



# The right numbers

The need for more accurate data and improved infrastructure is occupying insurers' Solvency II teams. However, Sam Barrett finds that UK firms are well prepared when it comes to accuracy of information.

DATA IS ESSENTIAL for accurate risk assessment and, with *Solvency II* putting it at the heart of its requirements, insurers are focusing their attention on ensuring it is as accurate, consistent and complete as possible.

"You can have the most fantastic tools to understand the risk but if the underlying data isn't accurate or consistent, it's fairly pointless," says Graham White, chief underwriter for Europe at Tokio Marine Europe. "If you put rubbish in, you get rubbish out."

While the state of preparedness varies across the industry, with some insurers already well advanced in their plans, there is more awareness of the need to address any issues relating to data. "There's definitely a sense of urgency around data," says José Margo, chief risk officer at Groupama.

He says there are three areas of focus for data, in line with the three pillars of *Solvency II* — data foundations and infrastructure; the governance and validation of the data; and

ensuring the infrastructure enables the reporting. "Logically these run in order but you need to consider all three to ensure the infrastructure is in place to enable the governance and reporting," he adds.

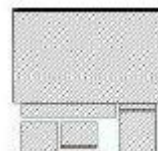
But some insurers are already ahead of the game. As an example, Axa Insurance recognised that data quality was going to be central to the new requirements early on, launching a data governance project three years ago. This involved setting up a data quality forum to establish what was required. "Data accuracy is important for insurance itself, not just for *Solvency II*, so it made sense to initiate this project," says Jean Drouffe, group finance, risk and strategy director at Axa Insurance.

Starting with around 20 different systems, Axa rationalised them down to 10 and set up a central data repository to ensure data accuracy and consistency. So far, it has completed around 80% of the work and expects it all to be completed by

the middle of 2012.

Other insurers have been in the enviable position of having less work to do. As an example, Stephen Wilcox, chief risk officer at Allianz Insurance, says he is pretty comfortable with his company's data without being complacent. "We've been very stable for the last 10 or so years in terms of takeovers and acquisitions, so we had good data to start with and didn't have to make a large investment into new infrastructure. We are making improvements though, for example, moving manual processes over to automated ones to give us greater control," he explains.

Further, for some insurers, other legislation has also helped them prepare their data ahead of *Solvency II*. This is the



case at Markel International. "We built a data warehouse some years ago to enable us to get all our data into a similar format. This was a major step forward," explains Greg Shepherd, director of risk management at the insurer. "We've also benefitted from having a US parent as we've been through the *Sarbanes-Oxley* compliance process. Although there are differences, many of the data requirements are consistent."

As well as establishing the necessary infrastructure to ensure data can be captured and accessed easily, work has gone into identifying data gaps. These could either be where data has not been recorded accurately or where a new piece of data is required under *Solvency II*.

#### Identifying gaps

As part of Axa's data governance project, Mr Drouffe says some gaps were identified. "Around 80% of these gaps were known. In the past we would have corrected them at the end of the chain but we have now amended this so they are corrected at source to ensure greater accuracy," he explains.

A similar process has been in place at QBE Insurance as it looks to improve the quality and accuracy of its data. "We have been collecting more data," says Rob Saxon, geographical risk analyst at QBE Insurance. "But there's also been a big push to have better controls in place so we can ensure the accuracy of the data."

To help achieve this it, QBE uses a geospatial risk solution to assess the quality of the data. "This checks the address information against Royal Mail and Ordnance Survey information and will flag up any areas where data is poor for the underwriters. This helps us identify 5 where we need to get more data," explains Mr Saxon.

He says that QBE will have looked at its whole book by September to see where there are any data gaps. "We will have picked up any issues and complexities by then," he explains. "If we get 80% to 90% of the data in a good format that can be run through a standardised process we can then focus on the weird, wonderful and more complex. This is where our expertise can be concentrated."

Consistency of data is another issue, with insurers required to nail down exactly which pieces of data they need to collect. Mr White says that part of the challenge is knowing what value to capture. "There could be so many definitions within our industry, within European countries, that for consistency's sake, you have to determine what value you are going to use otherwise the data can

become less meaningful. There may only be a small variation in each data but, if you multiple it by thousands of transactions, the scale is totally unacceptable."

As an example, he says that from a property point of view, the base value could be inflated, declared, contract, the estimated maximum loss and so on. On top of that any excess or deductible also needs to be captured. Mr White adds: "You may also need to factor in the currency and which exchange rate you want to use. Values may mean different things to different people."

The quest to improve data across the board has also meant that many organisations have looked at where they can improve existing data to enhance their risk analysis.

As an example, Willis Re collaborated with Pitney Bowes Business Insight to improve its international geocoding abilities, enhancing its data ahead of *Solvency II*, while also enabling it to carry out more in-depth risk analysis.

#### High quality data

"We need high quality and highly accurate data to help us to understand the exposure. This enables us to locate an insured property from the address information given to us by the insurer so we can understand the risk," says Nigel Davis, team leader for product development at Willis Analytics. "A lot of time and research goes in to building better hazard models and understanding uncertainty within them. Often less attention is given to managing the spatial uncertainty associated with the insured properties or other assets. This means the risk isn't fully understood."

In some countries, a combination of postcode and very detailed address systems, such as the Ordnance Survey, can help an insurer understand risk. Mr Davis points to the recent floods in Australia as an example of where the availability of detailed address data has been invaluable. "We've been able to pinpoint where properties are so we can identify whether or not they're in a flood zone. This means we can work with insurers to understand and quantify their expected losses," he explains.

Another important source of data are public databases on building construction. This can give insight into the methods and materials used for a building, creating a better picture of the risk accumulation.

The type of data required can also depend on the peril. As an example, Eddy Vanbeneden, managing director at Guy Carpenter, says that what is required to

accurately assess risk for a wind storm will be very different to what is required for flood. "For windstorm, postcode level data is generally sufficient as the models are not always well calibrated when we are looking to a more detailed level of information. Instead it's more important to have data on the construction of the property and policy conditions, as this will affect the scale of the loss. Conversely, with a flood, it's very important to know the address of the property and to geocode the risk," he explains.

While the appetite for data means there is a flurry of activity across the insurance industry as collection and validation processes are put in place, there is a warning that understanding is needed about what is being collected. "There's little value in capturing high quality exposure data that isn't fit for purpose," says Mr Davis. "If you're collecting high resolution data, you need to be clear why. It's not always necessary if it exceeds the accuracy of a hazard model and will often come with an additional cost."

While capturing the right data and ensuring its accuracy throughout an insurer's systems is a must, using the data is also important with visualisation tools making it much more accessible. Being able to see data graphically rather than on a spreadsheet makes it much easier to digest and analyse. Eric Paire, managing director at Guy Carpenter, explains: "It's much easier to spot errors but you can also use visualisation tools to show patterns in terms of accumulation and type of risk. You can then superimpose your own data over different events, such as storm tracks, to get a view on your exposure."

Presenting data in these more visual formats also means it's easier to gain support from management. Mr Wilcox explains: "Very few people like pages of numbers, but there are lots that like graphs and pictures. It can be really useful when you're trying to gain understanding from management to show them a suite of graphical representations."

Brian Heffernan, chief risk officer at Mitsui Sumitomo Insurance, is also a fan of visualisation tools. For him, being able to see everything in totality enables the data to be better understood but it brings another benefit. "We want to get this out of the domain of the actuaries and visualisation tools can enable this," he says. "*Solvency II* affects the entire business so it's essential

that everyone can see the implications of what we do.”

#### Minimising damage

Whatever stage of preparations an insurer is at, it is essential to remember that the benefits of having accurate and consistent data extend beyond compliance. Underwriting can be more refined, allowing pricing to more accurately reflect the risk. On top of this, it can be used to identify fraud. “We have models that help identify postcodes that are more vulnerable to theft or fraudulent arson. With enhanced data you can really see patterns of risk,” says Mr Saxon.

Knowing where exposure is can also help to improve the customer experience. As it is possible to predict the path of weather events such as tropical storms and hurricanes, steps can be taken to minimise the damage. “An insurer could contact those policyholders at risk so they could prepare for the weather

event or they could mobilise loss adjusters to deal with the claims. This can lead to a better customer experience and enhanced customer loyalty,” says Mr Davis.

But, although the need for more accurate data and improved infrastructure may be occupying insurers’ *Solvency II* teams, most feel the UK is well prepared for the new regime. “The UK is ahead of the curve in its preparations,” says Mr Heffernan, adding that he is particularly pleased with the work Lloyd’s has put in to ensure its members are ready. “Its desire is to be

*Solvency II*-ready around six months in advance, which has really helped. The Financial Services

Authority has also been proactive, and we’ve seen it giving updates at plenty of conferences,” he adds.

Mr Wilcox also praises the FSA, saying it has made it clear that it is the insurers’ rather than the regulator’s responsibility to ensure data accuracy. “Sometimes you wish they’d release information earlier but we’re used to this,” he says. “But we’ve got the fundamental legislation: the direction of travel is clear.” **POST**

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