

Household Rating

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Household Rating

Summary

In contrast to the heavily analysed motor account the risk factors underlying household insurance have in the past attracted little attention and rating was on a simplistic basis. The losses arising from storm and particularly subsidence have led to changes in the rating of cover for buildings in the past year. The working party initially hoped to identify the underlying risk factors and relate these to claims data but it soon became apparent that no worthwhile data would be available as the relevant factors are not recorded. Data analyses have, therefore, been restricted to one particular topic which concerns the usefulness of geological data for rating the subsidence element of the risk.

The numerical results of the data analyses will be presented during the conference session. The following short notes cover

- possible rating factors for household
- the background to the geological data available
- recent changes in the household market.

Household Rating Factors

The working party reviewed the rating factors that were likely to be relevant for the purposes of claims experience analyses, model fitting and/or product pricing. The full set of potential rating factors was as follows:

- Area (postcode sector)
- Age of property
- Type of construction (brick/timber/thatched etc)
- Value (sum insured or number of bedrooms)
- Type of property (flat/house/detached etc)
- Type of cover (indemnity/new for old/index linked)
- Type of contents (jewellery/audio equipment/painting/high risk items)
- Type of use (residential/business)
- Type of heating
- Owner occupier/council house etc
- Alarms
- Neighbourhood watch
- Age of insured
- Occupation of insured
- Criminal record (if any) of insured
- Pets
- Smoker/non-smoker
- Unoccupied/Second homes
- Length of time with insurer
- Excess/NCD

The potential rating factors vary according to the exposure by risk type, as follows:

Buildings

- Fire** - Value, construction, type of heating, alarms, location (relative to emergency services)
- Storm** - Area (coastal), construction, type (flat, detached, terrace etc), value
- Flood** - Area, type, value, claim history
- Subsidence** - Area, age of property, value, construction, extension, trees nearby
- Freeze** - Area, type of heating, age of property

Contents

- Fire** - Value, construction, type of heating, alarms and location (relative to emergency services)
- Water** - Area, type of heating, age of property
- Flood** - Area, type value, claims history
- Theft** - Area, value, alarm, neighbourhood watch, age of insured, unoccupied, length of time with insurer, tenancy, claim history, second homes, occupation
- Accidental Damage** - Age of insured, pets, audio equipment, high risk contents, tenancy, length of time with insurer, area, value, occupation

British Geological Survey Subsidence Data - GHASP 1

In recent years the Insurance industry has seen an unusually large number of claims in the property sector. Some of these claims have arisen from unusual conditions in the bedrock, leading to cracking or subsidence of the foundations.

Previously, the pattern of past claims had been a reasonably reliable basis for estimating future claims. This however, may not be the case where fundamental changes have occurred in the condition of the bedrock. It seems sensible, in the circumstances, to look more closely at the geological background to these changes; in particular, to see which rock sequences and structures are susceptible to geological hazards.

The Geo-Hazard Susceptibility Package, version 1 (GHASP 1), is a digital information package created and designed by the British Geological Survey, a component body of the Natural Environment Research Council. GHASP contains information on the susceptibility of different parts of the country to ground movements covered by the term 'subsidence'; it deals in particular shrink/swell clays, landslips, cambering and gulling, shallow mining and natural dissolution. It does not deal at present with running sands, compressible deposits such as peat, or with landfill and made ground, although these other causes of ground movement may be included in a later version. The information is a national database, covering the whole country apart from the Scottish Highlands.

The purpose of GHASP is to aid the insurance industry in establishing more accurate and detailed building insurance ratings. To this end the data is subdivided down to the postcode sector level. It is especially useful in assessing an insurer's exposure to subsidence risks and in analysing associated claims.

It is intended that the system should assess each geological hazard across each postcode sector as a whole, yielding an average figure for risk in each sector. The areas of the sectors vary greatly, being small in the cities and much larger in open country.

The most important element of GHASP is the interpretation of the BGS geological databases to arrive at an accurate and well founded assessment of hazard susceptibility nationwide. The interpretation has been carried out by field and engineering geologists with life-long experience of BGS surveying in their own regions. This pool of expert local knowledge and experience ensures that the interpretation is carried out to the highest professional standards.

The results of the interpretation are presented as a map and table each sector, giving a quantitative assessment of the susceptibility to each hazard, averaging out across the sector. The quantitative assessment is compiled by calculating the

percentage area of each hazard in the sector and multiplying by a local and a national weighting, each in the range 0 to 1.

The national weighting is an overall assessment across the UK of the importance of each hazard to the insurance market based on BGS's past experience.

The local weighting is an estimate by the geologist with detailed knowledge of local conditions, of how far the susceptibility of the rocks to a particular hazard will develop in practice.

Finally, the totals for each hazard are added together to give a postcode sector factor (PSF). This is a measure intended to be on a linear scale of the overall susceptibility to subsidence within the postcode sector.

GHASP 1 is not intended for site-specific applications and cannot safely be used for such purposes. Advice on the hazard susceptibility of a particular site can be obtained from BGS Insurance Hotline.

Where the package indicates a susceptibility to a geological hazard, this does not necessarily mean that it has occurred in the past or will occur in the immediate future. Many hazards are triggered by changes in the local environment, such as rainfall levels, changes in the watertable, excavations, construction and so on. However, the local weighting within each postcode sector have been used to try to accommodate such changes, so that the susceptibilities reflect not only the past history of the area but also have predictive value for the future.

Embedded within GHASP are databases from Geoplan showing the postcode boundaries and from the AA showing scattered geographical information for location purposes. Both the postcode database and the BGS geological map coverage are revised periodically and accordingly, GHASP will be updated annually to include these changes.

Household Rating

The Market

Up until recently household rating was on a very simple basis. The main determinant of premium was the chosen (somewhat arbitrary) sum insured. Buildings insurance was rated at the same level across the country and the only variation was for properties with specific risk features such as non-standard construction (eg thatched) or in known flood areas. Companies had introduced postcode rating for contents in the early 1980's in response to inner-city problems. However, in other respects contents business was moving away from individual rating with the introduction of premiums related to the number of bedrooms rather than sum insured and a package approach to items previously treated as optional extras.

The use of rating factors in the household market needs to take account of the dominance of the building societies as a distribution channel for buildings and, increasingly, contents cover. The sale of the insurance cover at the end of the process of arranging the mortgage, life cover etc is said to require a simple approach and no real selling is involved. Conversely, the method of sale means that a great deal of information regarding the property and the insured, which could be used for rating, has already been obtained from other purposes. Changes in the overall level of premium rates and changes to the structure of the rating systems have been slow to have an impact owing to the need to renegotiate with building societies and the delay to next renewal of each individual policy.

The main trends recently have been

- increased overall level of rates in response to catastrophes, cost of reinsurance, subsidence and rising crime
- the postcoding of rates for buildings insurance
- in the relationship between insurers and building societies.

The introduction of postcoding to the rating for structure was prompted by subsidence and differentials are supposedly based on the subsidence experience. It is debatable as to whether past experience will be of good guide to future experience but, given the widespread effect of drought conditions in recent years and the relevance of clay soils to subsidence claims, one might consider it reasonable in this case. However, there is still enormous variation between the relative rates charged by different companies for a particular postcode. It is possible to find postcodes where the rates of even the major companies may vary by

a factor of two. What is certain is that under cover of postcoding companies have taken the opportunity to increase overall rates by around 15%.

Previously insurers determined the gross rates to customers and paid the building societies a (high) rate of commission on the premium generated. There is now a tendency for insurers and societies to agree the net rate to be paid with the premium charged to the policyholder determined by the society based on its own analysis of its competitive situation and other needs. The implied rate of commission in the rates is still of the order of 25-30% and, with difficulties in their main spheres of operation, these earnings form a significant proportion of building society profits. Profit commission terms have tended to disappear. Insurers want to benefit from the good years to pay for the bad whilst the societies have realised that profits on household are not guaranteed.

The basic cover on buildings has not altered although some insurers have tried to reduce their exposure to subsidence with higher deductibles. On the rating side it is possible to obtain buildings policies with no specific sum insured. These policies are rated on size (number of bedrooms), type, age and location of property. This basis is in line with the factors underlying the rebuilding cost guides for buildings distributed by companies and aims to estimate the rebuilding cost directly without the arbitrary choice of sum insured by the policyholder.

The rise in the level of household premiums is making the market more price-sensitive and also leading to the return of underwriting. Some of the factors discarded in the past such as day-time occupancy are returning either directly or in the other form such as age discounts. As this trend continues insurers will start to analyse their household accounts more closely and look for other risk factors to enable them to be more selective.