altruism. These imply: full LTC insurance with no aid from children, less than full insurance just enough to induce aid, and full insurance with aid. Fair private insurance can support only the first equilibrium. Opting out policies are self-targeted and dominate topping up schemes when the degree of children's altruism is sufficiently large. However, when the degree of altruism is small the dominance goes in the opposite direction.

1. Introduction

Long-term care (LTC) is the provision of assistance and services to people who, because of disabling illnesses or conditions, have limited ability to perform basic daily activities such as bathing, cleaning, and cooking. It is a problem mainly, though not exclusively, for the elderly. In recent years, as people have come to live longer, the demand for LTC services by the elderly population has grown substantially — a trend likely to further increase and intensify in future years. There are two related reasons for this. First, LTC needs start to rise exponentially from around the age of 80 years old; second, the number of persons aged 80 years and above are growing faster than any other segment of the population. As a consequence, in most countries, the number of dependent elderly is expected to more than double by 2050. This will exacerbate the current pressures on the demand for LTC services and lead to new challenges for these countries and their governments.[1]

There are, currently, three institutions that finance and provide LTC services: the family, the market, and the state. The majority of the dependent population receiving long-term care at home rely exclusively on assistance from family members, mainly women; this is often referred to as "informal care". This avenue for LTC provision is, unfortunately, facing a number of formidable challenges: drastic changes in family values, increasing number of childless households, mobility of children, and growing rate of market activity on the part of women (particularly those aged 50–65). As a consequence, the number of dependent elderly who will be unable to count on the assistance of family members is likely to increase. This creates a pressing demand on the other two institutions, the market and the state, to offer either a substitute or a complement to what the family has thus far been providing by way of long-term care.

The aim of this paper is to highlight and study the challenge posed by the idea that family solidarity is uncertain. There are multifold

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[1] For surveys on LTC and for more details on these estimates, see Cremer et al. (2012) and Grabowski et al. (2012).

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reasons for this. First, there are pure demographic factors such as widowhood and the absence, or the loss, of children. Divorce and migration can also be put in this category. Other causes are conflicts within the family, or financial problems incurred by children, that prevent them from helping their parents. Whatever the reason, the possibility of "solidarity default" requires people to take appropriate steps such as self-insuring, purchasing private insurance, and relying on some public insurance or assistance scheme. What makes the problem particularly daunting and ripe for government intervention is the fact that there exists no good insurance mechanism to protect individuals against the default of family altruism.[2]

We study the role of private and public insurance programs in a world in which family assistance is uncertain. We do this by modeling the behavior and welfare of one single generation of parents over their life cycle. When they are young; they work, consume, and save for their retirement. In retirement, they face a probability of becoming dependent. This probability is exogenously determined and parents cannot affect it through their behavior (either when they are young or when they become old). If they become dependent, parents face yet another uncertainty. They may or may not receive assistance from their children. Many factors affect the children's behavior. Some causes of altruism default are purely exogenous but others can be influenced by the parents. Investment in the children's education and inculcating values in them through one's own behavior are such mechanisms.[3]

An important feature of our study is that we do not rule out private insurance markets by fiat. Indeed, we allow for the possibility of parents insuring themselves against becoming dependent. Plainly, however, moral hazard problems preclude the development of insurance markets against the default of altruism *per se* (as opposed to becoming dependent). For the same reasons, the government cannot condition its assistance to the old on the default of altruism; only on age-old dependency.[4] Within this framework, we provide answers to two broadly-defined questions.

One question is the general need for insurance and how it should be provided: privately or publicly. We study the conditions under which private savings will or will not be enough for the three states of the world parents face in retirement (autonomy and dependency with or without assistance from children). When insurance is required, we examine if parents can rely on private insurance markets to secure the extra resources they need in case of dependency (because of the possibility of altruism default on the part of the children). We also discuss the circumstances that call for the government to step in and provide the needed assistance.

The second broad question we address concerns the nature of public assistance. One possibility is for the government to provide all dependent parents with monetary help while allowing them to top this up as they see fit. Another possibility is for the government to provide every dependent parent a "minimal" care facility whenever they ask for it. If this is deemed insufficient, the parents will have to opt out and use their own resources, and their children's, to purchase whatever home care services they need (without any help from the government). The dependent parents consume either one or the other. We examine and compare the properties of these two schemes.

In searching a role for the government, we confine ourselves to scenarios wherein the cost of financing the LTC program is borne by the potential beneficiaries themselves (and not by their children or future generations). In this way, one can zero-in on the insurance reasons for such programs rather than compounding this with issues that arise from wealth transfers across generations. We thus model the behavior and welfare of one single generation of parents over their life cycle. Our interest in their children is limited only to their role in providing assistance to their parents. As a consequence, the welfare of the grown-up children does not figure in government's objective function; only the expected utility of parents. Nor do the children pay any taxes to finance the LTC program (otherwise, they become a "costless" source of taxation to provide benefits for their parents).[5]

In answering the first set of questions we have asked, we find that the scheme the government adopts, topping up or opting out, has an important bearing on the question of who should provide LTC; the market or the state. Specifically, under the topping up scheme, if the probability of altruism is high there is no need for insurance regardless of who provides it. All assistance is provided through one's children and private savings. At lower probabilities, LTC insurance is called for; albeit one that is less than full. Moreover, the amount of insurance varies negatively with the probability of altruism. If private insurance markets for dependency are fair, private insurance will suffice (although public assistance is just as good). At higher than fair insurance premiums, on the other hand, public assistance dominates private insurance.

With an opting out scheme, the *degree* of altruism assumes an important role. This arises because under opting out, the government does not have to worry that the insurance intended for altruism default is automatically provided to all dependent parents (as it would under opting out). There is no leakage of benefits to the parents who are helped by their altruistic children, and thus indirectly the altruistic children themselves.[6]

More specifically, three types of equilibria emerge depending on the degree of children's altruism. If the degree of altruism is "small" or "very large", the optimal solution is for the government to provide full LTC insurance for everyone. With a small degree of altruism, all children opt for the government plan providing no assistance of their own to their parents. With the very large degree of altruism, altruistic children do not consider the government's full insurance plan good enough and opt out of it. Instead of what the government offers, they provide their own assistance. The only option open to the parents of non-altruistic children is of course the government assistance. Interestingly, when the children's degree of altruism is "moderate," lying somewhere between small and very large, the best strategy for the government is to provide less than full LTC insurance. This will be just small enough to entice the altruistic children to substitute their own assistance for the government's.

As to the question of private versus public insurance, we show that the two equilibria which entail assistance from altruistic children—arising when the children's degree of altruism is moderate and very large—can be supported only through the public opting out scheme. Private insurance markets cannot do the job even if they are fair. On the other hand, when children have a low degree of altruism so that the equilibrium is one without assistance, fair private insurance markets are just as good as public insurance.

Finally, comparing topping up and opting out policies, we show that opting out always dominates when children are sufficiently altruistic. This is because under opting out, public LTC can be targeted to the parents whose children turn out not to be altruistic. However, for

[2] The consequences of uncertain altruism for old age retirement have been studied by Chakrabarti et al. (1993) and Leroux and Pestieau (2014).

[3] On this, see Kotlikoff and Spivak (1981) or Cox and Stark (2005).

[4] However, the government has a basic advantage over the private sector in that it can induce "self-targeting". That is, it can devise an opting-out policy with the property that only the old who suffer from the default of altruism opt for this insurance. Exploiting this possibility, and investigating its properties, is an important feature of our paper.

[5] In Appendix C, we explore the implications of including the children's utility in social welfare. Interestingly, our qualitative results do not change. Some of the expression are affected but the changes are minor.

[6] The reason for it becomes clear after we discuss the properties of the two schemes in Sections 2–4. See, in particular, our discussion of this issue in Section 4.5 including footnote 27.