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## **1. Introduction**

Long-term care concerns people who depend on help to carry out daily activities. It is delivered informally by families– mainly spouses, daughters and step-daughters – and to a lesser extent formally by professional care assistants. Formal care is given at home or in an institution (such as care centers and nursing homes). The governments of most EU Member States are involved in some way in the provision or financing of long-term care services. However, the extent and nature of their involvement differs widely across countries.

In the future, the demand for formal care services is likely to grow substantially. Long-term care needs start to rise exponentially from around the age of 80. The number of persons who are 80 years or older is growing faster than any other segment of the population in all EU Member States. It is expected to triple by 2060, according to recent population projections. We anticipate pressure on resources demanded to provide long-term care services. This pressure will be on the three institutions currently financing and providing LTC services: the state, the market and the family.

These three institutions have their pluses and minuses. The family provides services that are warm, cheap and distortionless, but these services are restricted to each individual's family circle. For a variety of reasons, some dependent persons cannot count on family solidarity. The state is the only institution that is universal and redistributive but quite often its information is limited and its means of financing are distortionary. Finally, the market can be expensive particularly where it is thin and without public intervention, it only provides services to those who can afford it.

In this paper we first discuss the nature of dependency in old age and the reasons why it is not easy to insure it. Then, we will give some of the more recent forecasts regarding future needs of LTC. We discuss what explains the underdevelopment of private and social insurance for LTC and what should be done to allow them to meet future needs. A further section is devoted to the role of family.

## **2. The risk of dependency and its insurability**

Loss of autonomy or dependency reflects an inability to perform some of the most basic everyday activities due to old age (e.g. getting up, dressing, washing, eating, walking and so on) and the need for assistance in order to carry out such activities. The loss of autonomy should be clearly distinguished from illness, disability and handicap, although these four concepts are not totally independent of each other. Well-accepted grids are used to provide a way of measuring loss of autonomy that aims to be objective. In other words there is a consensus on the nature of the LTC needs that should be covered by insurers, public or private.

The demand for private insurance will depend on the existence of public schemes and vice versa. For an insurer, either private or public, LTC carries three major hazards<sup>3</sup>.

The first one is the risk of escalating costs. According to some experts, an extension of life span goes hand in hand with an extension of the amount of life spent in a situation of total or partial loss of autonomy. LTC is an emerging risk whose total cost will increase more rapidly than national wealth. This naturally raises the problem of pricing in so far as the underlying trend is still not properly understood.

The second threat for the insurer is the phenomenon of adverse selection, which may imply that only people with a high probability of losing their autonomy subscribe to LTC policies. It has been observed that people buying LTC insurance contracts have a higher likelihood of becoming disabled than those who do not buy such contracts. Similarly, people who discontinue their contracts have a much lower probability of becoming disabled than those who do not.

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<sup>3</sup> This is partially based on Kessler (2009)

The third difficulty for the insurer is that of moral hazard. Within the context of LTC, moral hazard is not due to the behavior of the policyholder but to that of his social environment. The perception of LTC risk is a very recent phenomenon. It does not come from the increasing wealth of society as much as from the rural exodus and the desire for autonomy of both parents and children. Consequently, elderly parents are less and less likely to live under the same roof as their children. This development is certainly nearing its end, but it highlights the point that the notion of dependence is determined by more by the social perception than by medical considerations. This perception is not going to stabilize over the next years. Criteria for loss of autonomy are relatively vague and susceptible to widely varying interpretations, depending on the social climate – in the future we may consider that having trouble taking a bath constitutes a loss of autonomy in bathing, etc.

To sum up, there is today a wide agreement on how to assess the severity of dependence on the basis of standardized medical tests. Yet, at the same time, there is much less agreement as to the nature of care that is called for. To put it otherwise, testing the degree of dependence is deemed rather objective; defining the needs corresponding to a given level of dependency is highly subjective.

### **3. Forecast of needs**

In the projection of EC(2009) dependency rates are drawn from SHARE. The outcome of this scenario is frightening: in EU27, the % change in the number of dependent elderly over the period 2007-2060 is 115; it is 128 for EU10, the “Old Europe”. Assuming a pure demographic scenario, that is, assuming that the probability of receiving formal care at home and formal care in an institution remains constant at the 2007 level, the % change in the number of dependent receiving care in an institution would be 185 in EU27 (155 for EU10); for those receiving formal care at home the % change would be 151 (171 for EU10). Finally, the % change for those relying only on informal care would be 84 in EU27 (119 in EU10).

Finally, according to the *EC 2009 Ageing Report* (EC 2009), public expenditure on LTC is projected to increase by 115% on average for the EU27. The anticipated increase ranges from 65% in France and the UK to 175% and above in the Czech Republic, Spain, Malta, Poland, Romania and Slovakia.

#### 4. The role of family solidarity

Most seniors with impairments reside in their home or that of their relatives, and they rely largely on volunteer care from family. These include seniors with severe impairments (unable to perform at least four activities of daily living). And many people who pay for care in their home also rely on some donated services. The economic value of volunteer care is significant, although estimates of it are highly uncertain. Whether this solidarity is sustainable at its current level is an important question. Sources of concerns are numerous. The drastic change in family values, the increasing number of childless households, the mobility of children, the increasing labor participation of women are as many factors explaining why the number of dependent elderly who cannot count on family solidarity is increasing. An important feature that is often neglected is the real motivation for family solidarity. For long, we have adopted the *fairy tale* view of children or spouses helping their dependent parents with joy and dedication, what we call pure altruism. We now increasingly realize that family solidarity is often based on forced altruism (social norm) or on strategic considerations (reciprocal altruism). In this section, we review some recent work on these issues.

Knowing the foundation of altruism is very important to understand how family assistance will react to the emergence of private or public LTC insurance. For example, the introduction of social LTC insurance is expected to crowd out family solidarity based on pure altruism but not necessarily that based on forced altruism. In families where solidarity is based on strategic exchanges (bequest or *inter vivos* gifts in exchange for assistance) the incidence of social LTC scheme will be a decline in intergenerational transfers. The issue of crowding out is pervasive as it concerns not only the possible substitutability between family solidarity and formal schemes, but also between social and private LTC.

As an illustration of the huge literature<sup>4</sup> devoted to these issues, we mention a few contributions. The classic paper on strategic bequests by Bernheim et al. (1985) views bequests as a compensation for filial attention. This hypothesis is tested for the US. In this type of model parents have a hold on the game. At the other extreme there is the paper by Konrad et al. (2002) who show that some children choose their location in such a way that they will be unable to directly assist their parents in case of dependence. There is a location game with one child ending

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<sup>4</sup> For a survey of this literature, see Cremer and Pestieau (2009).

up living close to his parents, the others locating far away. Whereas this model seems to fit German data, it does not apply in Japan according to Kureishi and Wakabayashi (2007). This literature indicates well that family solidarity is important but that it is not necessarily based on pure altruism but on strategic considerations or social norms.

## 5. The LTC insurance market puzzle

One can be surprised by the very low demand for LTC insurance, which cannot be explained by traditional lifecycle theories. The market is relatively thin in most countries. There are two exceptions: the US with 6 millions insurees and an experience of 25 years and France with 3 millions insurees. We list a number of factors, empirical and theoretical, that can explain the puzzle.<sup>5</sup>

- *Underestimation of dependence risk*

Most people underestimate the private cost of dependency and overestimate the amount of benefits (Cutler,1993). There is also a tendency to underestimate the probability of getting dependent.

- *Crowding out of social assistance*

There is the widespread argument according to which social assistance (in the US, Medicaid) would crowd out private insurance. According to Brown and Finkelstein (2004) the American *Medicaid*, as a last resort payer would explain a 2/3 contraction of the US insurance market even if it were actuarially fair.

- *Adverse selection*

Elderly people seem to have better information than the State or the market as to the occurrence of dependency .It has been observed that people buying LTC insurance contracts have a higher probability of becoming disabled than those who do not buy such contracts (Finkelstein and McGarry, 2003) and people who discontinue their contracts have a much lower probability of becoming disabled than those who do not (Finkelstein et al. 2005).

- *Moral hazard*

*Ex ante* moral hazard does not appear to be relevant. However, *ex post* moral hazard seems to be frequent in that the assessment of needs (rather than the determination of the severity of dependence) is open to controversy. This has lead the French insurers to offer a lump-sum

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<sup>5</sup> For an overview, see Cremer and Pestieau (2009).

reimbursement as opposed to the American policy of reimbursing actual expenses.

- *Altruism*

A LTC insurance reduces the cost of institutionalization and thus will not be bought by parents who want to be aided by their children in case of dependency (Pauly, 1990).

- *Cost of LTC insurance*

The cost of LTC is often considered as prohibitive for most. The yearly price of a *nursing home* in the US ranges between \$40 000 and \$70 000 (Taleyson, 2003).

## 6. Do we need a fifth pillar?

There are very few countries with explicit LTC social insurance program. Among these there are France, Germany and Belgium (Flemish region). Furthermore, these three programs are not very generous: they only cover a small fraction of LTC cost (typically 500€ in Flanders), and yet their sustainability is uncertain. The most developed of these schemes, the German one, was introduced in 1995 and has been coined as the “5th pillar” to the social security system<sup>6</sup>. This LTC insurance covers the risk of becoming dependent on nursing care and it is taken out with the relevant (public or private) health insurance provider.

To be fair, in most countries, health care systems cover the medical aspects of dependence. In addition, the assistance side of social protection provides means tested LTC nursing services. The best known example of that is the American *Medicaid*, which is suspected to discourage the development of an efficient market for LTC insurance.

As we have seen above there is some work on this issue, mostly empirical. There is little theoretical work on the issue of LTC social insurance. To approach this issue, one has to consider a social planner with some objective function comprising equity and efficiency aspects. This planner takes as given the supply and demand responses of individuals and the behavior of families and private insurers into account. If by any chance market forces and family solidarity yield a desirable outcome our central planner does not intervene. A few questions have already been addressed in this area

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<sup>6</sup> The first four are : health, family, unemployment and retirement.



## 7. Conclusions

Europe's era of long-term care (LTC) has arrived. Long-term care concerns people who depend on help to carry out daily activities such as eating, bathing, dressing, going to bed, getting up or using the toilet. It is mainly delivered informally by families— usually spouses, daughters and step-daughters – and, to a lesser extent, formally by professional care assistants. Formal care is given at home or in an institution (such as care centers and nursing homes). Where is the problem? Right now the provision of LTC is not adequate, and the future appears to be gloomy. The source of the problem is twofold, demographic and societal. On the one hand, one witnesses a rapid increase of people aged 80. The issue of dependency arises precisely in that age bracket. On the other hand, with the drastic change in family values, the increasing number of childless households, the mobility of children and the increasing rate of activity of women, particularly those aged 50-65, the number of dependent elderly who cannot count on the assistance of anyone is likely to increase. Those two parallel evolutions explain why there is a mounting demand on the government and on the market to provide alternatives to the family. However, the reasons that explain why the role of the State and the market has been so small up to now are unlikely to disappear spontaneously.

In this paper we have discussed the nature of these causes and the extent to which we can expect them to fade away. The solution of LTC has to be found in an integrated view of the role of the market, the State and the family. One needs public authorities who are willing to do more than just providing cheap-talk about LTC and who are ready to adopt policies that welcome and even foster the intervention of both the market and the family. Solutions exist, but they will not bring us to the first-best optimum. There are problems that cannot be solved even with the best will. The fact that individuals act opportunistically and that they will then hide both characteristics and actions that can be used by private insurers and the government cannot be avoided. This being said, the tracks of reform are known. First of all, much can be done to thicken the LTC insurance market. The government can surely help, but the industry itself has its own responsibility and should exhibit more imagination in the future. Regarding family solidarity, there are measures (part-time work, tax deductions) that can be taken to facilitate combining work and assistance. It is important to remember that family solidarity is crucial, but should rest as little as possible to forced altruism. Finally, the government can intervene not only indirectly by fostering private insurance and family assistance, but directly by providing all sorts of services. First and foremost, a real political will is needed. Even

though we are all threatened by dependency, LTC remains an unattractive political issue. We hope that this will soon change.

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