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I. GUEST EDITORIAL

On private solutions for seniors to cover chronic conditions *

By Jeffrey King⁺

This paper discusses the insurance market for products for “seniors” in Europe, i.e. those aged over 65, with particular reference to those suffering chronic illnesses. It also provides brief information about four products which, if developed further, may assist in meeting the needs of seniors in Europe- especially those who are chronically ill. It also discusses how these products can be more quickly underwritten by insurers.

It examines the need for trust between seniors and their Financial Planning advisors. The paper emphasizes the importance of planning for retirement whilst one is younger and in good health and in doing so, to build a relationship with a trusted advisor as early as possible.

Background

In Switzerland it has been estimated that the percentage of the population aged over 65 will increase from 25% in 2000, to 60% in the year 2060². Similar large estimates of demographic ageing have been made for other countries in Europe³. The costs associated with demographic ageing, e.g. funding future healthcare and reasonable living standards for seniors through social security benefits, are worrying treasury officials of many governments. In considering the problem, governments also have to consider that the tax burden does not become too onerous on future generations, and on companies who provide and fund many social benefits for their employees.

It is a difficult and well-known problem especially in Europe where the 3-pillar system has built an expectation that in their older years, seniors will be “looked after” by their governments and their pensions will be sufficient to maintain a reasonable living standard and healthcare.

The Geneva Association has addressed this and has already proposed a fourth pillar which looks to flexibly extend the working life of seniors past normal retirement⁴. Such an approach recognizes the under-used economic resource of seniors and their experience and “know-how” in the workplace. From the insurance perspective however, providing insurance benefits for those seniors who work past normal retirement will provide challenges, especially for disability insurance - such products are yet to be fully developed.

The Health of Seniors

“Growing old is not for sissies”- Bette Davis

At age 65 whilst many will be in fine health, others are already suffering the effects of disease or accidents. A recent study in the USA⁵ indicated that in the age group 65-74, already 25% of the

* This paper is based on a presentation given at the Geneva Association Conference in Vienna on Chronic Illnesses in November 2006 jointly with my former colleague, Dr. Olga Ruf-Fiedler. Another former colleague Dr. Felix Rembges greatly assisted in the preparation of the original presentation. My thanks to Dr. Christophe Courbage of the Geneva Association for his invitation to write this article and his advice and assistance.

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² Source: Bundesamt für Statistik, Schweiz.

³ See S. Toyne. *Ageing: Europe's Growing Problem*. BBC News/Business. 11 September 2002.

⁴ G. Reday-Mulvey. *Repenser les systèmes de pension par le vieillissement actif*. Presentation. Geneva Association Conference. Brussels. 24 April 2003.

⁵ Health. USA 2006. US Department of Health and Human Services.

<http://www.cdc.gov/nchs/data/hus/hus06.pdf#summary>

population was already subject to a an illness or medical condition that restricted them in some way.

Most seniors will develop a health condition as they age. Some will suffer chronic conditions which will cause pain and debility or cognitive deficit, and may eventually result in the need for both short-term and long-term care. The question arises as to whether insurers can develop sustainable products for those in good health until very old age (i.e. to insure longevity) and to assist those whose health is failing or who already suffer chronic conditions (which nevertheless may continue for several years)? I wish to look at this by discussing four products that may be of increasing importance in Europe in future years.

Before doing so, one must discuss how insurers should best collect evidence on the states of health of seniors if they propose insurance contracts. One factor which may assist insurers is that seniors often have a very sound knowledge of the medical conditions from which they suffer, their treatment and the associated medical tests they have undergone-and their results. Traditionally, insurers have requested applicants to complete an insurance application that contains a long set of health questions (known as a "personal statement"). This will often be supplemented by a medical examination or blood tests or, more often, a report from an applicant's doctor (known as an "Attending Physician's Report" or "APS"). Obtaining such information may take a long time especially when APS is required. Delays in issuing policies that are integral to a senior's needs for the future will often result.

Some alternatives to streamline the collection of health data have been developed, i.e. "tele-underwriting" and data collection through "Point of Sale" computer systems. Both of these could benefit from seniors' knowledge of their own health status.

Tele-underwriting⁶ is a process whereby, after the completion of the insurance application, a trained person, most likely a nurse, will ring the applicant, and ask the questions on the Personal Statement. If a "yes" answer is given to a particular question, the interviewer asks further questions ("drill-down questions) to elicit more information about the disclosure. For example if a "yes" answer is given to a question on Chest Pain, the applicant will be asked for the dates of incidents of chest pain, the symptoms suffered, the diagnosis, treatment and period of treatment, the results of ECGs or other investigations (if known), and the name and address of the attending physician or hospital. Often, the "tele-interview" is underpinned by an expert system that provides the necessary drill-down questions and processes the outcome, enabling an automated acceptance in a proportion of cases.

Also, Point of Sale systems collect the answers in Personal Statements on a laptop or computer held by the insurance agent or broker. They usually are able to provide the same sort of drill-down questions that are employed in a tele-interview. With both methods, questions on the chronic illnesses and the level of debility suffered can be asked. Extensive answers are often given by the claimant, such that the application can be assessed without further medical reports or tests. Additionally the information from tele-undewritten or point of sales applications can be used in conjunction with other tools to derive reasonable estimates of future life expectancy. This is important if the senior is, say, seeking an impaired life annuity (cf. below). Both methods are increasingly used around the World to collect personal statements - across all age groups - and their use will minimize the need for an APS and the delays associated with obtaining this. Faster completion of applications submitted by seniors should then follow.

Products

Long Term Care

This is a product that was initially designed for seniors in the USA where it is available from many insurers. It is also available in France, Germany and the UK (although only a few insurers there

⁶ P.Maynard (Selectx).Tele-underwriting: the long awaited revolution. Centaur Conference. London. April 2004. <http://www.selectx.co.uk/>

now write it) but it is not commonly available in other parts of Europe - possibly because of the extensive cover provided by health insurance products. However as the cost of health care rises in future, social security benefits and health insurance covers may correspondingly reduce. If so, long term care insurance may fill the void.

It is ideally suited to providing benefits to those suffering from chronic illnesses. Long term care (LTC) policies typically provide daily, weekly or monthly benefits if the life insured needs "at-home" care or care within a qualifying institution. Normally the policy includes a requirement for payment when the life insured cannot do 2 or more of the activities of daily living or suffers severe cognitive impairment. LTC policies may be standalone policies or "rider" benefits attached to traditional life insurance policies. Benefits are paid up to pre-defined monetary limits or for maximum benefit periods (though some may also provide lifetime benefits). Other benefits such as Cost of Living adjustments, waiver of premium, respite care, bed reservation benefits and certain provider benefits may also be included. Policies cannot usually be cancelled if there is a poor claims experience and premiums mostly are not guaranteed. An applicant for Long Term Care must disclose their full health history - there is a long Personal Statement - and will be carefully underwritten by the insurer. Exclusion clauses may for example be proposed on some existing medical conditions suffered by the applicant.

For LTC in the USA, Friedrich⁷ has noted that the experience has not always been favourable. Some insurers have withdrawn this product. Friedrich has identified insurers' concerns regarding longevity of those with chronic conditions, combined with concerns over capital requirements, regulatory demands and consumerism demands as reasons for withdrawal from the market. Additionally, he states some companies were hurt by a lack of underwriting expertise. (To some extent this could be overcome through automated underwriting associated with tele-underwriting and point of sale data collection.)

Nonetheless with competent pricing - especially for the longevity risk even when chronic illnesses exist - sound underwriting, and competent disclosure of past health by applicants, a LTC product could well be sustainable in various European countries and provide a market niche which will help meet the needs of seniors.

Impaired Life Annuities

These are annuities designed for those who at the time of retirement are already suffering a chronic illness. Unlike traditional annuities, these are fully underwritten with full details of the applicant's state of health being obtained. After receiving full health data, the insurer makes an estimate of the remaining life expectancy of the applicant. Then considering the lump sum that the life insured is prepared to "invest", an enhanced annuity is offered, noting the shortened life expectancy of the insured⁸.

This contract is popular in the UK- possibly due to legislation there. An illustration shown on the informative UK website, sharingPensions⁹, may assist in explaining this concept. There for a male aged 65 suffering advanced lung cancer with no spread who contributes a payment of £100,000, an annuity of £15,050 may be granted, compared to a standard annuity of £7,390.

For insurers, obtaining sufficient medical evidence to underwrite the annuity is not easy. Tele-underwriting and point of sales systems can assist greatly in this regard although in some cases, an APS will still be needed. Noting in Europe that retirement benefits are traditionally provided through pensions, the Impaired Life Annuity product may be an important niche product to enhance the financial position of those who are already suffering chronic conditions when they reach retirement.

⁷ C.Friedrich. Long-Term Care- Combination Products. A summary. April 2004. Milliman Consultants and Actuaries. June 2004. See

<http://www.milliman.com/pubs/Life/content/research-reports/Long-Term-Care-Insurance-RR04-01-04.pdf>

⁸ For further information see S. Hamdan,C. Rinke. Enhanced annuities in the United Kingdom. Hannover Re's Perspectives- Current Topics in International Life Insurance. Issue

No.2,1998. <http://www.hannoverlifere.com/resources/generic/publications>

⁹ See http://www.sharingpensions.co.uk/pension_annuity3.htm

Combination of Annuity and LTC

An innovative approach suggested by Murtaugh, Spillman and Warshawsky¹⁰ is to combine into one policy two complementary risks. Firstly, the longevity risk - usually covered through an annuity. Secondly, the risk of the life insured becoming chronically ill and needing prolonged care - for which he or she will need financial support and which will ultimately lead to his or her death.

Their model looked at a policy providing an immediate life annuity paying a monthly amount of \$1000 per month whilst the life insured is in good health. This increases to \$3,000 per month if the life insured suffers a chronic illness and is unable to perform 2 of the activities of daily living, and to \$4,000 per month if unable to perform 4 of the activities of daily living. All payments then cease on the death of the life insured – effectively the suffering of a chronic illness reduces the life insured's longevity. Allowances can be made in the product for joint lives and for cost of living adjustments.

A major point in favour of this approach is the minimal need for medical evidence. Only a short personal statement is needed, as the intention is to only eliminate those who are already unable to perform activities of daily living at policy inception. Murtaugh et al. estimate that under this approach 98 % of applicants could be accepted for cover compared to 77% who apply solely for long term care product.

This is not yet a common product in many markets but has the potential to meet long term needs for income and coverage when the life insureds suffer a chronic illness. The minimal medical information needed means the policy can be quickly underwritten and processed.

Critical Illness

Critical illness is a product that has been developed extensively in the UK, Asia, Australia and South Africa¹¹. It provides lump sum cover in the event that the life insured suffers from chronic medical conditions that are covered by the policy- common examples include heart attack, stroke, cancer, Coronary Artery Bypass Surgery, organ transplant and many chronic illnesses. The medical conditions in the policy are rigorously defined - the requirements of the definition must be met before a claim is admitted. Recent changes to the product in South Africa and the UK have increased the number of medical conditions which are covered and as well have introduced partial payments when the claimants' medical condition is less severe. Usually critical illness coverage ceases at age 65. However recent product innovations in Asia have extended cover past this age often to ages 75 or 80 with applicants being able to apply for this cover up to age 70.

Critical illness products are still not common in Europe, but with competent pricing through to older ages, it might be possible to introduce such a product in Europe providing cover to seniors. Rigorous underwriting however is required - there is a long personal statement. Both tele-underwriting and Point of Sale systems are successfully used to collect data and underwrite this product.

The Issue of Trust

For the insurance industry it is important that seniors have confidence in its products and those who are advising them.

When a senior decides to retire he or she faces some major decisions. Hopefully he or she has planned for them for some time. Nonetheless, they will be confronted with social security and taxation legislation that is often difficult to understand. They may face decisions on whether to take some of their pension as a lump sum (or vice versa). As well, they have to understand and decide between the plethora of insurance contracts in the market, and their benefits and guarantees - or

¹⁰ C.M. Murtaugh, B.C. Spillman, M.J. Warshawsky. In Sickness and in Health: An Annuity Approach to Financing Long-Term Care and Retirement Income. The Journal of Risk and Insurance. 2001, Vol.68, No 2, pp 225-254. See <http://www.tiaa-crefinstitute.org/research/articles/060101.html>

¹¹For further history and discussion of this product see Hannover Life Reassurance Limited. Critical Illness. November 2006.

http://www.hannoverlifere.co.uk/resources/hlr/hlr-uk/generic/hlr_uk/HLRUK_pub_critical.pdf

lack thereof. They have to take into account their own health situation and understand how this may impinge on their choices. The fundamental question is how to stretch savings to cover remaining life expectancy taking into account any social security benefits to which they are entitled and other assets and income of the senior.

There may of course be a number of other insurance needs. For example for wealthier seniors, there may also be a need for insurance products to cover death duties or to provide an inheritance or bequest to other family members; for those seniors who continue to work, they will require disability income covers; for those who are self employed and continue to work, there may be ongoing needs for business insurance policies such as key-person covers, partnership protection, succession planning etc..

In many countries the formation of Financial Planning Associations and/or the accreditation and designation of agents and brokers as Financial Planners has helped to build trust and minimize the risk of mis-selling. Members of Financial Planning Associations must conform to a Code of Conduct¹². They must also be prepared to undertake ongoing professional training, peer-review, audit and investigation of complaints against them. Poor results in an investigation may result in sanctions being imposed or even loss of membership of the Association. These are not merely a slap on the wrist - in particular membership, once lost, may not be easily re-obtained and will have severe financial consequences as well as possible loss of career.

A Financial Planner's review of a retiree's needs is comprehensive and examines many points, e.g. determining the retiree's income needs and levels of insurance coverage in future and evaluating the retiree's financial sophistication, knowledge, investment-risk profile (i.e. whether they are risk-averse, risk-neutral or a risk-taker), and the balance they require between volatility (short-term risk) and longer term risk.

Following this, the Financial Planner will review steps already taken and recommend a strategy tailored to fit the retiree's needs. It usually involves recommendations concerning the investment of retirement proceeds; the choice of insurance products to provide certain levels of income; asset restructuring (if necessary); gifting to children or other dependents, and the provision of health and other insurance cover¹³ and many other matters.

Critically though when a retiree already suffers a chronic condition, the focus will be on the effect of the condition on life expectancy and to provide sufficient funds for future treatment. It is important that the financial planner understands the retiree's state of health (at least in general terms or to the extent that the retiree is prepared to divulge this information, noting privacy considerations) and the level of debility that he or she already suffers. Also the financial planner must carefully question the senior on their preference for investing a lump sum versus receiving an annuity- some may prefer to keep funds in a lump sum in case at a later stage there is a further deterioration in health. When an annuity option is chosen, consideration must be given to how to maximize this, noting the future life expectancy of the senior. A valid recommendation should then follow which reflects the state of health and the wishes of the senior.

Conclusion

This paper has looked at some insurance solutions to problems facing seniors especially those suffering chronic illnesses. It discusses the interface between insurance products and benefits from social security and the need for trust between seniors and those advising them in financial matters when they retire. Comment is made on four products, not widely known in Europe, the development of which may assist seniors especially those in poor health. Comment has briefly been made on how to more quickly underwrite these products.

¹² Also see ISO 22222:2005 which sets out ethical behaviours, competencies and experience needed from financial planners

¹³ For further information there are a number of websites. For example see the International Financial Association, see <https://www.fpanet.org/global/public/financial>.

II. ARTICLE I

Insuring old age – A call for new insurance model and mindsets

By James A. Rice*

There is a growing disconnect between retiring citizens and the insurance industry of the industrialized world.

Policy makers and insurance executives in every developed nation are growing anxious about an impending collision of the forecasted economic challenge of an exponential rise in the numbers of person over the age of 65, and the related burdens of chronic disease and an expanding imbalance of too few workers supporting too many more retirees. The seniors in these societies are using not only better health care that has become too expensive, and not only new residential support needs, but they also want cash to support maturing in an age of exploding choices; choice of technologies, travel, and entertainment. These consumers expect to continue pursuing consumer spending options in their post-retirement years. Are their nation's insurance products ready for this onslaught of assertive consumers, or is there a growing disconnect between market desires and insurance products?

Insurance industry leaders need to acknowledge that the disconnect is not just being felt in the insurance industry. Most societies do not yet have good models of post-retirement employment, healthy lifestyles, health care, and residential living arrangements. Human societies have never before experienced such huge concentrations of people with such a high incidence of obesity, substance abuse, and chronic disease. In the next 50 years these multiple and interwoven risk factors threaten to destabilize the economies, productivity, and socio-political well being of most societies. Post-acute health care providers must be transformed into seamless, person-centered systems of health protection, promotion, and restoration. New forms of assisted living residences are needed. Extensive increases in the supply of long-term care givers must be educated and employed. Lifestyles must be induced to be healthier and more active. A multifaceted problem will, of course, require a multi-faceted solution.

The solution must seek to bridge the many disconnects between people that are not farsighted enough to purchase long-term care insurance; people that do not take care of their health; employers that do not support pre-retirement life planning; health care providers that do not embrace new technologies for care monitoring and treatment in homes; a housing industry that does not transform traditional apartment choices to innovative assisted living villages and clusters; and an insurance industry with inflexible walls around its various insurance products for senior citizens.

The Way Forward

If balancing the disconnect between consumer choice and the economic burdens of post-retirement disease and dis-ease is the problem, what is the solution? One essential component of the solution must be the invention of an entirely new form of "insurance" product. A new "blended model of insurance" is needed. Insurance executives must develop a new mindset if they are to develop this new model of "insurance."

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Basic Features of New Blended Insurance Product

The model that will thrive in the market that serves post-retirement seniors in post-industrial economies must borrow features from these traditional products:

- Annuities
- Pension
- Life insurance
- Long-term care insurance
- Long-term disability insurance
- Health insurance
- Health savings accounts

Public policy makers must be prepared to offer more favorable tax treatment for the new blended product to induce expanded interest from employer, employee, retiree, and insurance enterprises. More relaxed and flexible regulatory oversights are needed. Cross national risk pooling and leveling would also help strengthen the economic vitality of these new retiree products.

Private insurance executives need to match these bold shifts in approach and attitude by public policy makers with equally innovative private sector initiatives in product design, product marketing, and product administration.

Transforming the insurance landscape for post-retirees will not be easy. The insurance industry has evolved for hundreds of years into rigid product silos. Each product has its own actuarial niche, accounting, marketing, sales, policy holder support systems, and regulatory burdens. Innovative insurance executives can capture early gains in this growing market by forming and rewarding inter-product design teams that are charged to initiate “rapid design products” for testing in special pilot projects among similarly creative employers and retirees. Retail banks as distribution partners can also be engaged in the rollout of these pilot programs. The design teams should be given 90 days to break down and rebuild the insurance and annuity products into a new blended model. While they work, the insurance regulatory leaders should establish waivers for licensure, capital reserve, and sales regulations that enable the pilot program to be implemented and evaluated. A cluster of large employers, assembled by the national Chamber of Commerce, should be enlisted to participate in a five-year pilot endeavor. These employers should receive inducements to participate via tax holiday and favorable product and pricing support from the insurance industry. Employees near retirement should receive favorable tax treatment of their out-of-pocket payments for the new product, and for the proceeds of the product in their post-retirement.

A five-year pilot is hardly enough time to truly evaluate a product that must have a 20-30 year life, i.e., serve the policy holder from post-retirement at 65 to 85-95 years at end of life or policy term. It should be enough, however, to catalyze innovative product design and market maturation.

National and cross-national insurance associations can contribute to this industry transformation by convening panels of thought leaders and researchers to better refine product dimensions and to cultivate receptivity for these blended products by employers, employees, and retirees. The challenge is too important not to try.

III. INVITED ARTICLE II

Providing informal care: a burden and a blessing

By Job van Exel^{a, b, *}, Ana Bobinac^a, Marc Koopmanschap^{a, b}, Werner Brouwer^{a, b}

Introduction

In any country, considerable parts of the population provide assistance to someone in their social environment in need of care. This informal care is an indispensable part of total care, next to the care provided by the public and private sectors and voluntary individuals and organizations.¹⁴ Figures concerning the size of the informal care sector vary considerably per country, and many countries do not have data on informal caregivers at all. Where data is available, it is not unusual that the number of informal caregivers significantly outnumbers that of formal caregivers. On the basis of demographic trends like the ageing of the population and the increasing labour market participation of women and geographical dispersion of families, future demand for informal care may be expected to rise and supply to lag behind. This constitutes a serious threat for a sustainable supply of informal caregivers – as well as formal caregivers - in coming years (e.g., Robine et al., 2007; Heath, 2002).

People provide care to a loved one for many reasons. Care giving may grow as a natural extension to common household activities in slowly progressing diseases, or people may feel obliged (external motivation) or responsible (internal motivation) to take up the care tasks when the need for care emerges more suddenly. In most research the emphasis is on negative motivations (e.g., obligation, social pressure), but in many cases people also provide care out of a positive motivation, like fulfilment from helping out a loved one in need. Whatever the (mix of) reason(s), most caregivers experience considerable burden from their care giving task (Hirst, 2005). Some studies have even demonstrated that elderly spousal caregivers have elevated mortality and morbidity risks (Schulz & Beach, 1999).

In this paper we discuss the key elements of what it means to be an informal caregiver, with some examples from a study in a heterogeneous sample of caregivers (Van Exel et al., 2002), and how these can be incorporated in economic evaluations of health care interventions. We close off with possible roles and responsibilities for public and private health care organisations.

Objective burden

The first aspect of informal care obviously concerns the actual care tasks people perform and the time and energy claim involved. This is called the 'objective burden' of informal care giving, as it is comparable between people and care situations. Studies of informal care usually distinguish a range of components: the support tasks performed (e.g., household tasks, personal care and (instrumental) activities of daily living); the amount of time spent on each of these tasks; and whether the care recipient needs full time surveillance.

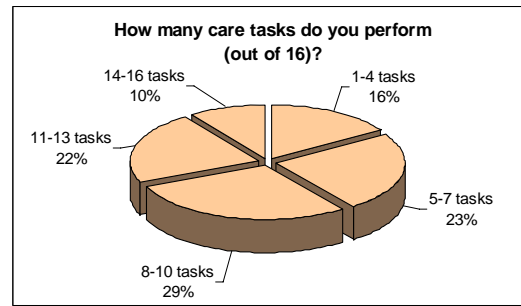
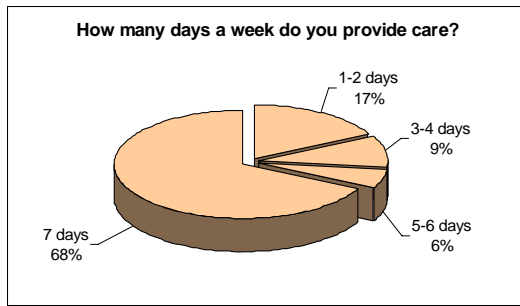
For many informal caregivers the task is more than a full time engagement; a considerable part provides care more than 8 hours a day, 7 days a week, for at least 3 months. The main factors associated with the amount of care a person provides include the health status and housing (independent or institutionalised) of the care recipient, the relation between caregiver and care recipient, whether they co-reside in the same house, the size of the informal care giving network, and the amount of other non formal support (housekeeper, voluntaries, etc.).

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¹⁴ Informal care differs from voluntary care in the sense that informal caregivers had a social relation with the care recipient before the care relation started.



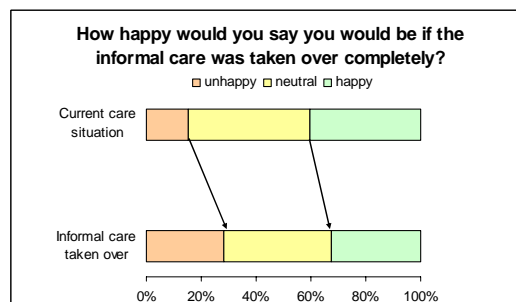
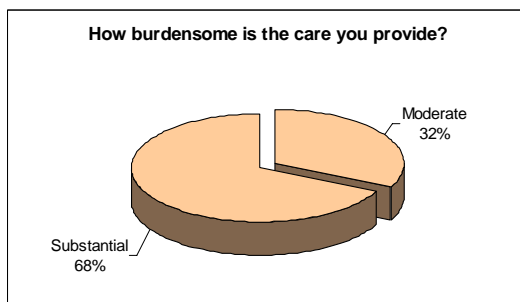
Source: Van Exel et al. (2002)

Subjective burden

How an informal caregiver experiences her or his care task is called ‘subjective burden’ (or caregiver burden / strain), and is related to the balance between the objective burden of the care task and the supporting capacity of the informal caregiver (Koopmanschap et al. 2004). There are many validated measures available for assessing subjective burden, like for instance: Care giving Appraisal Instrument (CAI; Lawton et al., 1989); Caregiver Burden Inventory (CBI; Novak & Guest, 1989); Caregiver Burden Scale (CBS; Montgomery et al., 1985); Caregiver Hassles Scale (CHS; Kinney & Stephens, 1989); Caregiver Reaction Assessment scale (CRA; Given et al., 1992); Caregiver Strain Index (CSI; Robinson, 1983); Sense of Competence Questionnaire (SCQ; Vernooij-Dassen, 1996); and Zarit Burden Interview (ZBI; Zarit et al., 1980). Most of these measures were developed for diagnostic purposes in a clinical setting and therefore focus exclusively on caregiver strain and are not caregiver-preference based. That is, these measures assess burden by asking caregivers to evaluate a series of statements. The total burden score, if at all defined, is then calculated as the unweighted sum of statement scores. The appropriateness of these instruments as measure of the overall perceived burden is therefore questionable, as individual caregivers may weigh the different aspects differently and include aspects in their assessment other than those included in the specific instrument. A measure that has the explicit objective to assess overall perceived burden, that is, the total balance between negative and positive aspects of care giving as experienced (and weighed) by the caregiver, is the self-rated burden scale (SRB; Van Exel et al., 2004).

An alternative measure that was developed for assessing the utility caregivers derive from care giving is process utility (PU; Brouwer et al., 2005). Process (or procedural) utility is defined as the difference in happiness between the current situation in which the care recipient is cared for by the caregiver and the hypothetical situation where someone chosen by the caregiver and care recipient together takes over all care tasks free of charge, all else equal.

Important factors associated with the level of subjective burden and process utility include caregiver’s and care recipient’s health status, various elements of the objective burden of the care task, the relationship between caregiver and care recipient (e.g., partner, parent, etc.), the care recipient’s housing arrangement, and task combination (e.g., work, children) (Brouwer et al., 2004; Van Exel et al., 2005).



Source: Van Exel et al. (2002)

Informal care in economic evaluations

Although subjective burden is an important outcome measure in informal caregivers, it is only an intermediate measure for economic evaluations of health care interventions, at best. Indeed, most

evaluation studies do not even refer to informal caregiver impacts, even those claiming to adopt the societal perspective. This omission may relate to lack of awareness, importance or data, but probably also to lack of knowledge about how to incorporate informal caregiver impacts in economic evaluations (Brouwer et al., 1999).

In case caregivers are affected by an intervention aimed at the loved one they provide care to, the way to address these effects depends on the evaluation methodology chosen. In a cost-benefit analysis, caregiver effects need to be valued in terms of costs (or benefits, possibly). In a cost-effectiveness analysis, it also seems straightforward to value carer effects in monetary terms. In both cases the time spent care giving, which normally is used as measure for the contribution of formal caregivers, could be monetized using the proxy good or opportunity cost methods (Van den Berg et al., 2006). In case one also desires to capture the wider impacts of care giving on the informal caregiver, contingent valuation or conjoint analysis are more appropriate (Van den Berg et al., 2005a; 2005b). In a cost-effectiveness analysis, it is also possible to combine methods used to value only time (like the opportunity cost method) with for instance measures of health effects in informal caregivers, which in principle can be measured with generic quality of life measures. These effects then can be combined with patient effects. More room for a separate handling of such outcome measures exists in a multi-criteria analysis. There, it is also possible to address these wider impacts of informal care giving in terms of effects on caregiver health, quality of life or well-being. A recently developed measure to assess the impact of care giving on quality of life of caregivers is the CarerQoL (Brouwer et al., 2006), an instrument that combines the information density of a burden instrument (by administering seven main dimensions of burden) with a valuation component (a VAS scale for happiness).

In case the intervention that is evaluated is aimed directly at informal caregivers, these same measures could of course be used. In the selection of instruments it is however important to take account of all important effects and, at the same time, potential double counting.

Need and demand for respite

Caregivers maintain their care task longer (and better) if they receive some form of support from other informal caregivers, voluntary caregivers, or health and welfare organisations, especially in case the care task structurally exceeds their supporting capacity (Koopmanschap et al., 2004). Caregivers in need, however, do not always demand respite (Van Exel et al., 2006; 2007). Sometimes this is because caregivers feel they themselves are the best person to look after their loved one or because they view handing over (part of) the care task as a personal failure and letting down a loved one. But it is also known that care recipients may have a strong desire for being cared by a specific person (or even display strong resistance to being cared by someone else, or somewhere else), and so may exercise undue pressure on their primary caregiver. Simply offering support, therefore, may only reach a part of those in need.

Discussion

Informal care enjoys increasing attention from policy makers, health and welfare organisations, and the research field. An important reason for this is that demographic trends and increasing pressure on health care budgets in many Western countries make it necessary to look for alternative resources. Whenever informal care is seen as 'free care' by policy makers, as is often implicitly done in economic evaluations, shifting patients from formal to informal care may appear a very cost-effective option. This, however, is a riskful way of dealing with informal care. Rather, informal carers deserve explicit attention in policy and research and support in daily practice, in order to maintain the benefits of informal care giving. After all, this mostly also is the preferred care situation of both the patient and the caregiver. Another reason is what could be called the 'double boomerang' effect. Informal caregivers that have a care task that structurally exceeds their care giving capacity are at risk of drop out and becoming care consumers themselves. If that happens, two patients require formal care.

It is therefore important to ensure that the preferred caring situation, both at an individual level and often also on a societal level when considering the costs of formal care and institutionalisation, is maintained as long as possible and reasonable. In that context several things are important. First, economic evaluations of health care interventions should identify caregivers and take caregiver

effects into account explicitly, especially if they may be expected to be substantial. Second, care situations that are known to exercise higher pressure on family caregivers require some form of monitoring; not only of the patient's health status, but also that of the primary informal caregiver. Third, caregivers who are expected to be in need should be consulted about their needs and desires for support, taking account of caregiver and care recipient resistance to support, and facilitated to maintain their task, if desired. Development of cost-effective monitoring and support programs is important in this context.

For people in need of care, informal care is often a blessing. Given the illness of a loved one, many informal caregivers perceive providing care as meaningful and fulfilling. However, caring is also straining and may become too much of a burden. If that happens, formal support is required. This is in the interest of the people in question, but also of societal interest. That is something that deserves our care.

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IV. INVITED ARTICLE III

On the financial sustainability of Micro Health Insurance Units*

By David M. Dror[†] and John Armstrong

Introduction

One of the limiting factors for extension of health insurance in low-income countries is the price of the premium. It is clear that the premium must reflect the aggregate risk borne by the insurer, regardless of the rating method applied. However, insurance premiums normally cover much more than the cost of the pure risk, as they must include capital loading (reflecting the cost associated with regulatory surplus requirements and with uncertainty of the risk calculations) and loading for administration (reflecting transaction costs associated with product design, premium collection, cost of reinsurance and profits). The loadings for operational and business risks such as mispricing of underwriting and claims adjudication can be both large and difficult to measure (they are not dealt with here). Additionally, the technical assumptions used to determine profit are not always stated. Therefore, many risk-based capital models include large loads over the measurable statistical fluctuations (in the order of 2 to 3 times or more). In most low- and middle- income countries, this practice nourishes a perception that insurance premiums prioritize profits of rich insurers over protecting poor clients from financial havoc, and could thus be excessive and unfair. Hence, a reasoned discussion of loading to insurance premiums can contribute to transparency, credibility, understanding and acceptance of insurance practices, and by extension to insurance penetration in low-income countries as well as to “making insurance work for the poor”.

Additionally, in many low-income countries health insurance is increasingly sold by or through community-based groups, also known as “micro health insurance units” (MIUs). In terms of insurance modeling, MIUs represent a multitude of fragmented, relatively small sub-pools which are not combined into one large set. The purpose of this article is to provide a discussion on the financial sustainability of MIUs. We seek to investigate the capital needs of MIUs to cover outlier costs, comparing alternative solutions, in particular own capital and reinsurance, bearing in mind the impact of the fragmentation on capital loading.

Background information on micro health insurance in low-income countries

The phenomenon of insuring by or through micro health insurance units (MIUs) is relatively new but by no means negligible. The attraction to deal with MIUs finds its origin in the thought that, just as micro finance enabled poor people to gain access to capital, micro insurance might provide the platform to make health insurance work for the poor.

The term “micro insurance” can be found in the literature for the first time in 1999 (Dror and Jacquier, 1999), but other terms have also been used before and since, including community-based health financing schemes, mutual health insurance schemes etc. In the last few years there has been new published research on the strength of MIUs in gaining clients’ trust, based on the social capital of the group (Preker et al., 2002). Several inventories of MIUs suggest that they have developed mainly in West Africa, in India, Philippines, and Bangladesh, although quite a few MIUs operate also in other South Asian countries (e.g. Nepal) and elsewhere. Overall outreach is now counted in the millions of insureds (Devadasan et al., 2006). Much of the literature looks at MIUs as health systems. For example, what impact do MIUs have on access to healthcare (Dror et al., 2005), or how well do these bodies perform in terms of equality of access among members, their

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contribution to capturing additional resources for healthcare, on expressed willingness to join and willingness to pay for such health insurance (Habibani et al., 2006). Also, it has been reported that MIUs usually cover a partial benefit package and that clients are sometimes involved in defining benefit packages (Miller Franco et al., 2004). Systematizing this practice necessitated the development and testing of a method to elicit clients' preferred priorities, and to assess the judiciousness of clients' choices (Dror et al., 2007).

A fuller summary of the accumulated knowledge on MIUs would be beyond the scope of this paper; therefore, the purpose of this brief review is simply to point interested readers in the direction where they can find more information on this nascent form of health insurance, such as the series of field case studies on good and bad microinsurance practices, published as a book (Craig Churchill (Ed). 2006: *Protecting the Poor: A microinsurance compendium*. ILO). Considering that many MIUs deal with a wide range of heads-of-damage, and operate either as agents or as friendly societies or as mutuals, we wish to limit our reference in this paper to MIUs that cover *health* risks and that *underwrite* the risk at least in part, e.g., MIUs that can be compared to mutual insurers (regardless of whether they are formally licensed as cooperative insurers). Finally, it is noted that the International Association of Insurance Supervisors (IAIS) and the World Bank's Consultative Group to Assist the Poorest (CGAP) have recently embarked on drafting an "Issue Paper on the Regulation and Supervision of Microinsurance", which could offer a framework for possible regulatory provisions for the operation of micro insurance. The aggregate impact of growing outreach, better research, and new thinking on regulation of this form of insurance clearly suggest that micro insurance is on the radar screen of those wishing to see the development of insurance penetration into the informal economy and among low-net-worth persons.

Micro health insurance units need capital

The MIUs that underwrite risk fill the institutional role of providing insurance in surroundings where affordable and pertinent insurance products are usually hard to get. Although the business process and the value chain of MIUs differ from those of commercial insurers, some fundamentals are nevertheless similar. One of these fundamental essentials is the ability of MIUs to pay all underwritten claims at all times. Capital loading is one way to secure that such an engagement is kept. Insurers collect premiums that should normally pay for their customers' losses in full. This implies that when insured losses exceed premium income, insurers must pay for losses out of their own capital. Therefore, insurers need surplus capital as a buffer against insolvency when they experience outlier costs. The higher the uncertainty about the characteristics of the covered risk, the more difficult it is to calculate premiums accurately. In these circumstances, insurers usually increase the capital loading to reduce their risks. The theoretical explanation for capital needs is that outlier costs can occur due to statistical fluctuations in the number or in the cost of claims or both ("underwriting risk"), but also due to other reasons. Incidentally, the same logic applies to operational risks, which are however outside the scope of this article.

It has been shown that MIUs operating with insufficient or no capital are exposed to a considerable risk of insolvency. We must recognize that adding a capital loading to premiums also represents a risk that clients might consider the premiums unaffordable or unfairly high. However, we feel that insolvency is the bigger of the two risks, because default on benefit payment is a bigger dampener of trust, and without trust there is no insurance. We therefore conclude that MIUs need capital (or foolproof capital-relief, e.g., external deficit guarantees).

We focus on the reality of health financing in low-income countries, which includes MIUs; and we explore what can be done to enable them to operate on a sustainable basis, which is also in line with tried-and-tested mechanisms in use by the insurance industry. Two options seem the most likely: reinsurance and partial subsidization. Needless to say, these two options are not mutually exclusive.

Reinsurance

The original purpose of reinsurance is to enable primary insurers to limit their exposure to the (more affordable) average cost of the underwritten risk, while transferring to another risk-carrier the costs linked to unexpected changes in the portfolio or business environment. This relationship is

based on two fundamental processes: (i) Reinsurance enlarges the pool of insureds captured by the primary insurers, for better diversification. This upward move along the insurance “production chain” (which looks like an inverted pyramid) translates to a higher absolute claim-load and a smaller difference between actual and expected results. (ii) Reinsurance simplifies primary insurers’ access to reinsurers’ larger supply of capital and information. Reinsurers may actually be exposed to more outlier risks than primary insurers, but can nevertheless improve the value chain because they can enjoy lower cost of capital through better leveraging; one very tangible aspect is that reinsurers are required to meet lower/different levels of solvency compared to primary insurers. Therefore, they can underwrite more risk for every dollar of capital/surplus.¹⁵ Secondly, reinsurers have a unique inside view of the insurance industry, particularly in markets where they interact with a large number of primary insurers. Therefore, they can share with clients an understanding of how best to address underwriting challenges and management concerns about expanding (or reducing) their existing product lines. This expertise is valuable for primary insurers who are particularly exposed to the risk of error in estimating the underwritten average risk or the cost of claims of a new product (“Innovation error”).

MIUs have limited experience in underwriting risk professionally, and virtually no experience with ceding risks to reinsurance. In fact, two obstacles stand in the way of exploiting this option: the legal/regulatory barrier, and the doubts about clear win-win relations. The regulatory obstacle consists of requiring reinsurers to do business only with registered / licensed insurers; and many MIUs are not registered as insurers, and would probably be unable to qualify for such license due to various financial and formal barriers to entry. Secondly, in most low-income countries, just as most poor people cannot buy insurance, MIUs cannot buy reinsurance. This has been explained by the Chairman of the Supervisory Board of Munich Re, Dr. Hans-Jürgen Schinzler, in his address to the Microinsurance Conference in October 2005: “Premium income is low, administrative costs are relatively high, and infrastructure for insurance is lacking; that’s why commercial insurers have not taken more interest in this market”. But even if the reinsurers would decide to show more interest in the low-income market, MIUs would also need to be convinced that they can gain from ceding the major part of their risks to reinsurance. It is not quite clear who should provide the technical support for such a development. The insurance industry seems in unison that cooperation with MIUs will occur only when reinsurers can earn a profit from it; and most MIUs find it difficult to understand why their poor clients should add to the profits of reinsurers that are much wealthier than the clientele of MIUs. For the time-being, neither governments nor development agencies have agreed to facilitate the development of win-win relations. The purpose of this paper is to show that there is substantive basis for doing so. The following section has more on this.

Government subsidies

It is taken as a given here that subsidies are an effective tool in directing public financing. There is more experience with subsidizing access to healthcare, but some proposals have been formulated to subsidize access to health insurance. For instance, the Commission on Macroeconomics and Health (in 2001) suggested “to offer local communities an incentive scheme, in which each \$1 that the community raises for pre-paid health coverage would be augmented, at some rate of co-financing, by the national government (backed by donor assistance)”.

This proposal to subsidize premiums would probably be complicated to implement due to the known difficulties in efficient targeting and controls against fraud. The analysis of capital loading opens up an alternative route for subsidization of health insurance: reducing the capital loading payable by insureds. This subsidy can be implemented for MIUs, which in any case operate in low-income and rural sub-groups, and which are unlikely to induct persons who live far away from their centre of activity or earn much higher income. The internal logic of why governments should subsidize the equivalent of capital loading resides in taking a risk-equalizing measure that puts MIUs at par with larger groups in terms of financial solvency. Stated differently, if the government had a single (national) pool, its sheer size would have reduced the rate of capital loading; MIUs offering health insurance in lieu of a national or social health insurance should not be exposed to higher vulnerability due to small group size, and their members, who are mostly low-net-worth, should not have to subsidize the cost of government inaction in this domain. In fact, government

¹⁵ Capital/Surplus = Admissible Assets – Liabilities

funding of the capital loading would bring the premium closer to the more affordable cost of pure risk, and this subsidy would be available only to those who agree to pay the (lower) premium. As the insureds would be unable to manipulate this capital loading or convert it into an income-related subsidy in the form of a voucher, this subsidy would be much easier and much cheaper to administer. The cost of capital loading would also compare very favorably for governments with the cost of delivering even a modest form of health insurance, because the cost of the loading is in all cases lower than the total amount of the premium. A practical way of implementing this form of subsidization would be through a reinsurer, namely through the affiliation of MIUs to a designated reinsurer that would offer reinsurance (e.g., stop loss or excess loss) at concessionary rates that reflect no or minimal capital loading.

This logic suggests that governments should be keen to support links between MIUs and a reinsurance facility, either by creating such facility directly or by enabling a nongovernmental Social Reinsurance to function. And one way to encourage such development is through subsidies.

Findings

Using the 2001 data set of a health insurer containing upward of 1.4 million insureds, and running 1,005 iterations, we proceeded with the following economic evaluation of MIUs: (i) an estimate of their capital needs; (ii) quantitative estimates of the impact of group size on capital requirements, relative to overall cost of the claim load; and (iii) a comparison of the cost of retaining capital with the cost of a reinsurance premium.

The detailed analysis (Dror and Armstrong, 2006) of the impact of group size on capital needs of MIUs suggests that for an identical risk-exposure and an identical premium, MIUs may go bankrupt when larger groups would not. This quantitative illustration is extremely important for two reasons:

First, it demonstrates that the poor are acting logically in refusing insurance that offers them lower financial protection for the same price that ensures higher financial protection to other insureds. Some would argue that the poor should be allowed to pay a lower premium, reflecting their lower ability to pay. But even those who reject this approach and plead for equal cost for the same level of risk-mitigation must surely agree that it is unreasonable to expect the poor to pay a higher premium for an identical insurance product, emanating from a higher capital loading due to smaller group size. This illustration of the premium bias suggests that the market alone does not offer an automatic corrective measure; thus, insurance regulators would have a role to play in ensuring fair pricing that would not disadvantage clients of MIUs.

Secondly, this is the first illustration of inherent reasons why MIUs must break away from stand-alone operations if they are to keep the cost of transfer of risk at affordable levels. The cost of transferring risk is linked to the size of the pool, and conceptually different from the cost of diversification.

The analysis has shown that governments have many options to correct the premium bias caused by the higher capital requirement that MIUs must meet. Some of the options would be to subsidize the difference in capital loading that is directly related to small group size, by applying the capital loading rate that would apply to a large (national) group rather than the higher rate applicable to smaller MIUs. Governments could also create a facility that would allow MIUs to draw loans to meet their capitalization requirements in bad years. Additionally, governments could subsidize the difference in the cost of applying a lower confidence level by offering insolvency protection at a higher confidence level. This is of course very similar to reinsurance.

It should be stressed that interventions aiming to correct the size-related premium bias of MIUs address the cost of risk transfer (from individuals to small groups and from small groups to larger ones) without influencing the cost of risk bearing (which relates to the pure risk component of the premium).

It has been shown that the solution of reinsurance is cheaper than capital loading (by reference to a model that provided a generalized formula for the cost of reinsurance relative to standard deviation). And it has been shown that MIUs need capital from inception. This leads us to suggest that MIUs cannot forego reinsurance from inception.

Reinsurance is a safer solution for governments compared to other alternatives, such as rolling out a modest version of social health insurance. The cost of universal cover under social health insurance is forbidding for most low-income countries, and can put governments under heavy pressure to constantly increase budget allocations as the needs grow. On the other hand, government facilitation of access to reinsurance, notably by subsidization of part of the reinsurance premium, mitigates governments' risk that they might have to pay without cap in cases where MIUs fail financially. By opening the tried-and-tested route that links MIUs to reinsurance, governments would have no more risk related to MIUs than they have in respect of any commercial insurer. The option of subsidizing the reinsurance premium would also be a more interesting alternative for governments than setting up social health insurance, because the subsidy of the reinsurance premium would be payable only in conjunction with premium payment by – and thus revenue generation from – the end beneficiaries of these subsidies. Such balance between revenues and payments would be very difficult to ensure through the alternative route of social insurance for the poor. Also, the accounting and accountability of flows of funds between insurer and reinsurer is much more stringent than can be expected from a publicly funded social health insurance.

Conclusion

In conclusion, the simulation exercise reported here shows that an increase in portfolio size increases diversification of risk (and vice versa); that without capital loading, the MIU are exposed to an unacceptable risk of insolvency and bankruptcy; and that reinsurance is a cheaper substitute to holding solvency capital directly. These findings confirm that the basic principles underlying the success of insurance apply equally well to MIUs, which are in an embryonic form of underwriting risk and are usually composed of small groups. This confirmation is very important in determining the role of MIUs, and shows that if the barriers-to-ceding-risks to reinsurance that MIUs face today were removed, MIUs could offer a relevant and sustainable vehicle for extension of insurance penetration among low-income persons in low-income countries.

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V. INVITED ARTICLE IV

Uncovering preferences over long-term care financing: results from a discrete choice experiment

By Adam Joseph Tipper*

Introduction

This work addresses the public's preferences for financing their formal long-term care (LTC) when they reach old age. Issues of ageing populations and spiraling LTC costs are troublesome to LTC policy makers. By investigating the preferences, and difficulties, of individual LTC financing, we hope that policy makers strongly consider the needs of the public and not just the implications ageing populations and cost spiraling have on the state finances.

Individual financing of LTC is not a straightforward endeavour. Apart from public sources, individuals can draw upon insurance, wealth and income to finance LTC in old age. Private insurance for LTC is uncommon, with the burden generally falling on the government to provide such care in the UK. Reasons for lack of insurance take up may be due to familiarity and dependency with the extensive welfare state system, 'myopia' as young individuals may find it difficult to plan for their old age care needs and lack of information regarding risks and needs of old age. Wealth, such as the savings and capital accumulation from working life is often drawn from to pay for LTC. Privately owned property constitutes the main source of personal wealth in the UK: 71% of those 65 or over owned and occupied their home in 2000 (Hancock et al.). Many are, however, often forced to sell their homes to pay for LTC. Income, however, may be derived from a number of sources, such as state or private pensions, interest on private savings and post-retirement work. Income earned in old age is, however, unlikely to be sufficient to cover the costs of LTC. An individual, therefore, faces a number of considerations and options in deciding how to pay for LTC. With individuals faced with tough financial and temporal choices in deciding how to finance LTC, we need to understand the decision process faced by LTC consumers.

Methods and attributes

This research is not attempting to ask whether government provision or a private insurance policy is preferred to finance LTC. It has already been shown that in the UK government provision is preferred (Deeming and Keen, 2003). Deeming and Keen's findings also showed that collective public financing was stable across income groups. As income rises, individuals were willing to substitute from means testing into top up although this trend reversed for the highest income groups. Instead, we are attempting to go in depth and find specific features of LTC that are important, thus asking the question 'what features of long term care yield the greatest amounts of utility?' Hence we constructed a discrete choice experiment. The respondent was asked to choose a best and a worst attribute in the choice set which maximises the utility difference between them (Flynn et al., 2005).

The five attributes for LTC financing, identified from the literature and summarised in table 1, attempt to uncover the preferences on characteristics of LTC; namely, risk behaviour, time preference, barriers to entry and financial planning. *Coverage risk* refers to what type of formal care the policy covers, that is, the 'breadth' of coverage. As most individuals are risk averse and costs of care are high, consumers would be expected to aim to cover as many aspects of care as possible. The levels were identified as covering only nursing home care or covering nursing home care and care in the home, reflecting policies that are complete or incomplete. *Life span risk* refers

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to the 'length' of coverage. As one's life expectancy is generally unknown, care may be required for longer than thought. The levels were 'you will be able to receive care for the remainder of your life' and 'you will only be able to receive care for 5 years'. Five years is to some extent arbitrary but is not far from the length given by private insurance (Perace and Bovagnet, 2005). *Access to care* is not always immediate, and reflects a barrier to entry for care. Two levels were identified for care access, these being that care is received only when care providers feel it is necessary, indicating a waiting period, and immediate access implied by the level stating 'you will receive care as soon as you feel it is needed.' *Finance* needed to account for the size and number of payments and where the funds come from. Four levels were constructed, ranging from selling the home and savings to pay for care to funding that is spread over the life cycle and where possessions are retained. A *quality* attribute was also included to consider further the trade offs individuals make and reflected recent concerns that the current level of LTC is unsatisfactory. Four levels were chosen, namely that the care is of excellent, good, fair and poor quality.

Preliminary results

The analysis was based on a sample of 51 respondents from the Bristol region, selected randomly from the electoral roll. As questionnaires were still being returned at the time of conducting the analysis, the available results are only indicative of the expected final results. Table 2 shows the utility values for both the attributes and their levels. Preliminary statistics suggest that coverage risk is the most important attribute but the level effect is not so important. Poor quality and financing from savings late in life appear very detrimental to utility. All variables 'moderately large payments from 45', 'access determined by authorities,' 'care by nurse only' and 'fair quality' were significant. A 'good' policy will, therefore, cover individuals' needs for the type of care they require, high levels of quality and spread payments over a number of years.

Policy Implications

With these results in mind, the current political emphasis on maintaining disabled people in their homes is supported. Recent efforts to improve the quality of care are also justified, although making sure poor care is avoided is more of a priority than attempting to provide excellent care. Ways of distributing information about LTC options should be addressed as so to ensure that individuals know they can spread payments over the life cycle and to make sure they cover themselves for the type of care they are likely to need.

Although ageing populations are of concern to LTC financing, the ability of individuals to work longer and accumulate wealth may offset some of this worry. By making small payments throughout the (now longer) life cycle, the funds for financing LTC can accumulate and offset the uncertainties and discontent associated with selling the home to pay for LTC. This may be an unintended bonus to the UK government's recent initiative to increase the working age.

These recommendations come with a caution as it remains to be seen to what extent factors such as gender, income and experience play a role in the determination of preferences.

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Table 1: Attributes and levels

Attribute	Level	Description
Cover risk	0	Only nursing home care will be provided
	1	Both nursing home care and care in the home will be provided
Life span risk	0	You will only be able to receive care for 5 years
	1	You will be able to receive care for the remainder of your life
Care access	0	You will only receive care when care providers feel it is necessary
	1	You will receive care as soon as you feel it is needed
Finance	0	When you need care you will pay for it by using your savings and selling your home
	1	You will make a few large prepayments from the age of 65 with a high chance of having to use your savings and sell your home to fund these payments
	2	You will make some moderate prepayments from the age of 45 with a low chance of having to use your savings and sell your home to fund these payments
	3	You will make many small prepayments throughout your life with no chance of having to use your savings or sell your home to pay for care
Quality of care	0	The care will be of poor quality
	1	The care will be of fair quality
	2	The care will be of good quality
	3	The care will be of excellent quality

Table 2: Utility values of attributes and levels, weighted least squares analysis

Dependent Variable: Ln BW		Coefficient	P value
Level			
	bwindic	-0.8003698	0.000
	Time cover	0.9150460	0.005
	Type cover	1.1958100	0.005
	Quality	0.9810787	0.003
	Access	0.9936515	0.015
Attribute			
	Constant	3.3439660	0.000
<i>Life span risk</i>	5 year provision	-1.3019340	0.000
<i>Finance</i>	From savings	-0.6707481	0.016
	Large from 65	-0.7296066	0.011
	Moderate from 45	0.4213353	0.193
<i>Cover risk</i>	Nurse only	-0.6731325	0.052
<i>Quality</i>	Poor	-1.6876750	0.000
	Fair	-0.2279504	0.645
	Good	0.8241517	0.033
<i>Access</i>	Provider decision	-0.4809029	0.151

F(14,13)	4.2400
Prob> F	0.0066
R-sq	0.8202
Adj R-sq	0.6266

VI. CONFERENCE SUMMARY

Summary of the fourth Health and Ageing Geneva Association Conference on “Chronic Conditions and Insurance”

By Esko Kalimo*

The Conference was the fourth in a series of international conferences on Health and Ageing organised by the Geneva Association. It took place in Vienna on 6-7 November 2006 and was hosted by UNIQA. The increasing longevity of populations is already evident in the industrialised countries, and the lengthening life expectancy will contribute to fast growing elderly populations also in the developing countries. As a result, the prevalence of the chronic health conditions is rising, causing mounting needs for covering the health and related social risks. The programme of the Conference looked at various issues reflecting these trends, from the biological and social roots of chronicity and its consequences to the recent developments in insurance companies to offer products to help to cover the changing risks. The Conference was attended by 50 participants representing insurance companies and other interested parties in many countries.

The Conference was opened by Mr. Patrick Liedtke, Secretary-General of the Geneva Association, who welcomed the participants and stressed that the Conference has a forward-looking perspective in one of the fastest growing issues of the private insurance business. He stated that various challenges and solutions will be discussed with a view to understanding better the activities in the future to help the increasing number of ageing people to stay healthy until old age. This, in turn, will assist in containing the costs of the old-age pension and health care schemes.

Dr. Peter Eichler, Member of the Board, UNIQA Personenversicherung AG, Vienna, welcomed the participants on behalf of the local host and expressed his wish for fruitful deliberations throughout the Conference.

The first thematic session, which was on Chronic conditions and their characteristics, was opened by professor Fred Paccaud, Director, Institute of Social and Preventive Medicine, University of Lausanne, who discussed long term care for chronic diseases. Due to increasing longevity, the age-related diseases, especially cancer, cardiovascular disease, arthritis and neuropsychiatric disorders, are becoming more prevalent. Mortality has decreased in many Western countries among the 75-84 year olds in recent years. Thus, more acute and long term care is needed for more and more patients. These challenges also point out the role of various forms of prevention, including healthy behaviour patterns, early diagnosing and screening.

The metabolic syndrome, diabetes and cancer were discussed as a challenge for medicine in the future by Dr. Wolfgang Munda, Medical Director, Generali Insurance, Vienna. He outlined the risks related to increasing obesity in Europe, with an emphasis on the metabolic syndrome, which is an important determinant of the growing risk for cardiovascular disease and diabetes. Here the reduction of obesity, the increase of physical activity and an appropriate diet, with a specific avoidance of fats, are the key preventive measures. Even a moderate reduction of weight reduces the risk of many diseases. Promoting healthy life styles is essential. He discussed also cancer, which has become an increasingly important cause for losing man-years in many countries. In spite of the improving treatments of many forms of cancer, its prevention and early detection are significant measures.

Dr. Marc Suhrcke, World Health Organization, Venice, gave a presentation on the economic consequences of chronic conditions. The costs of ill health have recently been evaluated at the microeconomic and macroeconomic levels as well as from the point of view of public policies. The contribution of improving health to the economy in the European Union has been found to be considerable. Health is a part of human capital, which plays a major role in economic outcomes. In addition to the direct costs of health care, a non-healthy chronically ill person has an increased risk

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of unemployment and early retirement, which decreases his/her economic output. It has been estimated that a decrease of the cardiovascular mortality by ten per cent might trigger GDP by one percent. On the other hand, the services, products and institutions of the health care system account for about 7 % of GDP in the EU-15 countries.

Prof. Norbert Bachl, Head of the Faculty of Sports Science and University Sport, Vienna, reviewed the role of physical activity in preventing and overcoming chronic conditions. He stressed that the goal is to die “young” as late in life as possible. Regular physical activity is a key factor in the primary prevention of many diseases and it is also useful in advancing physical wellbeing and thereby the total quality of life. Yet, the personal responses to physical activity programmes may vary due mainly to genetic factors. These programmes need thus to be tailored according to the genetic background of the person. Physical activity is also instrumental in reducing obesity, a fast growing health risk in the industrialised countries.

In his presentation, Dr. Peter Eichler, Member of the Board, UNIQA Personenversicherung AG, Vienna, discussed the role of insurance companies in preventing chronic conditions. He started with a remark on the increasingly problematic role of escalating chronic conditions in health insurance schemes, both in underwriting and in compensations. The promotion of healthy life styles by information, motivation, personal action plans and social support is worth considering as an activity of insurance companies, with additional emphasis on other preventive activities, including screening. Yet, more factual evidence is urgently needed about the cost-effectiveness of these activities. The provision of cash premium discounts to prospective clients who have passed the fitness profile is a discriminatory but timely measure for use in voluntary health insurance schemes. Austrian legislation prevents from discriminating clients according to their genetic structure, although, with the accumulation of genetic knowledge, this will become a real menace to the insurance companies, when only those persons may apply for a policy who know that they have the risk gene.

The organisation of the coverage of chronic conditions from the viewpoint of life and disability insurance was reviewed by Dr. Siegfried Ackermann, Chief Medical Officer, Allianz Life Insurance Company, Stuttgart. He focused on the German market, where risk assessment has become a commonplace, when the client has a free choice of benefits. In underwriting, a risk assessment is increasingly necessary, leading to different modes of reviewing prospective clients: accepting with a standard rate, with a substandard rate or a refusal. Most clients are accepted using the standard rate. He underlined that in private insurance, the rules that are once agreed for a policy cannot be changed later. This is different from social insurance, where there is no risk assessment, the contribution (premium) may vary according to the social status of the client, and the rules are subject to change, often due to amendments in legislation. It is necessary to seek new insurance solutions for persons who cannot get a private insurance using the normal rules. The best advice for the clients is: Get your insurance cover as early in your life as possible.

The challenge of managing and insuring the growing risks of chronic disease was the topic of Dr. James Rice, Director, Cambridge International Health Leadership Programme, Cambridge University. At the outset, he referred to the ongoing world-wide demographic revolution. Simultaneously, the chronic conditions are escalating in number with a major impact on the cost of care, accompanied with developing expensive technologies. Also the expectations of the consumers are rising. The preoccupation with the medical model is not adequate; health promotion with an emphasis on living conditions and behavioural patterns will form the basis of preventive measures. Also the health care systems are not sufficient, when compared with the increasing needs for care. The crisis is made worse by the deepening shortage of health care givers, both formal and informal. The experiences from long term care insurance have not been promising, and the clients have also lost their interest in them. Finally, the present insurance models do not meet the needs of the clients sufficiently well, and there are even problems in the underlying actuarial and sales systems.

Innovative insurance products for elderly and the challenges in underwriting were examined by Dr. Olga Ruf-Fiedler, Vice President, Winterthur Group, Switzerland, and Mr. Jeffrey King, Senior Underwriting and Claims Consultant, Winterthur Group, Switzerland. They considered that seniors are now a major challenge for the European insurance companies. While the number of the aged

is growing fast due to increasing longevity, the social security schemes find it more and more difficult to cope with the rising needs. Hence, there is a growing market for private insurance aiming at meeting the increasing demand from the seniors. They form a widening market segment, and their needs call for many types of insurance products, even quite new ones, e.g. longevity cover (annuity), health insurance and long-term care, investment products, coverage for those working past the general retirement age, tax and inheritance planning, etc. The development of insurance products for new risks will also require a careful consideration of the underwriting process, where specific tools will have to be developed especially for the more sophisticated insurance products. Charging the correct premium according to the client's risk factors, using sufficient actuarial advice, is a must for any commercially sustainable insurance product.

The final paper of the Conference was given by Mr. Stephan Schinnenburg, Executive Board, IDEAL Versicherung, Berlin, who talked about the implementation of the strategic decision of the IDEAL company to be a specialised insurer for the generation 50+. The company has focused on the senior citizens' market since 1998. This strategic decision was based on the forecast that the elderly will be the fastest growing population group with their specific insurable risks. The company offers a large variety of insurance products for the elderly following their life cycle and forming a continuous chain until undertaking. The marketing of the company is active with an emphasis on the development of new products for novel risks. Specific attention is paid to easing the underwriting process. The clients are also served through the internet by calculators that help them to assess the risks and the related premiums and benefits.

All in all, the presentations in the Conference brought up clear messages for insuring the senior citizens. They are a noteworthy market segment with many acute and chronic health problems, accompanied with increasing needs for health and social care. The role of commercial insurance is becoming more and more important, when the resources of the public social security schemes are meeting their limits. Accordingly, the wide variety of emerging risks and their more complex risk structures may call for new insurance products. The procedures for underwriting and the types of benefits need careful consideration to enhance sound risk management in order to make the new insurance products sustainable in the long run. Primary, secondary and tertiary prevention may also turn out to be here cost-effective activities of private insurance business. Research and development stand out as a potential tool in outlining a comprehensive insurance coverage for the risks of the senior citizens.

VII. SYMPOSIUM ON NEW HEALTH TECHNOLOGY

The Brocher Foundation (<http://www.brocher.ch/>) presents
in collaboration with the London School of Economics Health and the Geneva Association
a symposium on:

“Technology, innovation and change in health and healthcare”

Geneva, 18-19 October 2007

Scientific organisers:

Joan Costa-Font (University of Barcelona & London School of Economics) and
Christophe Courbage (Geneva Association)

Speakers will be composed of top academics and high-profile professionals. Due to the limited number of places available, participants will be accepted on a first come first serve basis. No attendance fee is required.

Should you be interested in participating, please contact the Brocher Foundation at scientificprog@brocher.ch or the secretariat of The Geneva Association.

Preliminary Programme

Thursday October 18

10.00 An Overview of Technology Innovation and Diffusion

- *The process of Innovation: Incentives, Behavior and Organization*
Stan Metcalfe, Manchester University
- *Innovation Technology in Health Care*
Alistair MacGuire, LSE

11.45 Innovation, Adoption and Diffusion in Health Technology

- *Technology change in hospital and primary care*
Nick Bosanquet, Imperial College
- *Diffusion of health technologies in the pharmaceutical sector*
Victoria Serra, LSE

13.00 -14.00 Lunch

- *Medical technology adoption under uncertainty with learning*
Joshua Graff Zivin, Columbia University
- *Dynamics of emergence and evolution of health technologies*
Andrea Mina, Manchester University

16.00 Medical Technology and Insurance Incentives

- *Health technology - A challenge to insurance*
Peter Zweifel, University of Zurich
- *Genetic advances and health insurance*
Michael Hoy, University of Guelph
- *Insurance Coverage and the Demand for New Drugs: Evidence from the United States*
Marin Gemmill, LSE

Friday 19 October

09.30 The Regulation and Consumption of New Health Technologies

- *Intellectual property rights and pharmaceuticals development*
Joan Rovira, University of Barcelona
- *Demand for Health information on the internet*
Caroline Rudisill, LSE
- *Perceptions of cloning risks in the European Union*
Joan Costa-Font, University of Barcelona & LSE

12.00 New Health Care Technologies

- *Pharmacogenetics: a new concept in health care*
Klaus Lindpaintner, Roche Genetics
- *The convergence of nano-, bio- and information technology leading to innovation in healthcare*
Nicola Pangher, Ital TBS S.p.A

VIII. HEALTH CONFERENCES

2007

- April 14** **Unite For Sight's Fourth Annual International Health Conference** on "Innovation, advancement, and best practices to achieve global goals", Palo Alto, U.S.A. For further details, please visit http://www.uniteforsight.org/2007_annual_conference.php
- April 26-28** **8th European Health Economic Workshop**, Otto-von-Guericke University, Magdeburg, Germany. For further information, please visit <http://www.med.uni-magdeburg.de/fme/institute/ismhe/ehew/>
- May 4** **2007 PETRIS Symposium** on "Implementing health care reforms in California", University of California, Berkeley. For any further information, please visit www.petris.org
- May 19-23** **12th International Meeting of the International Society for Pharmacoeconomics and Outcomes Resesarch (ISPOR)**, Arlington, USA. For any further information, please visit <http://www.ispor.org/meetings/future/index.htm>
- May 24-28** **5th European Conference on Tropical Medicine and International Health - Partnership and Innovation in Global Health**, Amsterdam, Netherland. For further information, please visit <http://www.trop-amsterdam2007.com/>
- June 20** **Green care: Health effects, economics and policies**, organised by the Austrian Horticultural Society, Vienna, Austria. For further information, please visit <http://www.umb.no/?viewID=21524>
- July 8-9** **6th International Health Economics Association World Congress**, Copenhagen, Denmark. For further information, please visit <http://www.healtheconomics.org/congress/2007/>
- August 15-17** **28th Nordic Health Economists Study Group (NHESG) Meeting**, organised by Institute of Public Health, University of Tartu, Estonia. For further information, please visit <http://www.ut.ee/>
- Sept 30 – Oct 3** **24th International Conference of The International Society for Quality in Health Care**, Boston, USA. For any further information, please visit <http://www.isqua.org/>
- October 18-19** **Technology, Innovation and Change in Healthcare**, co-organised by the Geneva Association, the Fondation Brocher and the LSE Health, Geneva Switzerland. For further information, please contact the secretariat of the Geneva Association.
- November 15-16** **Beyond Health Insurance: Public Policy to Improve Health**, organised by the College of Medicine and the Institute of Government and Public Affairs of the University of Illinois, Chicago, USA. For further information please contact kaestner@uic.edu
- December 6-7** **French Health Economists Days**, co-organised by the CES and CRESGE. For any further information, please visit <http://www.ces-asso.org/>

IX. PUBLICATIONS ON HEALTH ISSUES

Health Care Issues in the United States and Japan, edited by David A. Wise and Naohiro Yashiro, NBER book, published by University of Chicago Press, 2006, ISBN: 0-226-90292-7. This book explores the structural characteristics of the health care system in both nations, the economic incentives underlying the systems, and how they operate in practice. It shows that a great deal can be learned from a comprehensive comparative analysis of health care issues in these two countries.

Decentralization in Health Care: Strategies and Outcomes, edited by Richard Saltman, Vaida Bankauskaite, Karsten Vrangbaek, published by Open University Press, 2006, ISBN 9-780-335-219-254. This text explores the capacity and impact of decentralization within European health care systems. It examines both the theoretical underpinnings as well as recent practical experiences, drawing upon both published literature and evidence collected directly from the field. The book also assesses the appropriateness of management processes within health systems for implementing a successful decentralization strategy.

New Technologies in Health Care - Challenge, Change and Innovation, edited by Andrew Webster, published by Palgrave Mcmillan, 2006, ISBN 1-403-991-308. This book provides a detailed and comprehensive analysis of the implications of new health technologies for society, the delivery of health care, and the very meaning of health itself. It is based on new, critical social science research integrated according to core themes, making it accessible and engaging. It will be of special value to students and researchers in Social Sciences, Health Studies and medical schools.

Financing Health care: A Dialogue Between South Eastern Europe and Germany, edited by Ulrich Laaser and Ralf Radermacher. Published by Lage, Jacob Verlag, 2006, ISBN 3-89918-154-9. This books presents how Eastern European economies have been facing challenges in redesigning their health systems in the past 15 years. It also covers various issues relevant for the German health financing system

The Health Care Workforce in Europe - Learning from experience, edited by Bernd Rechel, Carl-Ardy Dubois and Martin McKee, published by The Cromwell Press on behalf of the European Observatory on Health Systems and Policies, 2006, ISBN 92-890-2297-3. This new book brings together the experiences for a range of countries that are endeavouring to secure a trained and motivated workforce towards achieving a high-performing health systems. It also intends to provide lessons for others facing similar health care workforce challenges. Available for download at http://www.euro.who.int/observatory/Publications/20060915_4

Mental Health Policy and Practice Across Europe, edited by Martin Knapp, David McDaid, Elias Mossialos, Graham Thornicroft, published by Open University Press, 2006, ISBN 0-335-214-673. This book maps the current state of policy, service provision and funding for mental health care across Europe, taking into account the differing historical contexts that have shaped both the development and delivery of services. A holistic approach is adopted that aims to assess the influence on mental health of environmental factors such as housing, poverty, employment, social justice and displacement.

Private Medical Insurance in the United Kingdom, edited by Thomas Foubister, Sarah Thomson, Elias Mossialos and Alistair McGuire, published by The Cromwell Press on behalf of the European Observatory on Health Systems and Policies, 2006, ISBN 92 890 2288 4. This study provides a descriptive overview of the market for supplementary voluntary health insurance (VHI), or private medical insurance (PMI), in the United Kingdom. The structure of the study reflects the three principal dimensions of the market: the product (Chapter 2), demand (Chapter 3) and supply (Chapter 4). An appendix discusses the market for health cash plans, an alternative type of private medical expenses cover with a relatively broad take-up. The Introduction provides the background necessary for understanding the nature and role of the market for PMI.

X. GENEVA ASSOCIATION PUBLICATIONS

The Geneva Papers on Risk and insurance – Issues and Practice

Vol. 32 - N°1 - January 2007

CONTRIBUTIONS FROM THE 33RD GENERAL ASSEMBLY OF THE GENEVA ASSOCIATION, MAY 2006

Changing lifecycles and their impact on insurance

- Changing life cycles and their impact on insurance, by Didier Blanchet
- A “tour d’horizon” on the continental European life insurance market, by Rolf Dörig
- Climate change and the global insurance industry
- Climate change impacts on personal insurance, by Gilles Benoist
- Climate change and the global insurance industry, by Michael Hawker
- Climate change and the global insurance industry: Impacts and problems in Latin America, by Filomeno Mira

Insurance, finance, Solvency II and financial market interaction

- Insurance and the capital markets, by Jozef de Mey
- Insurance, finance, Solvency II and financial market interaction, by Michael Butt
- Insurance and the fixed income capital markets, by Y.C. Wu and David Soanes

Insurance, distribution and customer satisfaction

Emerging from a turbulent marketplace, by Arthur Ryan

Key developments of IFRS and the coming phase II

- IFRS for Insurance: CFO Forum proposals, by Denis Duverne and Jacques Le Douit

ALSO

- The Finnish pension reform of 2005, by Jukka Lassila and Tarmo Valkonen
- The EU Reinsurance Directive, by Alastair Evans
- Some novel perspective on risk classification, by R. Guy Thomas
- German proposal for a standard approach for Solvency II, by Thomas Schubert and Gundula Grießmann
- Integrated, consolidated or specialized financial markets supervisors: Is there an optimal solution?, by Jan Monkiewicz

Vol. 31 - N°4 - October 2006

SPECIAL ISSUE ON HEALTH

- Editors: Christophe Courbage and Joan Costa-Font
- On Health, Ageing and Insurance (Editorial), by Christophe Courbage and Joan Costa-Font
- Population Ageing and the Sustainability of the Spanish National Health System: Some Financial Policy Alternatives, by Gemma Abio Roig
- “Steeping” of Health Expenditure Profiles, by Florian Buchner and Jürgen Wasem
- Behavioral Analysis of the Choice of Community-Based Formal Home Care, Informal Home Care and Nursing Home Care in Japan, by Tetsuji Yamada, Chia-Ching Chen, Tadashi Yamada, Marianne Fahs and Tetsuo Fukawa
- The Interaction of Public and Private Health Insurance: Ireland as a Case Study, by Brian Nolan
- Are Private Health Insurance Subscribers Unsatisfied with the Spanish National Health System?, by Joan Costa-Font and Mireia Jofre-Bonet
- Insurance Coverage and the Heterogeneity of Health and Drug Spending in the United States, by Marin Gemmill, Joan Costa-Font and Panos Kanavos
- Risk-Adjustment in Long-Term Health Insurance Contracts in Germany, by Johann Eekhoff, Markus Jankowski and Anne Zimmermann
- Lifetime Subsidies in Australian Private Health Insurance Markets with Community Rating, by Luke B. Connelly and H. Shelton Brown III
- Evaluating Health Insurance: A Review of the Theoretical Foundations, by John A. Nyman
- Do Micro Health Insurance Units Need Capital or Reinsurance? A Simulated Exercise to Examine Different Alternatives, by David M. Dror and John Armstrong

The Geneva Risk and Insurance Review (formerly the Geneva Papers on Risk and Insurance Theory until March 2005)

Vol.31, No. 2 / December 2006

- Aggregating risk capital, with an application to operational risk, by Paul Embrechts and Giovanni Puccetti
- Optimal insurance contract under a value-at-risk constraint, by Hung-Hsi
- Adverse selection in the annuity market with sequential and simultaneous insurance demand, by Johann K. Brunner and Susanne Pech

Vol.31, No. 1 / June 2006

- Optimal Insurance Contracts without the Non-Negativity Constraint on Indemnities Revisited, by Michael Breuer
- The Design of an Optimal Insurance Contract for Irreplaceable Commodities, by Rachel J. Huang, Larry Y. Tzeng
- Underwriting Profit Margin of P/L Insurance in the Fuzzy-ICAPM, by Li-Hua Lai
- A note on Risk Aversion and Herd Behavior in Financial Markets, by Jean-Paul Decamps, Stefano Lovo
- Analysis of Embedded Options in Individual Pension Schemes in Germany, by Alexander Kling, Jochen Russ, Hato Schmeiser
- Optimal Financial Crises: A Note on Allen and Gale, by François Marini

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No. 324 / March 2007

3rd International Insurance and Finance Seminar of The Geneva Association
London, 7 – 8 December 2006

No. 323 / March 2007

2nd Chief Risk Officer Assembly
Munich, 20 - 22 November 2006

No. 322 / February 2007

M.O.R.E. 20 Seminar of The Geneva Association on
The Role of Risk Management and Insurance in the Leisure Industry
Madrid, 16 – 17 November 2006

No. 321 / January 2007

33rd Seminar of the European Group of Risk and Insurance Economists
Barcelona, 18 – 20 September 2006

No. 320 / December 2006

4th Geneva Association Health and Ageing Conference on
“Chronic Conditions and Insurance”
Vienna, 6 – 7 November 2006

&

4th Congress of the European Union Geriatric Medicine Society
Special Session on “The Financing of the Longevity Risks”
Geneva, 24 August 2006

No. 319 / November 2006

MORE XL “ ‘P-PPP’ – ‘Partnership in Prevention, Precaution and Protection’ ”
Zürich, 20 - 21 September 2006

&

4th ART OF CROs, 2006
Rüschlikon, 17 – 18 October 2006

XI. CONFERENCES ORGANISED AND/OR SPONSORED BY THE GENEVA ASSOCIATION

2007

March

7-8	Singapore	7th Asian CEO Insurance Summit co-organised by Asia Insurance Review and The Geneva Association
13	Paris	Insurance & Adaptation to Climate Change , lead organiser is Ecole Polytechnique Paris, ADEME
20	Zurich	The Geneva Association and Group of 30 Conference on Financial Stability
22-23	Milan	14th International Space Insurance Conference
22-23	Geneva	23rd PROGRES Seminar

May

21-22	Edinburgh	5th ART of CROs meeting of The Geneva Association
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June

6-9	New York	34th General Assembly of The Geneva Association (members only)
15-16	Lecce	12th Joint Seminar of the European Association of Law and Economics (EALE) and The Geneva Association

July

9	Berlin	Geneva Association / IIS Research Awards at the occasion of the IIS Annual Assembly
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September

17-19	Cologne	34th Seminar of the European Group of Risk and Insurance Economists
24-25	Paris	MORE 21 – Conference on Management of Risks in the Economy
25	Paris	25th Anniversary of the World Fire Statistics Centre

October

8	Turin	The New Welfare: The Counter-Ageing Society , organised by The Geneva Association, Macros Research and The Risk Institute
11-12	Rome	Montepaschi Vita Annual Forum , organised by Montepaschi Vita and The Geneva Association
18-19	Geneva	Technology, Innovation and Change in Health and Healthcare , in collaboration with the Foundation Brocher and the LSE Health

November

8-9	Paris	4th Liability Regimes Conference , a joint initiative by Munich Re, RSA, SCOR, Swiss Re, Zurich Financial Services and The Geneva Association
26-28	Zurich	3rd CRO Assembly jointly organised with Swiss Re

December

6-7	London	4th International Insurance and Finance Seminar of The Geneva Association
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