

# *Bermuda Life Insurance Survey 2012*

*Exploring the  
diversity and  
development of  
the life insurance  
market in Bermuda*





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# Executive summary



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PwC's second survey of the Bermuda life market, while directed at the long-term sector, provides some interesting insights into the wider Bermuda insurance market. The survey, which looks back at 2012 results, dispels the myth perpetrated by other domiciles, that companies are planning a mass exodus from Bermuda as a result of the Bermuda Monetary Authority's (BMA) objective of attaining Solvency II equivalence.

What is clear is that there remains uncertainty about the impact of implementing a Solvency II equivalent regime. The BMA is to be commended in seeking to address this uncertainty through regular, ongoing dialogue with the industry.

The Bermuda life market and Bermuda (re)insurance market in general are seeing positive growth through new entrants and the creation/increased use of insurance-linked securities (ILS) and Special Purpose Insurers (SPI). The increasing use of SPIs in the long-term sector effectively mirrors a trend first seen in the property/casualty sector years ago. The use of such vehicles will undoubtedly continue to increase as investors look for attractive investment returns that cannot currently be found in traditional investment vehicles.

Bermuda's position as a leader in the (re)insurance markets remains strong thanks to the innovation of the market participants, the reasonableness of regulation and the open dialogue between the industry and its regulator.

The number of responses to our second life market survey, coupled with the establishment of Bermuda International Long Term Insurers and Reinsurers (BILTIR) association and the active participation of the long-term sector in the BMA's working groups is indicative of a new level of energy and engagement of Bermuda's long-term sector that has not been seen before.

There has been renewed interest in Bermuda as a domicile for new long-term reinsurers, with a number of new entrants to the life sector in the past two years. The BMA has, through active engagement with the industry, sought to ensure that any new regulations introduced as part of the Solvency II equivalence project don't negatively impact Bermuda's ability to attract and retain life (re)insurance companies.

While there are still a lot of points in the new proposed regulations

to be ironed out, the dialogue between the BMA and industry groups has been healthy and aligned towards a joint vision of a practical, efficient and effective regulatory regime for Bermuda in keeping with the BMA's credibility with the international regulatory community.

The challenges facing the industry now, are broadly similar to the challenges that faced the industry when we last conducted our survey of the market in 2010. What perhaps has come as a surprise to the industry was how prolonged the economic downturn has been, and we see on the next page, just how this has impacted the priorities of the respondents.

It's encouraging that in this period of uncertainty, the Bermuda long-term sector continues to experience growth and interest in its products.

# Doing business in Bermuda

In 2010, more than half of all respondents to PwC's Life Insurance Survey cited Bermuda's proportionate approach to regulation as being an important benefit of doing business in Bermuda. Fifty-four percent of respondents to the 2012 survey agree that this is still the case. The results of the survey seem to indicate that the efforts by other jurisdictions to promote their domiciles, by creating uncertainty around the impact of Solvency II equivalence on Bermuda's renowned practical approach to regulation, have been unsuccessful.

Exactly half of all respondents identified the level of regulatory capital required as being important in their choice of Bermuda as a domicile, which is consistent with the results of the 2010 survey which also had 50% identifying Bermuda's (then) solvency regime as being beneficial to long-term business. As the initial Bermuda Solvency Capital Requirement for long-term (re)insurers (BSCR-LT) had been developed - and subject

to a trial run filing for the Class E category – prior to the survey being conducted, it could be suggested that a significant proportion of the long-term sector didn't consider the new BSCR-LT to be overly onerous, despite the concern over the proposal model's application to variable annuity writers.

Rounding out the top three responses is tax relief and structural efficiencies. A large number of the respondents identified themselves as reinsurers and conduct their business on a funds withheld or modified coinsurance basis, allowing their (usually) US affiliates to gain statutory relief while allowing their investment returns to accumulate in a tax neutral environment.

While there are advantages to doing business in Bermuda, respondents still identified the current environment of regulatory change and Solvency II equivalent regulations as the biggest challenges. This

is to be expected given the pace of change in the long-term sector as well as the limited resources that a large number of life (re)insurers have to respond to those changes. In 2010, the ability to attract and retain key members of staff was considered to be a significant problem for the long-term sector, but that appears to be less of an issue with less than a third of respondents now identifying it as a challenge.

The ability of key employees to reside long-term and the availability and cost of housing, barely registers as a challenge in the 2012 survey results. Both of these were identified by only 4% of respondents in 2012. The first may be a function of the Bermuda Government's pragmatic approach to the subject of term limits as well as the recently created 10-year permit, with long-term residency potential. The cost of housing has been less of a challenge with the economic climate suppressing the demand for housing.

**Figure 1: Top Benefits of doing business in Bermuda**



**Figure 2: Main challenges of doing business in Bermuda**

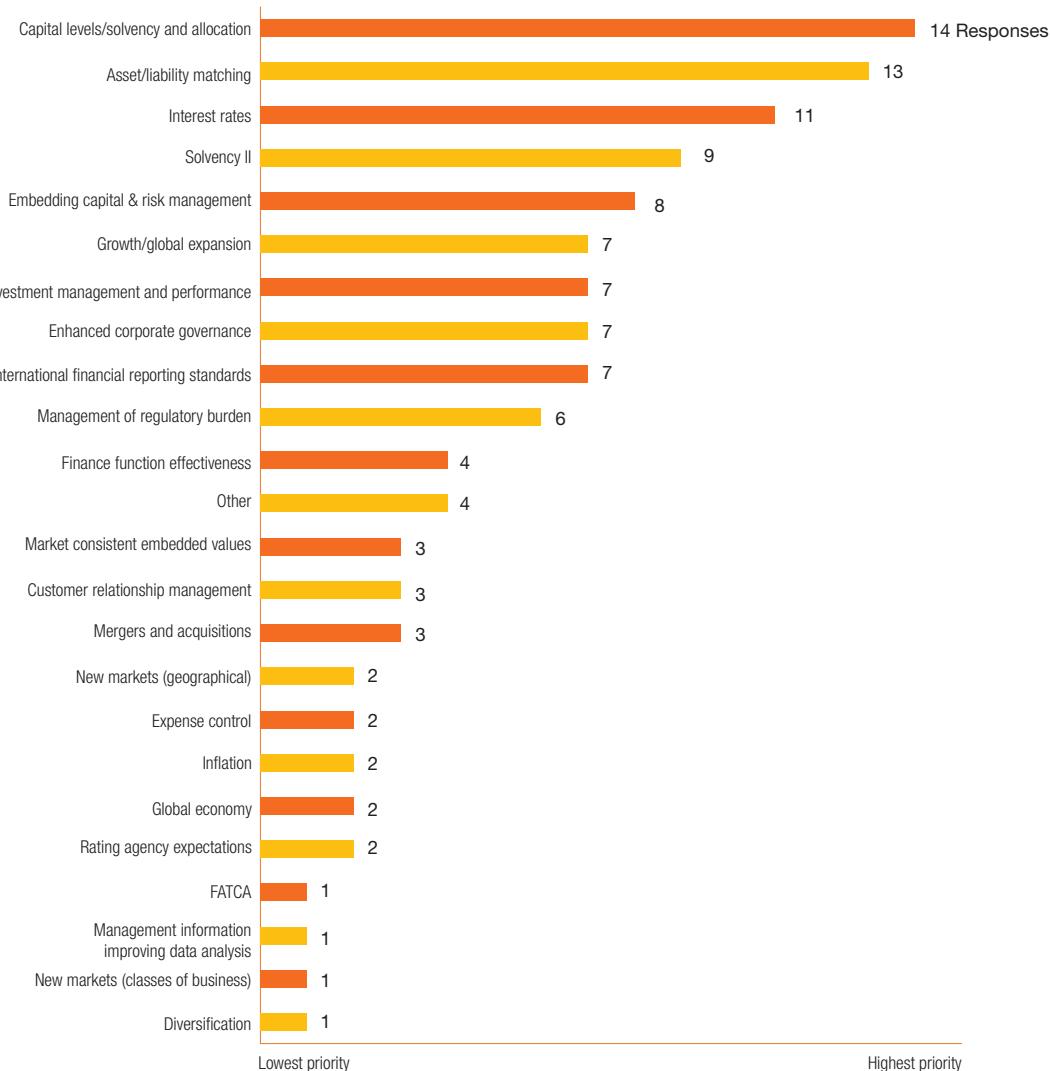


# Top issues for the market

## Capital preservation and deployment continue to drive long-term insurers

The 2010 survey was conducted against a backdrop of low interest rates, concern over liquidity in the investment markets and a soft economic environment. At that time, most companies were making growth their number one priority and with most major financial centres showing some economic growth, there was some cause for optimism. However, that was before the Eurozone countries and the International Monetary Fund (IMF) stepped in with a €110m bailout for Greece in May 2010. Further bailouts followed and the impact of uncertainty in certain Eurozone economies and the subsequent contraction of a number of economies in Europe have dented the growth aspirations of respondents to our 2012 survey, with growth slipping from the top priority down to a tie for sixth (see figure 3).

**Figure 3: Please indicate the top five issues on your company's agenda in 2012.**



# *Top issues for the market*

## *Capital preservation and deployment continue to drive long-term insurers (continued)*

Not surprisingly, respondents are placing much greater emphasis on their capital levels and allocation of capital which has climbed from second place in 2010 to be the top priority among respondents in 2012. Even before the BMA finalised its changes to the solvency regime for the long-term sector, companies had been taking steps to strengthen their balance sheets in response to rating agency concerns and downgrades.

Asset/liability matching leapt from relative obscurity, having not featured at all in the 2010 survey to being the second most popular response in 2012. While asset/liability matching is a significant consideration for all life (re)insurers, the prolonged low-interest rate environment is continuing to impact those companies offering products with guaranteed benefits at rates in excess of those that can be achieved on their invested assets.

That said, the current low interest rate environment poses concerns for all life (re)insurance companies, with reduced investment yields impacting short-term profitability and longer-term product rating decisions. With the economic climate uncertain, companies are conscious that it's increasingly difficult to push rate increases onto their policyholders.

The impact of this is that insurance companies are looking at higher yielding securities which may pose a greater level of capital risk. The increase in interest in asset-backed securities and ILS structures, at least in the long-term sector, can be traced back to the 2008 financial crisis.

Solvency II is increasingly prevalent on the priority list of most life (re)insurance companies, creeping up from eighth spot in 2010's survey to fourth in the 2012 survey. The BMA's focus on attaining Solvency

II equivalence for the commercial property/casualty and long-term sectors and the crystallisation of the impact of equivalence on these sectors has undoubtedly sharpened respondents' awareness of the compliance aspects of a Solvency II equivalent regime.

The delays in implementation of the regime in the EU will present an interesting challenge for the BMA's equivalence efforts, as from a practical stand point, there will continue to be a lack of certainty with respect to what Bermuda will be assessed for equivalence against.

Embedding capital and risk management in the day to day operations continues to feature highly on the list of priorities, with companies still facing challenges in translating corporate level priorities into working practices across all levels of the organisation.

# Survey results

## Understanding the Bermuda market

Our second survey of Bermuda's life insurance market demonstrated the engagement and energy of this particular market, with a significant increase in the number of respondents when compared to the 2010 survey.

In terms of the composition of the respondent companies, the proportion identifying themselves as reinsurers has increased from 57% in the 2010 survey up to 72% in 2012. Twenty-one percent of those responding to the survey conduct business as both

an insurer and reinsurer, with only 8% doing direct insurance business.

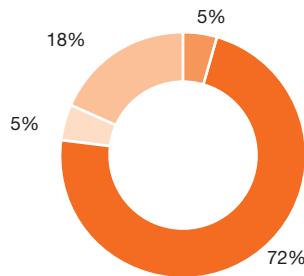
This was the first survey conducted subsequent to the BMA's relicensing process in mid-2011. Figure 4 shows the breakdown by licence of those responding to the survey, with Figure 5 showing the composition of Bermuda's life sector at large.

While the Class A (re)insurers are underrepresented in our survey and the Class E (re)insurers over

represented, the respondents as a whole broadly mirror the industry at large.

Eighty-eight percent of those responding to the survey are subsidiaries of a larger insurance group (i.e. where more than 50% of the group revenue is from insurance activities.) Twelve percent of those responding were subsidiaries of non-insurance groups which include not only captive life companies but also those larger entities established by private equity or venture capital companies in recent years.

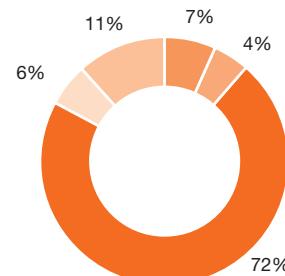
**Figure 4: Class of insurer (respondents)**



**Pie 1:**

- Class B
- Class C
- Class D
- Class E

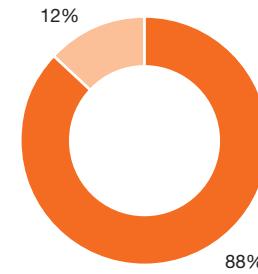
**Figure 5: Class of insurer (Bermuda long-term companies, total)**



**Pie 2:**

- Class A
- Class B
- Class C
- Class D
- Class E

**Figure 6: Business type**



**■ Subsidiary of a group (where 50% of revenue is from Insurance)**  
**■ Subsidiary of a group (where 50% of revenue is not from Insurance)**

# Survey results

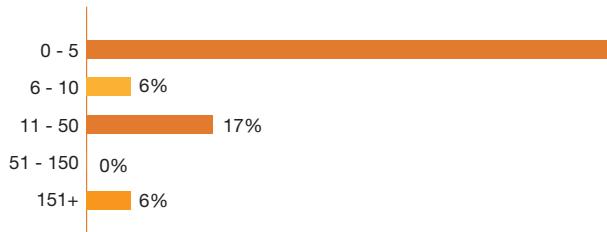
## Understanding the Bermuda market (continued)

We continue to see a wide variety in the sizes of Bermuda's life insurance companies, together with their holding companies, with 71% of respondents having between one and five employees and 6% having in excess of 150 employees. The large number

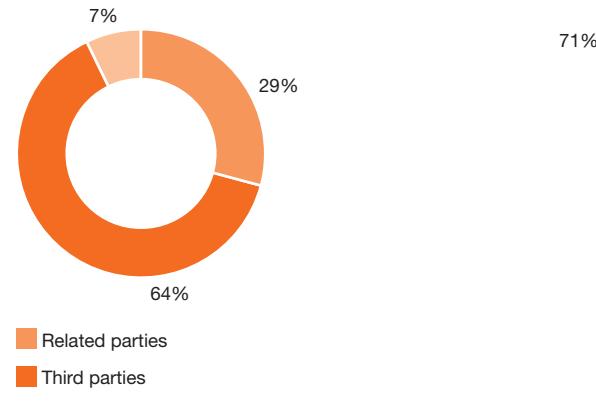
of companies with less than 5 employees is entirely consistent with the high level of outsourcing of key management functions to related parties and the fact that 64% of respondents' business came from affiliates.

There is a wide variety in the size of companies in the Bermuda life insurance market. Of those responding, over a quarter have total assets of less than \$150 million with 18% of respondents having assets in excess of \$10 billion.

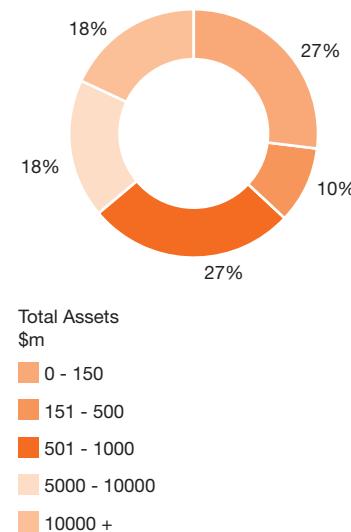
**Figure 7: Number of employees (group) worldwide**



**Figure 8: Please specify the proportion of your life business distributed via:**



**Figure 9: Total asset size (including separate account assets) as at December, 2011**



# Survey results

## Understanding the Bermuda market (continued)

Figure 10 shows the various products offered by those responding to the survey, with 48% of the gross premium volume arising from fixed annuity (re)insurers. This is an increase from 2010 when fixed annuity premium comprised 41% of the total. This increase can be attributed to a number of new fixed annuity entrants, as well as some aggressive growth and acquisition strategies of existing fixed annuity companies. Variable annuity premiums comprise 13% of the gross premium total, which is a significant increase over the 3% in 2010. This increase is driven by more variable annuity (re)insurers responding to the survey as well as new entrants to the Bermuda market since the 2010 survey was conducted. As a result of growth in responses from variable and fixed annuity writers and the premium growth of existing market participants writing variable and fixed annuity products, whole life business as a proportion of respondents' business has shrunk from 46% to 16% between the 2010 and 2012 surveys.

Figure 11 shows the proportion of reserves by each line of business and how that compares to the results of the 2010 survey. Variable annuity reserves as a proportion are largely flat between the two years, but the portion of fixed annuity reserves has increased significantly from 14% to 31% and whole life has fallen as a proportion from 40% to 14%.

“Other” lines of business comprise credit, corporate-owned life insurance, bank-owned life insurance and universal life products and stop loss cover.

Figure 10: Split of gross written premium

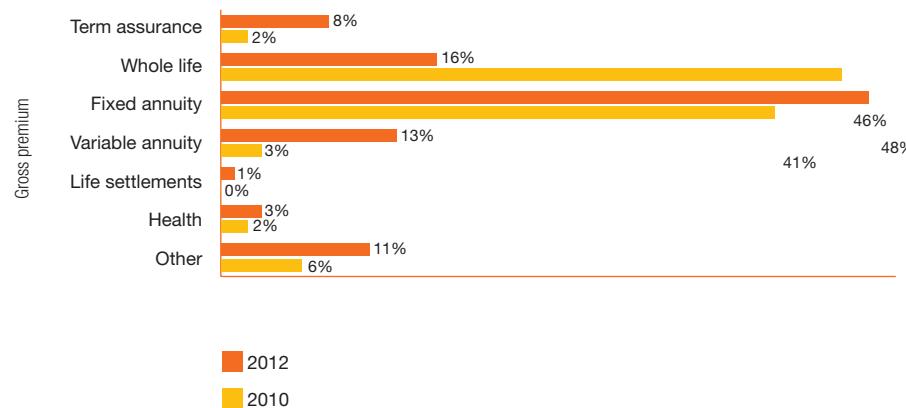
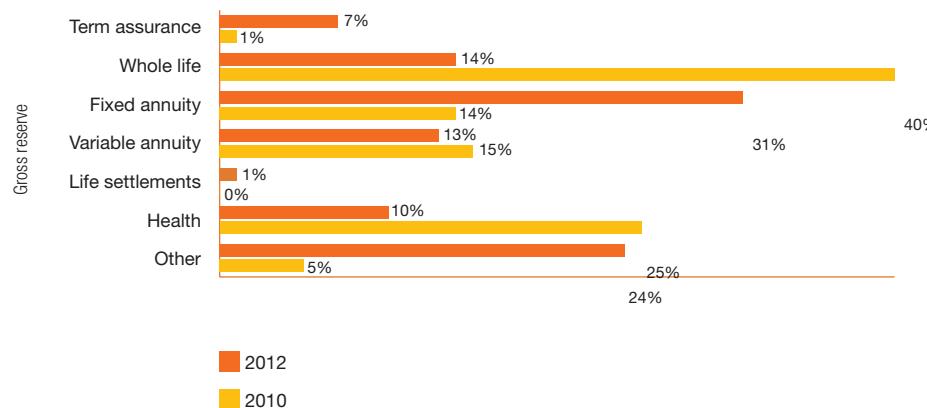


Figure 11: Split of gross reserves



# Survey results

## Understanding the Bermuda market (*continued*)

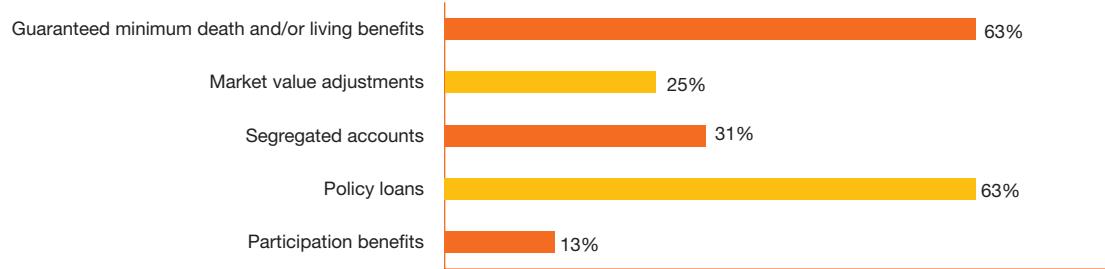
The results of the 2012 survey show a significant number of companies offering guaranteed death and/or living benefits, with almost two-thirds of respondents indicating that they offered such products. Almost two-thirds of respondents also indicated that they offered products which provided policy loans and a further third operated segregated account products. Participation benefits were the least common feature amongst respondents with only 13% offering products with that feature. A number of respondents identified

the use of SPI and ILS in structuring their (re)insurance products. The Bermuda insurance market is seeing an increasing appetite for these structures, following a trend first established in the property/casualty market in the 1990s and the introduction of the BMA's SPI classification in 2009.

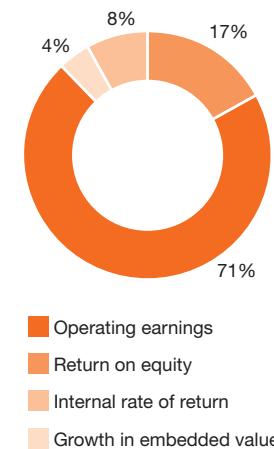
Figure 13 shows that an overwhelming majority of respondents are focused on operating earnings as the primary profitability target. This differs significantly

from the 2010 survey when respondents were much more focused on return on equity as a measure of profitability. This is likely due to the significant decrease in unrealised gains on the investment holdings subsequent to the 2008 financial crisis. With increasing volatility in the fair value of investments, (and thus the shareholders' equity of a company), operating earnings may represent a better measure of a company's performance.

**Figure 12: Product feature**



**Figure 13 Primary profitability target**



# Survey results

## A changing regulatory framework

There continues to be significant activity on the regulatory front, with the industry trying not just to assess the impact of the BSCR-LT, but also to work with the regulator on improvements to that model. Add in the proposed Economic Balance Sheet (EBS) and Eligible Capital (EC) regulations and you have a fairly hectic regulatory agenda.

Of all these requirements, the BSCR-LT is perhaps the most contentious of the proposed requirements with the industry uncomfortable with the capital charges on certain assets and the variable annuity writers unhappy with the risk charges that apply to their guaranteed products. Taking the asset charges first, the proposed capital charge for mortgage-backed securities (MBS) looks particularly onerous at 10%, irrespective of the

rating of the individual security. Given the significance of MBS assets to the long-term sector as a whole, the current risk charge is one area that the industry will want to see amended by the BMA. The BMA has recognised that further work on the BSCR-LT is required in advance of the Enhanced Capital Requirement (ECR) being made effective, which is why they've postponed the implementation of the ECR until year ending December 31, 2013.

With respect to variable annuity products, the model, as it is currently designed doesn't provide credit for hedging strategies and can give a particularly high capital requirement for variable annuity writers that doesn't reflect the inherent risk in their business model. Making them more likely candidates for ultimately

using approved internal capital modes to determine their regulatory capital requirement.

In addition, there is the current anomaly that reinsurance through funds withheld or modified coinsurance (modco) arrangements can attract a lower risk charge than if the underlying assets were held directly by the reinsurer.

The BMA has demonstrated that it is willing to listen to the industry's views on the BSCR-LT calibration and potentially an alternative approach to variable annuities. How they resolve these concerns almost certainly will impact the health of Bermuda's long-term sector.

# Survey results

## A changing regulatory framework (continued)

The last section of the survey addressed how companies measure risk, capital management and capital adequacy – an area of increased focus with the implementation of BSCR-LT for Class E companies and the trial run exercise for Classes C and D in mid-2012.

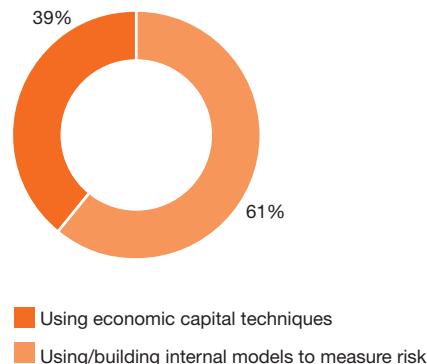
Figure 14 shows that 61% of respondents use internal models to measure risk, compared to 39% who use economic capital techniques. Economic capital reports were named by respondents as some of the risk

management reports that companies produced. Other popular reports included the Minimum Continuing Capital and Surplus Requirement (MCCSR) - the Canadian regulatory capital formula.

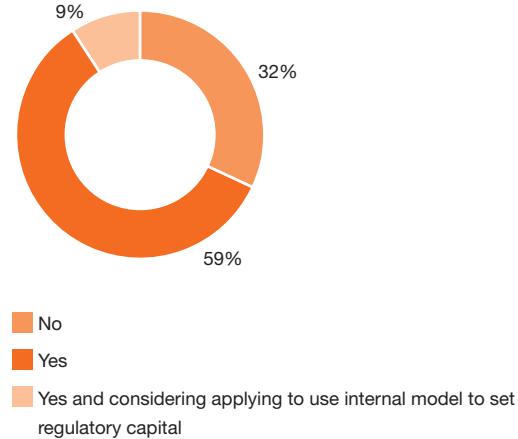
Of those using internal capital models to measure risk, very few (just over 10% of those using internal models), said that they were considering applying to the BMA to use them to set regulatory capital. This result was somewhat of a surprise with the concern expressed

in the 2010 survey about the proposed changes. One possible explanation as to why companies are not considering internal capital model approvals lies in the response to the question whether companies use rating agency capital models for benchmarking capital adequacy, which is considered in more detail on the next page. The cost and effort involved in developing an internal capital model, and obtaining the necessary approval, are undoubtedly factors in companies not considering obtaining the approval.

**Figure 14: How do you measure risk**



**Figure 15: Do you use an internal capital model to manage risk**



# Survey results

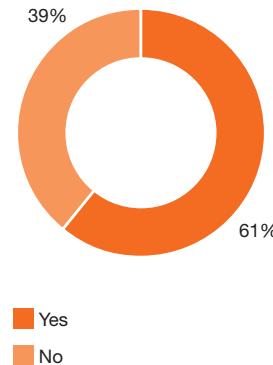
## A changing regulatory framework (continued)

Thirty-nine percent of respondents use rating agency capital levels to benchmark capital adequacy and were asked to provide the capital required under Bermuda's BSCR-LT framework as well as the comparable capital under the rating agency model (figure 16). In all but a small number of instances, the BSCR-LT capital requirement was lower than the rating agency capital. With the BSCR-LT producing smaller capital requirements than the models already being used by companies, there is likely to be less incentive to have internal models approved.

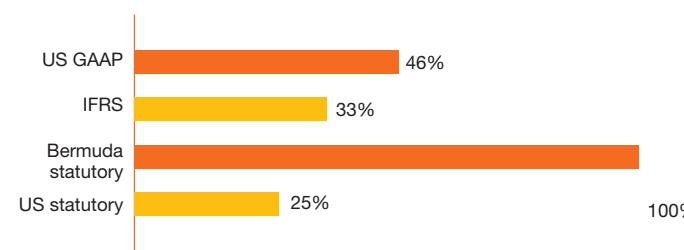
It is likely that the long-term sector may be awaiting the BMA's response to the results of the trial run submissions by the Class C and D (re)insurers before determining whether to go through a time consuming and costly model approval process. The industry, through participation in BMA working groups and through organisations such as BILTIR, have already provided comments on how the BSCR-LT can be recalibrated.

In terms of the financial reporting framework followed, all respondents prepare Bermuda Statutory Financial Statements, with 46% of respondents also preparing US GAAP financial statements (figure 17). IFRS financial statements were used by 33% of respondents. Interestingly, a quarter of the respondents said they prepared US statutory financial statements, reflecting the prominence of US business to the Bermuda life insurance market.

**Figure 16: Use of rating agency capital models as a basis for benchmarking capital adequacy**



**Figure 17: Which financial reporting framework do you follow?**



# Survey results

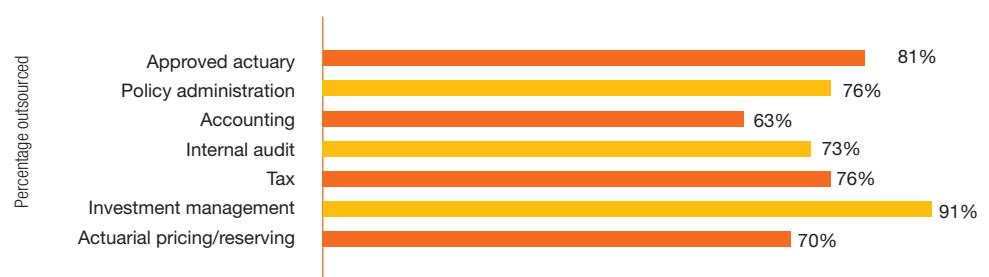
## Outsourcing

Limited personnel resources impact the extent to which Bermuda life insurers outsource certain of their key functions. The level of outsourcing used by life insurers varies depending on the function, but in general, outsourcing is more prevalent in the long-term sector than it is in the property/casualty sector. Figure 18 shows the proportion of respondents which outsource any particular function.

The most common outsourced functions amongst respondents are the investment management (91%) and approved actuary (81%) functions. Looking into the investment management function in a little more detail shows that almost a third of those outsourcing their investment management function are doing so to related entities within their group rather than to third parties.

The accounting function is the least outsourced function with 63% of respondents utilising third parties. Though that is still a high proportion of respondents, it's broadly in line with the proportion of companies in the Class C category who re-insure business written by affiliates. The implication is that business assumed from affiliates generally requires much less "on the ground" support from employees of the company and that the accounting can be outsourced to some of the Bermuda-based management companies who specialise in providing services to the long-term sector.

**Figure 18: Outsourced functions, including those outsourced to other companies within the group**



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