Solvency II: Time to get your data in order

With only 15 months left until the Solvency II deadline hits, insurers need to take urgent action to make sure that the data they use is accurate, complete and appropriate, regardless of whether data is sourced internally or externally. Ensuring effective data management is fundamental to complying with Solvency II three pillars: Pillar 1, which sets the Quantitative requirements for minimum capital to be held; Pillar 2, which focuses on optimal quality of internal controls and governance, and lastly, Pillar 3, which promotes greater transparency to regulators and markets. While all insurers need to recognise the level of data challenges in achieving Solvency II, clever insurers will also use this as an opportunity to gain competitive advantage by improving risk management and establishing best practices for data management.

Insurance organisations typically have disparate business units revolving around multiple legacy systems and custom build applications, many of them dating back 20 to 30 years. This has led to critical challenges, including multiple versions of customer data for each line of business, inconsistent policy information, incompatible data formats and lack of adoption of data standards.

A big data perspective

To make compliance even harder, increased mergers and acquisitions and the use of new customer channels such as social media, have seen the insurance industry's data grow exponentially over the past five years. This high volume and diversity of data, commonly referred to as 'big data', is an increasing problem under the new Solvency II regulation, which requires insurers to source, process and report on this constantly growing set of data. Insurers need to be able to pull data in near real-time from a wide variety of sources to calculate risk exposure and feed to risk algorithms.

A conventional approach to managing this data is effective to a certain extent but with data increase and need for real time analysis means insurers will face problems with scalability, increase in cost and more time needed to analyse data. For this reason, they should be looking towards solutions that are a hybrid of traditional databases, data warehouses applications and analytics technology, such as Apache Hadoop. They should also look to tackle the long-term storage and management challenges of big data by adopting technologies such as private cloud environments and de-duplication systems.

However, it is not only new data processing technologies insurers need to look towards to successfully implement Solvency II, but also new ways of managing the data itself. In particular, insurers need to ensure they implement adequate data management strategies and frameworks around data quality, data governance, data reporting and architecture.

Only the best data will do

Poor data quality can have a huge bearing on an insurer's ability to be compliant. It can result in the incorrect calculation of solvency capital requirement (SCR) and minimum capital requirement (MCR), two key features stipulated in Pillar 1, which in turn, can result in regulatory failure and adversely impact the business. Data quality processes must ensure data is accurate, consistent, complete, easily available, reliable, auditable and understandable. Most of the work undertaken in ensuring data quality rallies around data cleansing, standardising and normalising the data. One solution is for insurers to investigate is the adoption of an enterprise risk management (ERM) platform that provides a strategic approach to risk management and enables the aggregation and normalisation of data from multiple sources, such as underwriting, investments, and re-insurance. ERM applications include functionality to extract data in a controlled way from multiple source systems, such as policy administration or financial systems, into an integrated risk data warehouse.

Align data to business objectives

The framework of Pillar 2 requires insurers to have an effective data governance process in place that includes clear business objective, data performance measurements and policies that define what data is required. Most important for insurers is the ability to demonstrate the life cycle of the data, in order to prove the validity of their custom models for balancing risks underwritten with investment assets. Poor data governance can affect an insurer's ability to operate efficiently. It is essential to establish a data governance committee as the main decision making body as this will enable continuous improvement of the data quality, which can significantly mitigate business risks. Few insurers presently have a data governance framework or platform in place that is capable of meeting the new requirements. Enterprise governance, risk and compliance (GRC) platforms can help manage key activities related to data governance, such as audit management, compliance management and risk management. Several GRC platforms offer custom build GRC data warehouse and analytic solutions.

Standardise reporting processes

Pillar 3 requires insurers to have a proper mechanism in place for data reporting in the form of quantitative reporting templates (QRT). Eiopa recommends eXtensible Business Reporting Language (XBRL) as the chosen data exchange format in order to standardise communication across the industry. Insurers should also consider adopting e-Business Expert Group for Insurance (eEG7) standards that promote common language for electronic data interchange within the European Industry. eEG7 standards facilitate data exchange between insurers and re-insurers and also help standardise reporting for Solvency II.

Keep a robust architecture at the core

Central to the success of any data management strategy is a robust data architecture. Some of the fundamental principles behind building a strong architecture include having a single version of the truth for the whole enterprise; furthermore creating room to grow so flexibility and agility is achieved in a greater extent, and ensuring data security follows principle of least privilege, to allow access to information and resources for legitimate purpose. In addition, insurers should ensure they are able to reproduce data at any time, maintain their data's history in a consistent way and finally, ensure it is auditable and easily traceable.

What next?

Meeting Solvency II and big data needs will have to form an integral part of insurance companies' business decisions in the future. However, for now the main challenge is to determine how these requirements fit within the existing enterprise landscape. Though initially a new technology infrastructure will require more work and investment from insurers, in the long term there are advantages over conventional approaches to data management, such as the ability to statistically model events that need sample data size close to the entire data population, store and crunch any volume of data in a cost effective way, and scale through distributed processing. Ultimately, the adoption of effective data management solutions will provide tangible business benefits to the insurers, including improving business forecasts, faster decision making and deciding business strategies over the competitors.

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