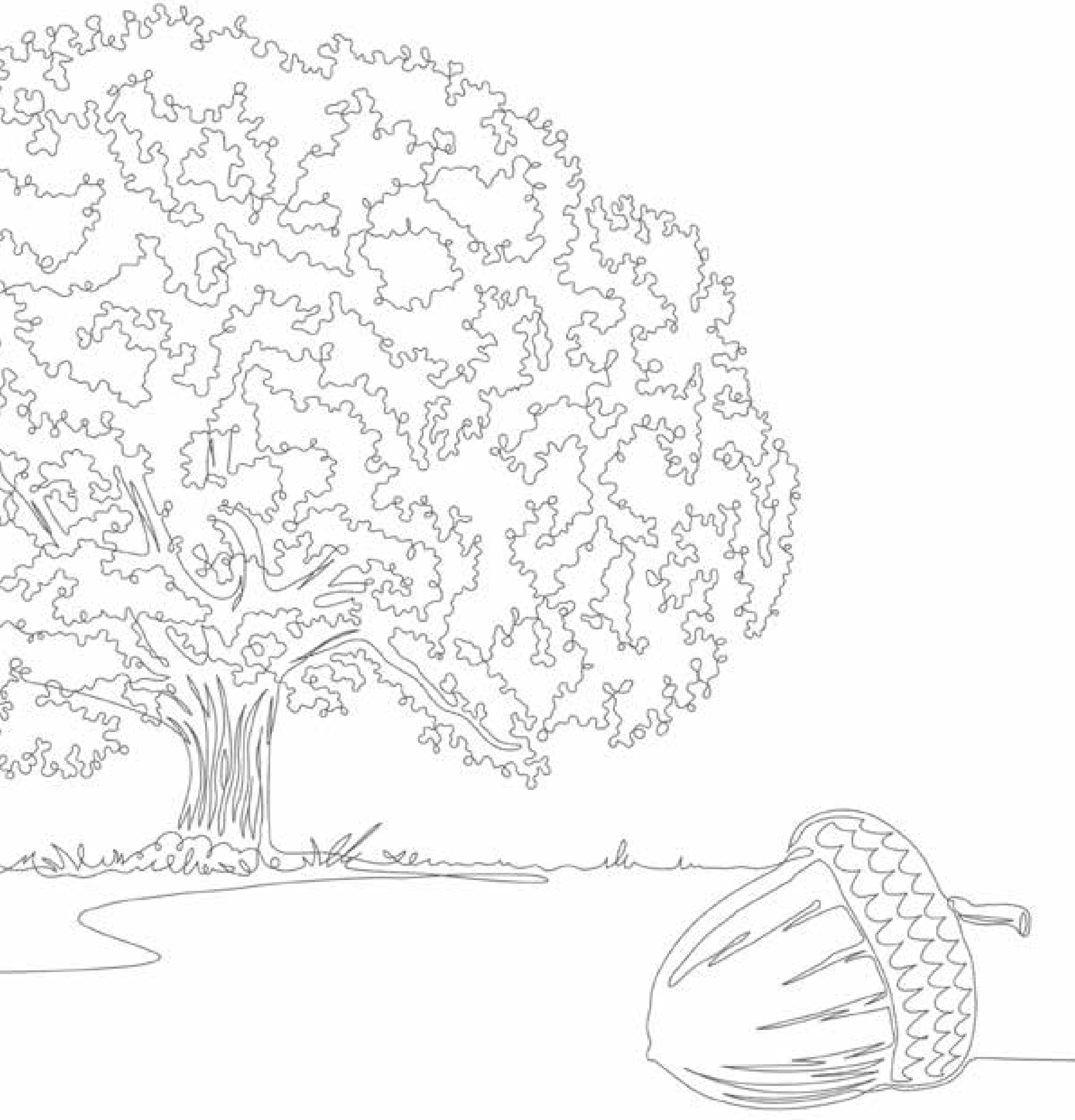
Sustaining growth



Contents

Beazley plc is the ultimate holding company for the Beazley group, a global specialist risk insurance and reinsurance business operating through: its managed syndicates at Lloyd's in the UK; Beazley Insurance Company, Inc., a US admitted carrier in the US; and Beazley Insurance dac, a European insurance company, in Ireland.

Summary

The EU-wide regulatory regime for insurance and reinsurance companies, known as Solvency II, came into force with effect from 1 January 2016, requiring new reporting and public disclosure of information. This document is the third version of the Solvency and Financial Condition Report (SFCR) that is required to be published annually by Beazley plc (Beazley or the group).

The report covers the business and performance of the company, its system of governance, risk profile, valuation for solvency purposes and capital management and has been approved by the board of directors.

Beazley delivered strong premium growth in 2018, with gross premiums written rising 12% to $2,615.3m (2017: $2,343.8m). Profit before income tax declined by 55% to $76.4m (2017: $168.0m) due to a decline in investment returns. Our combined ratio stood at 98% (2017: 99%) and was affected by severe natural catastrophe claims again in 2018.

Beazley Insurance dac (BIdac) continues to act as an intra-group reinsurer and provides capital to support the underwriting activities of its sister company, Beazley Underwriting Limited (BUL). BUL is a Lloyd's of London corporate member. It participates in the Lloyd's insurance market on a limited liability basis through syndicates 2623, 3622 and 3623. BIdac has an aggregate excess of loss reinsurance agreement with BUL. During 2018, the terms of this aggregate excess of loss reinsurance agreement with BUL changed following negotiation between both companies. As part of the negotiation of the contract covering the 2019 underwriting year, a profit retention of $4m was added to the contract and the excess point was increased from £2m to $4m. Over these amounts, BUL cedes 75% of the final declared result of its participation in syndicates 2623 and 3623. In the event that the declared result is a loss, the reinsurance is limited so the loss cannot exceed 75% of the Funds At Lloyd's (FAL) posted to support the underwritings of syndicates 2623 and 3623. As part of the negotiation of the 2019 contract, the open contracts in respect of the 2016, 2017 and 2018 underwriting years were endorsed so as to also include the same terms.

The main political change that the group continued to navigate in 2018 was Brexit. Where possible, the group is providing an alternative platform for syndicate business under threat from Brexit which has required BIdac to make a number of applications to the Central Bank of Ireland (CBI) to change its authorisations. In addition, BIdac has applied to the Prudential Regulation Authority (PRA) for authorisation of its UK branch as a third country branch. Beazley Solutions Limited (BSOL), a company incorporated and resident in the UK, currently undertakes delegated underwriting for the company. In order to mitigate the effect of a no-deal Brexit, Beazley Solutions International Limited (BSIL), an insurance intermediary domiciled in Ireland, is currently being established to provide a similar service, including underwriting of EEA risks via the Lloyd's Brussels subsidiary, to BIdac.

The group continues to be committed to the highest standards of corporate governance and the group's robust system of governance has been designed to establish, implement and maintain effective controls, internal reporting and communication of information across all levels within the group. Beazley believes these to be fundamental to the long term success of the company.

The Beazley plc Solvency II balance sheet comprises the consolidated assets and liabilities of the insurance undertakings and ancillary service companies included in the group. The Solvency II technical provisions of BIdac are consolidated with those of BICI and the group's other insurance undertakings. In 2018, BICI's 75% quota share reinsurance arrangements with syndicate 3623 for its specialty lines business was replaced with an excess of loss/stop loss treaty. As a result BICI now retains significantly more insurance risk than in previous years.

The Solvency II technical provisions of BIdac have been calculated in line with a strict application of the Solvency II regulation that considers the contract cash flows, particularly in relation to the aggregate excess of loss reinsurance agreement with BUL with effect from the 2017 year end. The cash flows represent the premium (provided the declared result of BUL is a profit) or claim (in the case of a loss) paid in respect of BUL's declared result and the fees for providing capital to support BUL's reinsured underwriting at Lloyd's.

Beazley holds a level of capital over and above its regulatory requirements. As at 31 December 2018, total own funds eligible to meet the group Solvency Capital Requirement (SCR) were $1,925.9m (2017: $1,992.8m), compared to the group SCR of $954.4m (2017: $892.6m) giving a solvency ratio of 202% (2017: 223%). The amount of surplus capital held is considered on an ongoing basis in light of the current regulatory framework and opportunities for organic or acquisitive growth and a desire to maximise returns for investors.

In addition to monitoring the level of capital compared to the group SCR, the Beazley plc board also considers the capital resources required by the group to underwrite at Lloyd's. At 31 December 2018, Beazley had surplus capital of 26% of the Lloyd's Economic Capital Requirement (ECR). Following payment of the group's second interim dividend of 7.8p per share, this surplus reduces to 23% compared to the current target range of 15% to 25% of ECR.

A. Business and performance

All financial data in this section is presented on an International Financial Reporting Standards (IFRS) basis, consistent with the financial statements of Beazley plc unless otherwise stated.

A.1 Business

Beazley plc (Beazley or the group), a company incorporated in England and Wales and resident for tax purposes in the United Kingdom, is the ultimate parent and the ultimate controlling party within the group.

The address of the registered office is:
Plantation Place South
60 Great Tower Street
London
EC3R 5AD
United Kingdom

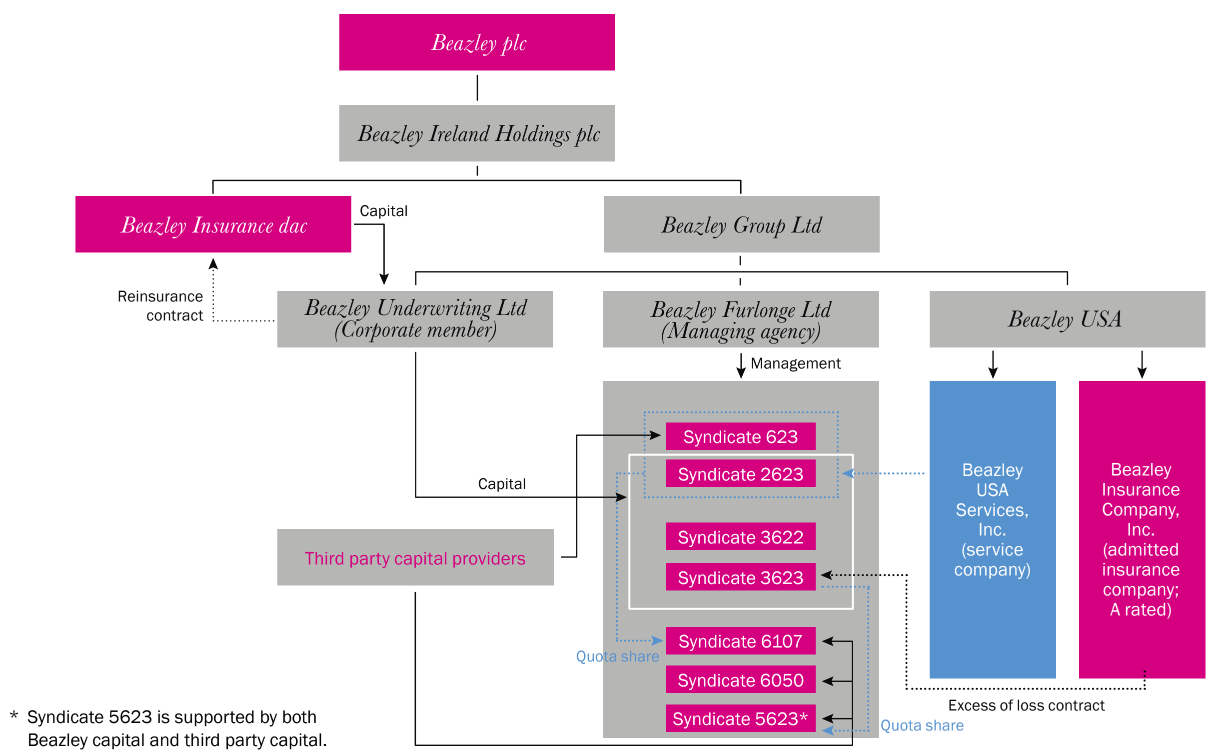
The Beazley Insurance dac (BIdac) and the group supervisor of Beazley plc is the Central Bank of Ireland (CBI), and can be contacted at:
Central Bank of Ireland
PO Box 559
New Wapping Street,
North Wall Quay, Dublin 1
Ireland

The independent auditor of the group is:
KPMG LLP
15 Canada Square
London
E14 5GL
United Kingdom

As at 13 May 2019, the board had been notified of, or was otherwise aware of, the following shareholdings of 3% or more of the company's issued ordinary share capital:

Name	Number of ordinary shares	% of overall holding
Invesco	41,020,021	7.7
Fidelity Management & Research	36,800,137	6.9
MFS Investment Management	33,981,696	6.4
SKAGEN Fondene	21,756,786	4.1
NBIM	21,399,042	4.0
BlackRock	20,351,639	3.8
Vanguard Group	17,988,436	3.4

The group operates across Lloyd's, Europe, Asia, Canada and the US through a variety of legal entities and structures.



* Syndicate 5623 is supported by both Beazley capital and third party capital.

A.1 Business *continued*

The main entities within the legal entity structure are as follows:

- Beazley plc – group holding company and investment vehicle, quoted on the London Stock Exchange;
- Beazley Ireland Holdings plc – intermediate holding company which holds £75m sterling denominated notes;
- Beazley Underwriting Limited (BUL) – corporate member at Lloyd's writing business through syndicates 2623, 3622 and 3623;
- Beazley Furlonge Limited (BFL) – managing agency for the seven syndicates managed by the group (623, 2623, 3622, 3623, 6107, 6050 and 5623);
- Beazley Insurance dac (BIdac) – insurance company that accepts non-life reinsurance premiums ceded by the corporate member, BUL and writes direct business in Europe;
- Syndicate 2623 – corporate body regulated by Lloyd's and the PRA through which the group underwrites its general insurance business excluding accident & life. Business is written in parallel with syndicate 623;
- Syndicate 623 – corporate body regulated by Lloyd's and the PRA which has its capital supplied by third-party names;
- Syndicate 6107 – special purpose syndicate writing reinsurance business, and from 2017 cyber, on behalf of third-party names;
- Syndicate 3622 – corporate body regulated by Lloyd's and the PRA through which the group underwrites its life insurance and reinsurance business;
- Syndicate 3623 – corporate body regulated by Lloyd's and the PRA through which the group underwrites its personal accident, BICI reinsurance business and from 2018 facilities business;
- Syndicate 6050 – special purpose syndicate which has its capital provided by third-party names and provided reinsurance to syndicates 623 and 2623 on the 2015, 2016 and 2017 years of account;
- Syndicate 5623 – special purpose syndicate writing facilities business ceded from syndicate 3623;
- Beazley Insurance Company, Inc. (BICI) – insurance company regulated in the US. Licensed to write insurance business in all 50 states; and
- Beazley USA Services, Inc. (BUSA) – managing general agent based in Farmington, Connecticut. Underwrites business on behalf of Beazley syndicates and BICI.

The following is a list of all the subsidiaries in the group as at 31 December 2018:

	Country of incorporation	Ownership interest	Nature of business	Functional currency	Beazley plc direct investment in subsidiary ($m)
Beazley Ireland Holdings plc	Jersey	100%	Intermediate holding company	USD	724.6
Beazley Group Limited	England	100%	Intermediate holding company	USD	
Beazley Furlonge Holdings Limited	England	100%	Intermediate holding company	USD	
Beazley Furlonge Limited	England	100%	Lloyd's managing agent	GBP	
Beazley Investments Limited	England	100%	Investment company	USD	
Beazley Underwriting Limited	England	100%	Lloyd's corporate member	USD	
Beazley Management Limited	England	100%	Intermediate management company	GBP	
Beazley Staff Underwriting Limited	England	100%	Lloyd's corporate member	USD	
Beazley Solutions Limited	England	100%	Insurance services	GBP	
Beazley Underwriting Services Limited	England	100%	Insurance services	GBP	
Beazley Corporate Member (No.2) Limited	England	100%	Lloyd's corporate member	USD	
Beazley Corporate Member (No.3) Limited	England	100%	Lloyd's corporate member	USD	
Beazley Corporate Member (No.6) Limited	England	100%	Lloyd's corporate member	USD	
Beazley Leviathan Limited	England	100%	Insurance services	GBP	
Beazley Canada Limited	Canada	100%	Insurance services	CAD	
Beazley Insurance dac	Ireland	100%	Insurance and reinsurance company	USD	
Beazley Solutions International Limited	Ireland	100%	Insurance services	EUR	
Beazley Underwriting Pty Ltd	Australia	100%	Insurance services	AUD	
Beazley USA Services, Inc.	USA	100%	Insurance services	USD	
Beazley Holdings, Inc.	USA	100%	Intermediate	USD	
Beazley Group (USA) General Partnership	USA	100%	General partnership	USD	
Beazley Insurance Company, Inc.	USA	100%	Insurance services	USD	
Beazley America Insurance Company, inc	USA	100%	Insurance services	USD	
Lodestone Securities LLC	USA	100%	Consultancy services	USD	
Beazley Limited	Hong Kong	100%	Insurance services	HKD	
Beazley Pte. Limited	Singapore	100%	Insurance services	SGD	

A. Business and performance *continued*

A.1 Business *continued*

In 2018, the group's business consisted of five operating divisions. The following table provides a breakdown of gross premiums written by division, and also provides a geographical split based on placement of risk.

2018	UK (Lloyd's)	US (non-Lloyd's)	Total
Marine	11%	–	11%
Political, accident & contingency	8%	1%	9%
Property	16%	–	16%
Reinsurance	8%	–	8%
Specialty lines	40%	16%	56%
Total	**83%**	**17%**	**100%**

2017	UK (Lloyd's)	US (non-Lloyd's)	Total
Marine	11%	–	11%
Political, accident & contingency	9%	–	9%
Property	15%	–	15%
Reinsurance	9%	–	9%
Specialty lines	44%	12%	56%
Total	**88%**	**12%**	**100%**

Beazley delivered strong premium growth in 2018, with gross premiums written rising 12% to $2,615.3m (2017: $2,343.8m). Profit before income tax declined by 55% to $76.4m (2017: $168.0m) due to a decline in investment returns. Our combined ratio stood at 98% (2017: 99%) and was affected by severe natural catastrophe claims again in 2018.

In November 2018, we estimated the combined cost of two US hurricanes, Florence and Michael, and two Japanese typhoons, Jebi and Trami, at $105m net of reinsurance and reinstatement premiums. As the year drew to a close, we sustained an additional $40m of claims net of reinsurance for the wildfires that blazed with unprecedented ferocity in northern California. The previous year's exceptionally heavy catastrophe losses had already depleted our catastrophe reserves with the outcome that prior year reserve releases for the group as a whole in 2018 fell to $115.0m (2017: $203.9m).

We are in business to pay claims and the long term value of the company depends on the claims service we provide, which supports strong, enduring relationships with our clients and brokers. When insurers talk of catastrophe claims, they usually mean claims triggered by events such as storms, earthquakes or wildfires. However for our clients any loss may potentially rank as a catastrophe. Beazley's claims teams worked tirelessly in 2018 to provide the swift and supportive claims service expected by all of our clients.

Growth in insurance can be opportunistic – driven by firming premium rates – but it can also be strategic, based on an insurer's position in growth markets. Over time, the latter is more important. Beazley is well positioned in a wide array of growth markets. The cyber insurance market, showing double digit annual growth, is perhaps the most widely discussed. Nevertheless demand is also very strong for the specialty liability products we offer to healthcare providers, technology companies, and property developers confronting environmental liability risks.

Our position in markets such as these has underpinned the strong growth of our US operations in recent years, which continued in 2018. We saw locally underwritten US premiums grow 20% during the year to $1,051.2m (2017: $878.2m), nearly 90% of which is written on behalf of the group (the balance is attributable to the external investors supporting Beazley syndicate 623). Our US business has grown at an average rate of 18% for the past five years and we foresee further double digit growth during 2019.

Organisational Structure

The group has operations in Europe, the US, Canada and Asia. Beazley plc's country of domicile is the UK.

A.2 Underwriting performance

Beazley is pleased to have achieved an underwriting profit in 2018, delivering a combined ratio of 98% (2017: 99%) against a backdrop of an active catastrophe environment. Gross premiums written grew by 12% to $2,615.3m (2017: $2,343.8m).

2018	Marine $m	Political, accident & contingency $m	Property $m	Reinsurance $m	Specialty lines $m	Total $m
Segment results						
Gross premiums written	284.8	238.7	415.4	207.4	1,469.0	2,615.3
Net premiums written	255.0	212.7	360.2	137.3	1,283.3	2,248.5
Net earned premiums	249.5	194.3	344.1	139.5	1,157.2	2,084.6
Net investment income	3.3	2.3	3.1	1.8	30.6	41.1
Other income	2.9	3.8	6.4	1.7	18.9	33.7
Revenue	**255.7**	**200.4**	**353.6**	**143.0**	**1,206.7**	**2,159.4**
Net insurance claims	134.0	90.2	289.4	97.7	616.5	1,227.8
Expenses for the acquisition of insurance contracts	74.5	63.3	103.5	33.2	287.4	561.9
Administrative expenses	25.1	21.5	38.9	13.0	152.2	250.7
Foreign exchange loss	1.6	1.2	2.2	0.9	7.3	13.2
Expenses	**235.2**	**176.2**	**434.0**	**144.8**	**1,063.4**	**2,053.6**
Impairment of associates	–	–	–	–	(7.0)	(7.0)
Segment result	**20.5**	**24.2**	**(80.4)**	**(1.8)**	**136.3**	**98.8**
Finance costs	–	–	–	–	–	(22.4)
Profit before income tax	–	–	–	–	–	**76.4**
Income tax expense	–	–	–	–	–	(8.2)
Profit for the year attributable to equity shareholders	–	–	–	–	–	**68.2**
Claims ratio	54%	46%	84%	70%	53%	59%
Expense ratio	40%	44%	41%	33%	38%	39%
Combined ratio	94%	90%	125%	103%	91%	98%

A. Business and performance *continued*

A.2 Underwriting performance *continued*

2017	Marine $m	Political, accident & contingency $m	Property $m	Reinsurance $m	Specialty lines $m	Total $m
Segment results						
Gross premiums written	267.6	214.3	362.9	206.8	1,292.2	2,343.8
Net premiums written	233.2	190.8	300.0	134.6	1,120.2	1,978.8
Net earned premiums	227.9	188.7	293.8	136.9	1,022.1	1,869.4
Net investment income	12.7	6.7	14.1	9.4	95.4	138.3
Other income	3.2	3.6	7.3	3.7	17.7	35.5
Revenue	**243.8**	**199.0**	**315.2**	**150.0**	**1,135.2**	**2,043.2**
Net insurance claims	124.7	96.2	251.6	97.5	505.7	1,075.7
Expenses for the acquisition of insurance contracts	68.9	67.2	95.3	32.9	255.4	519.7
Administrative expenses	30.5	27.8	36.1	15.6	144.7	254.7
Foreign exchange loss	0.4	0.3	0.5	0.2	1.7	3.1
Expenses	**224.5**	**191.5**	**383.5**	**146.2**	**907.5**	**1,853.2**
Share of loss of associates	–	0.4	–	–	(0.3)	0.1
Segment result	**19.3**	**7.9**	**(68.3)**	**3.8**	**227.4**	**190.1**
Finance costs	–	–	–	–	–	(22.1)
Profit before income tax	–	–	–	–	–	**168.0**
Income tax expense	–	–	–	–	–	(38.0)
Profit for the year attributable to equity shareholders	–	–	–	–	–	**130.0**
Claims ratio	55%	51%	86%	71%	50%	58%
Expense ratio	43%	50%	44%	36%	39%	41%
Combined ratio	98%	101%	130%	107%	89%	99%

A.2 Underwriting performance *continued*

Divisional performance

With 2018 being another year of significant natural catastrophes we were pleased that we could record an underwriting profit. Maintaining a diverse portfolio once again showed its value, as the group as a whole was able to compensate for the claims experienced in our catastrophe exposed lines of business.

As is inevitably the case with natural catastrophe claims, our reinsurance and property teams were hardest hit with the former registering claims of $97.7m (2017: $97.5m). The claims were in the reinsurance division's expectation for such events, with the division recording a combined ratio of 103% (2017: 107%).

We have maintained our philosophy of setting prudent claims reserves initially. In aggregate, the current cost of the 2017 events is within our original estimates albeit there have been some variances at a divisional level.

Our property division saw overall premiums increase 14% to $415.4m for 2018 (2017: $362.9m) driven by the double digit rate increase of 10%. However, the active claims market in 2018, with claims arising from the 2018 natural catastrophes as well as a higher level of attritional claims from prior underwriting years, meant that the property division recorded an overall loss of $80.4m for 2018 (2017: loss of $68.3m). The division also decided to cease underwriting construction and engineering business during the year since it was concluded, following close scrutiny of the plans for this product over a number of years, that it would be unlikely to satisfy our cross-cycle profitability requirements in the foreseeable future. This business accounted for approximately 10% of the division's premiums in 2017.

Our specialty lines division was the largest contributor to the group's result achieving a combined ratio of 91% (2017: 89%). The division continued to see strong growth with premiums increasing 14% to $1,469.0m (2017: $1,292.2m) helped by rate increases of 1% (2017: flat). Our US platform continues to be the core driver of the division's premiums written, contributing $760.7m in 2018 (2017: $632.9m). Our specialty lines international business also began to show promising developments as we saw steady growth in the first full year of underwriting. It is expected that our non-US specialty lines business will become more prominent as we move through 2019.

Our political, accident & contingency division achieved strong top line growth with an increase of 11% to $238.7m (2017: $214.3m). We were pleased in particular with the development of our US accident and health business which is focused on the growing supplemental health cover market. It was also pleasing to see all of the lines of business performing well in 2018, generating an improved combined ratio for the division of 90% (2017: 101%).

Our marine division started to benefit from an improved rating environment, most prominent in areas such as aviation and cargo, which allowed the division as a whole to achieve premium growth of 6% to $284.8m (2017: $267.6m) and an improved combined ratio for 2018 of 94% (2017: 98%). We expanded our presence in the US during 2018, with the division starting to write marine business out of the Houston office.

A. Business and performance *continued*

A.2 Underwriting performance *continued*

The table below shows the 2018 segmental analysis in the group IFRS accounts, which follows the five divisions through which the group is managed, re-classified into Solvency II lines of business.

Data in the table below is presented using Solvency II lines of business.

2018	Income protection $m	Marine, aviation and transport $m	Fire and other damage to property $m	General liability $m	Credit and suretyship $m	Miscellaneous financial loss $m	Health $m	Casualty $m	Property $m	Other life insurance $m	Life reinsurance $m	Total $m
Net premiums written	49.0	255.9	395.1	1,253.8	39.7	44.0	27.0	27.4	135.7	13.8	7.1	**2,248.5**
Net earned premiums	38.2	250.0	375.4	1,135.4	38.7	41.5	29.0	20.8	134.1	14.8	6.7	**2,084.6**
Net claims incurred	(23.3)	(132.3)	(289.7)	(593.2)	(16.9)	(22.0)	(14.6)	(4.4)	(95.4)	(3.8)	(7.8)	**(1,203.4)**
Expenses incurred	(23.0)	(103.0)	(160.8)	(449.6)	(15.7)	(16.8)	(10.1)	(12.8)	(45.3)	(5.5)	(2.1)	**(844.7)**
Underwriting performance	(8.1)	14.7	(75.1)	92.6	6.1	2.7	4.3	3.6	(6.6)	5.5	(3.2)	**36.5**

2017	Income protection $m	Marine, aviation and transport $m	Fire and other damage to property $m	General liability $m	Credit and suretyship $m	Miscellaneous financial loss $m	Health $m	Casualty $m	Property $m	Other life insurance $m	Life reinsurance $m	Total $m
Net premiums written	41.5	233.1	324.8	1,094.0	48.3	37.0	29.9	24.7	123.2	17.9	4.4	**1,978.8**
Net earned premiums	48.8	227.9	320.3	999.8	37.4	36.4	28.5	24.7	125.4	16.4	3.8	**1,869.4**
Net claims incurred	(28.7)	(122.8)	(245.8)	(490.6)	(37.8)	(15.2)	(14.7)	2.6	(91.1)	(9.4)	(2.0)	**(1,055.5)**
Expenses incurred	(34.7)	(101.9)	(147.1)	(408.7)	(18.4)	(16.8)	(10.4)	(11.8)	(46.2)	(5.4)	(1.2)	**(802.6)**
Underwriting performance	**(14.6)**	**3.2**	**(72.6)**	**100.5**	**(18.8)**	**4.4**	**3.4**	**15.5**	**(11.9)**	**1.6**	**0.6**	**11.3**

Geographical breakdown

The below table provides an analysis of the geographical breakdown of gross written premiums.

Data in the table below is presented using Solvency II criteria for activity by geographic location.

	2018 $m	2018 %
United Kingdom	1,459.8	56%
United States of America	1048.7	40%
Australia	5.3	1%
Other	101.5	3%
Total	**2,615.3**	**100%**

	2017 $m	2017 %
United Kingdom	1,175.2	50%
United States of America	954.4	41%
Australia	22.4	1%
Other	191.8	8%
Total	**2,343.8**	**100%**

A.3 Investment performance

Summary of return of income

	2018 %	2018 $m	2017 %	2017 $m
Investment assets	0.8	37.7	3.1	135.7
Cash	0.9	3.4	0.5	2.5
Total	**0.8**	**41.1**	**2.9**	**138.2**

Income in the table above includes interest received on cash held on the balance sheet.

The analysis below considers returns achieved on investment assets alone.

Summary of investment return

	2018 %	2018 $m	2017 %	2017 $m
Investment derived from financial assets	–	45.5	–	143.6
Investments expenses and charges	–	(7.8)	–	(7.9)
Total	**0.8**	**37.7**	**3.1**	**135.7**

Income and expenses by asset class ($m)

			Capital growth			
2018	Fixed interest	Equity	Hedge funds	Illiquid credit	Total	Total
Income	50.2	(19.8)	2.8	12.3	(4.7)	45.5
Expenses	(5.2)	(0.3)	(1.5)	(0.8)	(2.6)	(7.8)
Total	45.0	(20.1)	1.3	11.5	(7.3)	**37.7**

			Capital growth			
2017	Fixed interest	Equity	Hedge funds	Illiquid credit	Total	Total
Income	71.0	34.5	20.1	18.0	72.6	143.6
Expenses	(5.3)	(0.3)	(1.6)	(0.7)	(2.6)	(7.9)
Total	65.7	34.2	18.5	17.3	70.0	**135.7**

Expense allocations by asset class are estimates.

2018 investment return vs benchmark (%)

			Capital growth			
2018	Fixed interest	Equity	Hedge funds	Illiquid credit	Total	Total
Investment assets	1.3	(16.4)	0.3	7.4	(1.2)	0.8
Benchmark	1.3	(7.2)	8.1	10.6	5.5	2.0
Cash	–	–	–	–	–	0.9
Total						**0.8**

Investment assets produced a total return of 0.8% in 2018 against a return of 3.1% in 2017. The absolute level of return in 2018 was below initial expectations, reflecting difficult market conditions, including rising bond yields, generating capital losses on these investments, and falling equity markets. Against this background, the investment outcome was good, helped by our investment actions, which included maintaining asset duration below its benchmark level and reducing equity exposure throughout the year.

There were no gains and losses recognised directly in equity in 2018 or 2017. There is no direct exposure to investments in securitisations and indirect exposure via co-mingled funds is deemed to be de minimis. No significant change to securitisation exposure is planned during 2019.

A.4 Performance from other activities

Other income

Other income is analysed as follows in the financial statements.

	2018 $m	2017 $m
Commissions received from Beazley service companies	20.7	22.7
Profit commissions from syndicates 623/6107	7.5	8.0
Agency fees from 623	2.5	2.2
Other income	3.0	2.6
	33.7	**35.5**

As at 31 December 2018 there was no accrued profit commission at risk of being reversed if there were to be an adverse impact on syndicate 623's profit (31 December 2017: $0.7m). We have not experienced any deterioration to profit commissions recognised previously.

Lease arrangements

The group leases land and buildings under non-cancellable operating lease agreements. The future minimum lease payments under non-cancellable operating leases are as follows:

	2018 $m	2017 $m
No later than one year	9.8	10.3
Later than one year and no later than five years	16.6	26.9
Later than five years	6.5	8.5
	32.9	**45.7**

A.5 Any other information

There is no other material information to report.

B. System of governance

B.1 General information on the system of governance

Governance framework

Beazley plc (Beazley or the group) operates through the main board, the managing agent board, the board of the Irish insurance company (that accepts non-life reinsurance premiums ceded by the corporate member, Beazley Underwriting Limited), the board of the US admitted insurance company and their board committees. The group has established properly constituted audit and risk, remuneration, nomination and disclosure committees of the board. There are terms of reference for each committee and details of their main responsibilities and activities in 2018 are set out below. The board has also appointed an executive committee that is chaired by Andrew Horton and acts under delegated authority from the board. The executive committee meets on a monthly basis and is responsible for managing all activities of the operational group. The governance framework of the main board and its committees is shown in the diagram below.

Shareholders

Chair
David Roberts

Key responsibilities
The chair leads the board, managing constructive dialogue between executive and non-executive directors. He is responsible for ensuring that the board discharges its duties effectively.

Company secretary
Christine Oldridge

Key responsibilities
The company secretary's responsibilities include ensuring good information flows within the board and its committees and between senior management and non-executive directors, as well as advising the board through the chair on all governance matters.

The board

Key responsibilities
Leadership, strategic aims, risks, values and standards.

Chair
David Roberts[1]

Members
George Blunden[4]
Martin Bride
Adrian Cox
Angela Crawford-Ingle
Nicola Hodson[2]
Andrew Horton
Christine LaSala
Sir Andrew Likierman
John Reizenstein[3]
John Sauerland
Robert Stuchbery
Catherine Woods

Chief executive
Andrew Horton

Key responsibilities
The chief executive is responsible for the implementation and delivery of the strategy agreed by the board and the day to day management of the business.

Audit and risk committee

Chair
Angela Crawford-Ingle

Members
George Blunden
Christine LaSala
Nicola Hodson[2]
Robert Stuchbery
John Reizenstein[3]
Catherine Woods

Key responsibilities
The audit and risk committee assists the board of directors in fulfilling its oversight responsibilities for the financial reporting process, the system of internal control, the audit process and the company's process for monitoring compliance with laws and regulations and the Beazley Code of Conduct. It also ensures that an effective risk management process exists in the major regulated subsidiaries and that the Beazley group has an effective framework and process for managing its risks.

Nomination committee

Chair
David Roberts

Members
George Blunden
Sir Andrew Likierman
Catherine Woods

Key responsibilities
The nomination committee is focused on evaluating the board of directors, ensuring an appropriate balance of skills, considering and recommending board and committee candidates and considering board succession.

Remuneration committee

Chair
Sir Andrew Likierman

Members
George Blunden
John Sauerland
Catherine Woods

Key responsibilities
The remuneration committee ensures that remuneration arrangements support the strategic aims of the business and enable the recruitment, motivation and retention of senior executives while complying with the requirements of regulatory and governance bodies, satisfying the expectations of shareholders and remaining consistent with the expectations of the wider employee population.

Disclosure committee

Chair
Group finance director or their nominee

Members
Chief executive officer (or their nominee)
Chief risk officer
Company secretary

Key responsibilities
The disclosure committee has responsibility to oversee the implementation of the governance and procedures associated with the assessment, control and disclosure of inside information in relation to the company.

Executive committee

Chair
Andrew Horton

Members
Martin Bride
Adrian Cox
Mike Donovan
James Eaton
Ian Fantozzi
Patrick Hartigan
Anthony Hobkinson
Dan Jones
Sally Lake
Lou Ann Layton
Richard Montminy
Andrew Pryde
Jerry Sullivan
Christian Tolle
Tim Turner
Pippa Vowles

Key responsibilities
The executive committee manages all operational activities of the group and acts under the powers delegated by the board. It has responsibility for proposing strategic initiatives and group/syndicate business plans to the board as well as for reviewing the risk management framework and oversight of the group's sub-committees and business functions.

1 David Roberts was appointed as Chair, taking over from Dennis Holt, with effect from the AGM which took place on 23 March 2018.
2 Nicola Hodson was appointed to the board with effect from 10 April 2019.
3 John Reizenstein was appointed to the board with effect from 10 April 2019.
4 George Blunden resigned from the board with effect from 21 March 2019.

B.1 General information on the system of governance *continued*

The roles of the chair and chief executive are separate with each having clearly defined responsibilities. They maintain a close working relationship to ensure the integrity of the board's decision making process and the successful delivery of the group's strategy. The board evaluates the membership of its individual board committees on an annual basis and the board committees are governed by terms of reference which detail the matters delegated to each committee and for which they have authority to make decisions.

The board

In 2018 the board consisted of a non-executive chair, David Roberts who replaced Dennis Holt, who stood down in March 2018, together with seven independent non-executive directors and four executive directors, of whom Andrew Horton is chief executive. On 10 April 2019 the board appointed Nicola Hodson and John Reizenstein as non-executive directors. George Blunden stepped down from the board on 21 March 2019. The non-executive directors, who have been appointed for specified terms, are considered by the board to be independent of management and free of any relationship which could materially interfere with the exercise of their independent judgement.

The board has a schedule of matters reserved for its decision. This includes: inter alia, strategic matters; statutory matters intended to generate and preserve value over the longer term; approval of financial statements and dividends; appointments and terminations of directors, officers and auditors; and appointments to committees and setting of their terms of reference. It is responsible for: the review of group performance against budgets; approving material contracts; determining authority levels within which management is required to operate; reviewing the group's annual forecasts; and approval of the group's corporate business plans, including capital adequacy and the Own Risk and Solvency Assessment (ORSA). The board is responsible for determining the nature and extent of the principal risks it is willing to take in pursuing its strategic objectives. To this end, the board is responsible for the capital strategy, including the group's Solvency II internal model.

A well defined operational and management structure is in place and the roles and responsibilities of senior executives and key members of staff are clearly defined.

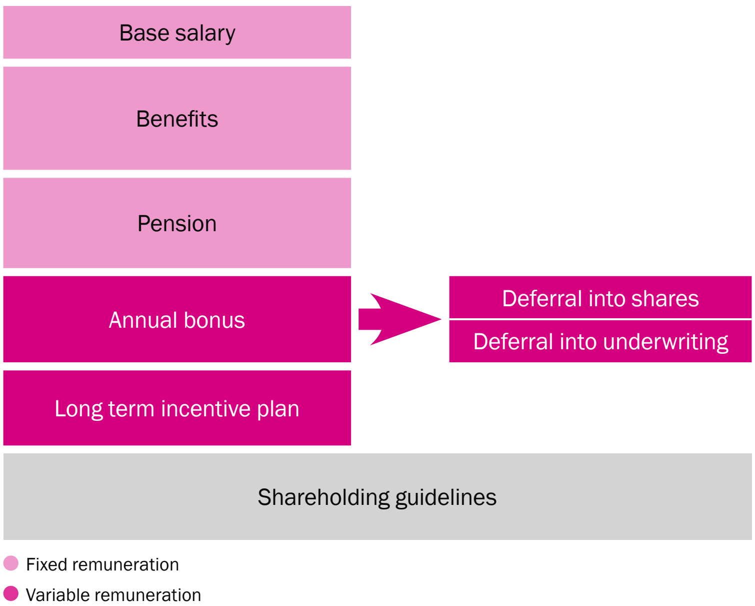
A review of the systems of governance is carried out annually and the 2018 review concluded that no further actions were required. There have been no material changes in the system of governance over the reporting period.

Remuneration policy and practices

The board has adopted a remuneration policy which is overseen and reviewed by the Beazley plc remuneration committee. The main aim of the policy is to ensure that management and staff are remunerated fairly and in such a manner as to facilitate the recruitment, retention and motivation of suitably qualified personnel.

Beazley believes that:
- performance-related remuneration is an essential motivation to management and staff and should be structured to ensure that executives' interests are aligned with those of shareholders;
- individual rewards should reflect the group objectives and be dependent on the profitability of the group but should be appropriately balanced against risk considerations;
- the structure of packages should support meritocracy, an important part of Beazley's culture;
- reward potentials should be market-competitive; and
- executives' pay should include an element of downside risk.

Elements of remuneration



- Benefits may include private medical insurance, travel insurance, and company car or monthly car allowance
- Defined contribution pension plan or cash equivalent
- Discretionary annual bonus from an incentive pool generated by reference to ROE and awarded based on individual performance
- Three and five year LTIP time horizons
- Performance against long term NAVps targets
- LTIP awards may be forfeited if shareholding guidelines are not met

B. System of governance *continued*

B.1 General information on the system of governance *continued*

Beazley's policy is to maintain a suitable balance between fixed and variable remuneration which will vary depending on individual's role and seniority.

The following table illustrates the relative importance of the fixed and variable elements of remuneration for executive directors of Beazley plc.

Element		'Minimum'	'On-plan'	'Maximum'
Fixed remuneration	Base salary	Annual base salary		
	Pension	15% of base salary		
	Benefits	Taxable value of annual benefits provided in 2018		
Annual variable remuneration (cash and deferred shares)		0% of salary	150% of salary	400% of salary
Long Term Remuneration (LTIP)		0% vesting	25% vesting	100% vesting
Clawback and malus provisions	For deferred share awards and LTIP awards (from 2012) malus provisions were introduced. For executive directors for LTIP awards from 2015 and annual bonus in respect of 2015 and onwards, clawback provisions also apply.			

Independent non-executive directors' fees comprise payment of an annual basic fee and additional fees to reflect specific responsibilities, where applicable. No independent non-executive director participates in the group's incentive arrangements or pension plan.

The following tables set out the additional incentive arrangements for staff other than executive directors of Beazley plc.

Element	Objective	Summary
Profit related pay plan	To align underwriters' reward with the profitability of their account.	Profit on the relevant underwriting account as measured at three years and later.
Support bonus plan	To align staff bonuses with individual performance and achievement of objectives.	Participation is limited to staff members not on the executive or in receipt of profit related pay bonus. The support bonus pool may be enhanced by a contribution from the enterprise bonus pool.
Retention shares	To retain key staff.	Used in certain circumstances. Full vesting dependent on continued employment over six years.

The remuneration committee regularly reviews developing remuneration governance in the context of Solvency II remuneration guidance, other corporate governance developments and institutional shareholders' guidance. The group chief risk officer reports annually to the remuneration committee on risk and remuneration as part of the regular agenda. The committee believes the group is adopting an approach which is consistent with, and takes account of, the risk profile of the group.

B.1 General information on the system of governance *continued*

The performance criteria on which variable components of remuneration are based are as follows:

Incentive plan	Performance measures	Why performances measures were chosen and target is set
Annual bonus plan	Profit and ROE, risk adjustment, individual performance.	• The committee believes the approach to the determination of bonuses creates alignment to shareholders' interests and ensures that bonuses are affordable, while the ROE targets increase the performance gearing and the risk adjustment is consistent with and promotes effective risk management. • The committee reviews the bonus pool framework each year to ensure that it remains appropriate and targets are set taking into account the prevailing environment, interest rates and expected investment returns, headcount and any other relevant factors. • A key principle of the process is that the committee exercises its judgement in determining individual awards taking into account the individual's contribution and performance.
Long term incentive plan	Growth in net asset value per share (NAVps) over three years and five years.	• Creates alignment to one of Beazley's key performance indicators. • The committee reviews the NAVps targets periodically to ensure they remain appropriate with reference to the internal business plan, the external environment and market practice. • In the event that NAVps were to become unsuitable as a performance measure in the opinion of the committee (for example due to a change in accounting standards) the committee would substitute a measure which followed broadly similar principles.
Investment in underwriting	The plan mirrors investment in an underwriting syndicate.	• The Beazley staff underwriting plan provides for participants to contribute personal capital to Beazley syndicates. Selected staff are invited to participate through bonus deferral with an element of cash incentives 'at risk' as capital commitments.
Malus	To include provisions that would enable the company to recover sums paid or withhold payment of any sum in circumstances when it would be appropriate to do so.	• Malus provisions apply to the LTIP and deferred shares whereby the committee has the discretion to reduce or withhold an award in certain circumstances.

Pension benefits for executive directors and staff are provided by way of a defined contribution scheme.

Prior to 31 March 2006 the company provided pension entitlements to directors that are defined benefit in nature, based on its legacy policy under the Beazley Furlonge Limited Final Salary Pension Scheme. Future service accruals ceased on 31 March 2006. Under the Beazley Furlonge Limited Final Salary Pension Scheme, on early retirement the director receives a pension which is reduced to reflect early payment in accordance with the rules of the scheme. No other pension provisions are made.

Material transactions with shareholders, with persons who exercise a significant influence on Beazley, and with members of the board

Information about transactions with:
- the executive members of the board are as described above; and
- the non-executive members of the board are as described in page 105 of the Beazley plc Annual report and accounts 2018.

B. System of governance *continued*

B.2 Fit and proper requirements

Beazley's approach is to ensure that all key functions of the firm are identified with prescribed responsibilities allocated and that persons who effectively run the undertaking or have other key functions, and are important to the sound and prudential management of the undertaking, fulfil the following requirements:

- their professional qualifications, knowledge and experience are adequate to enable sound and prudent management (fit);
- they are of good repute and integrity (proper); and
- they meet the PRA and Financial Conduct Authority (FCA) conduct standards.

Beazley group's policy is that board members, PRA and FCA Senior Management Functions (SIMFs), FCA Significant Influence Functions (SIFs) and FCA Key Function Holders (KFHs), and Central Bank of Ireland (CBI) Pre-approved Controlled Functions (PCFs) and Controlled Functions (CFs) for these entities must meet the fit and proper criteria and conduct standards as set out by the PRA and FCA and the fitness and probity standards as required by the CBI, and in that regard Beazley will ensure compliance with the provisions of Solvency II, to which the SMR and the CBI regime are aligned. The high level requirements are:

- honesty, integrity and reputation;
- competence and capability; and
- financial soundness.

Beazley seeks to ensure that members of the supervisory bodies of Beazley Furlonge Ltd (BFL) and Beazley Insurance dac (BIdac), all SIMFs, PCFS and CFs (collectively – 'approved persons') possess sufficient professional qualifications, knowledge and experience in the relevant areas of the business to give adequate assurance that they are collectively able to provide a sound and prudent management of the entities. Beazley also applies this approach to the directors of Beazley plc in addition to the regulated entity boards. The assessment of whether a person is 'fit' shall take account of the respective duties allocated to that person and, where relevant, the insurance, financial, accounting, actuarial and management skills of the person. In the case of members of the relevant boards, the assessment shall take account of the respective duties allocated to individual members to ensure appropriate diversity of qualification, knowledge and relevant experience to ensure that the business is managed and overseen in a professional manner.

Additionally Beazley's policy is to assess the fitness of approved persons against the key competencies required by the CBI, namely:

- conduct to be competent and capable – a person shall have the qualifications, experience, competence and capacity to the relevant function;
- conduct to be honest, ethical and to act with integrity – a person must be able to demonstrate that his or her ability to perform the relevant function is not adversely affected to a material degree; and
- financial soundness – a person shall manage his or her affairs in a sound and prudent manner.

Beazley's policy is to apply this approach to both external and internal appointments. Beazley then tailors individual development plans, including mentoring as appropriate, for the appointee to ensure that they are able to fulfil their obligations in their approved person roles.

B.3 Risk management system including ORSA

Risk management strategy

The Beazley plc board has delegated executive oversight of the risk management department to the executive committee, which in turn has delegated immediate oversight to the risk and regulatory committee. The Beazley plc board has also delegated oversight of the risk management framework to the audit and risk committee and the primary regulated subsidiary boards have each established a board risk committee.

Clear roles, responsibilities and accountabilities are in place for the management of risks and controls, and all employees and Beazley Management Limited (BML) staff working on behalf of the company are aware of the role they play in all aspects of the risk management process, from identifying sources of risk to their part in the control environment. The impact of each risk is recorded in the risk register on a 1:10 likelihood of that risk manifesting in the next 12 months. A risk owner has been assigned responsibility for each risk, and it is the responsibility of that individual to periodically assess the impact of the risk and to ensure appropriate risk mitigation procedures are in place. External factors facing the business and the internal controls in place are routinely reassessed and changes are made when necessary. On an annual basis, the board agrees the risk appetite for each risk event and this is documented in the risk management framework document. The residual financial impact is managed in a number of ways, including:

- mitigating the impact of the risk through the application of controls;
- transferring or sharing risk through outsourcing and purchasing insurance and reinsurance; and
- tolerating risk in line with the risk appetite.

In addition, the following risk management principles have been adopted:

- risk management is a part of the wider governance environment;
- techniques employed are fit for purpose and proportionate to the business;
- risk management is a core capability for all employees;
- risk management is embedded in day-to-day activities;
- there is a culture of risk awareness, in which risks are identified, assessed and managed;
- risk management processes are robust and supported by verifiable management information; and
- risk management information and reporting is timely, clear, accurate and appropriately escalated.

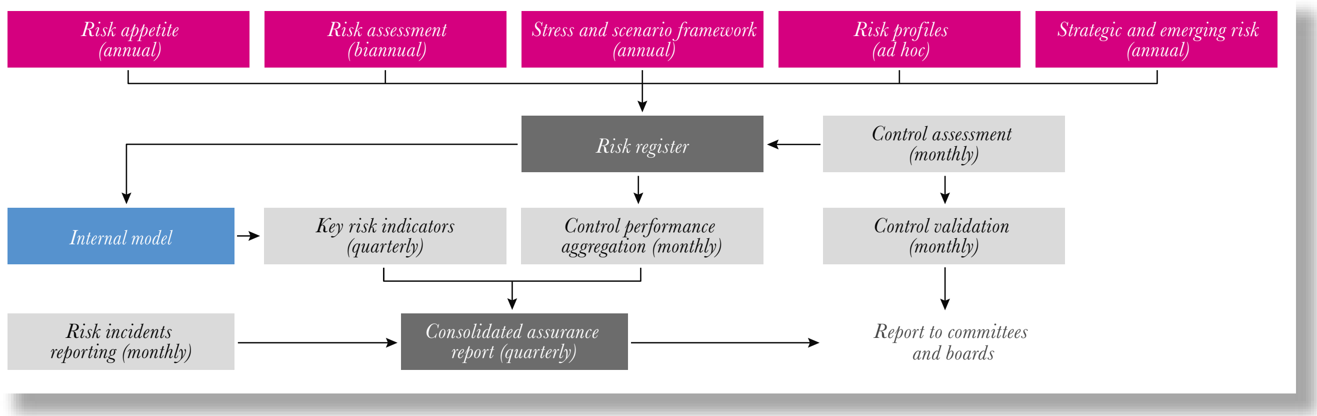
B.3 Risk management system including ORSA *continued*

Risk management framework

Beazley has adopted the 'three lines of defence' framework: namely business risk management, the risk management function and the internal audit function. Within business risk management, there are two defined risk and control roles: risk owner and control reporter. Each risk event is owned by the risk owner who is a senior member of staff. Risk owners, supported by the risk management team, formally perform a risk assessment twice a year, including an assessment of heightened and emerging risks.

Business risk management *Risk ownership*	*Risk management* *Risk oversight*	*Internal audit* *Risk assurance*
– *Identifies risk* – *Assesses risk* – *Mitigates risk* – *Monitors risk* – *Records status* – *Remediates when required*	– *Are risks being identified?* – *Are controls operating effectively?* – *Are controls being signed off?* – *Reports to committees and board*	– *Independently tests control design* – *Independently tests control operation* – *Reports to committees and board*

The risk management framework comprises a number of risk management components, which when added together describe how risk is managed on a day to day basis. The framework includes a risk register that captures the risk universe (35 risk events grouped into eight risk categories: insurance, market, credit, liquidity, operational, regulatory and legal, group and strategic), the risk appetite set by the Beazley plc board, and the control environment that is operated by the business to remain within the risk appetite. The following diagram illustrates the components of the risk management framework.



In summary, the board identifies risk, assesses risk and sets risk appetite. The business then implements a control environment which describes how the business should operate to stay within risk appetite. Risk management then reports to the board on how well the business is operating using a consolidated assurance report. For each risk, the consolidated assurance report brings together a view of how successfully the business is managing risk, qualitative commentary from the assurance functions and whether there have been any events that Beazley can learn from (risk incidents). Finally, the framework is continually evaluated and where appropriate improved, through the consideration of stress and scenario testing, themed reviews using risk profiles and an assessment of strategic and emerging risks.

A suite of risk management reports are provided to the boards and committees to assist senior management and board members to discharge their oversight and decision making responsibilities. The risk reports include the risk appetite statement, the consolidated assurance report, risk profiles, stress and scenario testing, reverse stress testing, an emerging and strategic report, a report to the remuneration committee and the ORSA report.

The internal audit function considers the risk management framework in the development of its audit universe to determine its annual risk-based audit plan. The plan is based on, among other inputs, the inherent and residual risk scores as captured in the risk register. Finally, a feedback loop operates, with recommendations from the internal audit reviews being assessed by the business and the risk management function for inclusion in the risk register as appropriate.

B. System of governance *continued*

B.3 Risk management system including ORSA *continued*

Own risk and solvency assessment

The Solvency II Directive indicates that the ORSA is 'the entirety of the processes and procedures employed to identify, assess, monitor, manage, and report the short and long term risks a company faces or may face and to determine the own funds necessary to ensure that the undertaking's overall solvency needs are met at all times'.

In other words, the ORSA is the consolidation of a collection of processes resulting in the production of a quarterly report to provide risk committees and boards with sufficient information to enable an assessment of the short term and long term risks faced by the entity and the capital required to support these risks.

The majority of these underlying processes have existed at Beazley for some time and so an important role of the ORSA is to ensure that the timing of these processes are coordinated in order to provide the appropriate management information in a timely manner.

Beazley's interpretation is that there are three parts to the ORSA deliverables:

- ORSA governance;
- ORSA processes: coordination of a number of underlying processes; and
- ORSA reports: summary of the findings from these processes.

ORSA Governance

The overarching governance structure for Solvency II is illustrated below. Within this context, each board has ultimate responsibility for the ORSA for their respective entity.

Solvency II governance structure

Beazley plc board

↑

Subsidiary boards (BICI, BFL, BIdac)

↑

Board risk committees (BICI, BFL, BIdac)

↑

	Pillar I	Pillar II	Pillar III
Oversight committee		Risk and regulatory committee	Audit committee
Working group	Internal Model Group (IMG)	N/A	Regulatory review committee

The risk management function is responsible for the coordination of the ORSA process and the production of the ORSA report.

The ORSA process is run regularly on a quarterly basis (unless the risk profile significantly changes, see below). As the underlying processes are not all updated on a quarterly basis, Beazley will use the latest version of each. The timeframes and interactions between the underlying processes over a typical year are set out below.

An executive committee member is responsible for the delivery of the underlying processes to ensure senior management involvement and challenge exists at the most granular level of the ORSA.

The risk and regulatory committee will oversee an ad hoc ORSA outside this regular reporting period when there has been a material change to the risk profile or the environment within which Beazley is operating. The triggers for such an ad hoc ORSA are:

- major internal model changes as per the model change policy;
- new business plan is submitted to Lloyd's;
- prior to the completion of a board sponsored acquisition; or
- any other changes deemed by the Beazley plc board to be significant.

B.3 Risk management system including ORSA *continued*

Committee and board oversight

An ORSA report is produced after the completion of each ORSA process for review and is reviewed by the risk and regulatory committee. In addition to providing challenge from an executive perspective, this review forms part of the quality assurance process to ensure the quality of risk information being presented to the board.

A Beazley Insurance Company, Inc (BICI) version of the ORSA is reviewed by the BICI audit and risk committee and the BICI board annually before it is submitted to the Connecticut department of insurance.

A BFL version of the ORSA is reviewed by the BFL risk committee on a quarterly basis. In addition to providing challenge from a non-executive perspective, this review also forms part of the quality assurance process. The BFL ORSA is then presented to the BFL board for consideration and approval before it is submitted to Lloyd's and the PRA.

A BIdac version of the ORSA is reviewed by the BIdac risk and compliance committee on a quarterly basis. In addition to providing challenge from a non-executive perspective, this review also forms part of the quality assurance process. The BIdac ORSA is then presented to the BIdac board for consideration and approval before it is submitted to the CBI.

A Beazley plc version of the ORSA is reviewed by the Beazley plc board on a quarterly basis. The Beazley plc ORSA is an aggregation of the subsidiary ORSAs and goes straight to board as it will have already received significant challenge and Quality Assurance (QA) review by the subsidiary committees and boards.

On an annual basis, a more detailed year end ORSA is produced for submission to the respective regulators. This regulatory ORSA combines the contents of the quarterly ORSAs reviewed by the board of the entity. In addition, it contains other supporting information requested by regulators such as policies and supplementary evidence. An assessment is made against the regulatory guidance prior to submission to regulators to ensure that the ORSA meets the relevant regulatory requirements.

The committees and boards will evidence the consideration of the ORSA by way of minutes to demonstrate the discussion, decision making and actions taken as a result of the ORSA.

The ORSA is subject to an independent review by internal audit as part of their risk based audit.

Relationship between the internal model and the ORSA

The internal model is an important input into the ORSA. The ORSA uses the same internal model and basis as that used to estimate the Solvency Capital Requirement (SCR) and so there is no difference in the recognition and valuation bases. Any limitations of the internal model relevant to the ORSA will be discussed in the regulatory ORSA.

B. System of governance *continued*

B.3 Risk management system including ORSA *continued*

ORSA process

The underlying processes that make up Beazley's ORSA process are summarised in the table below.

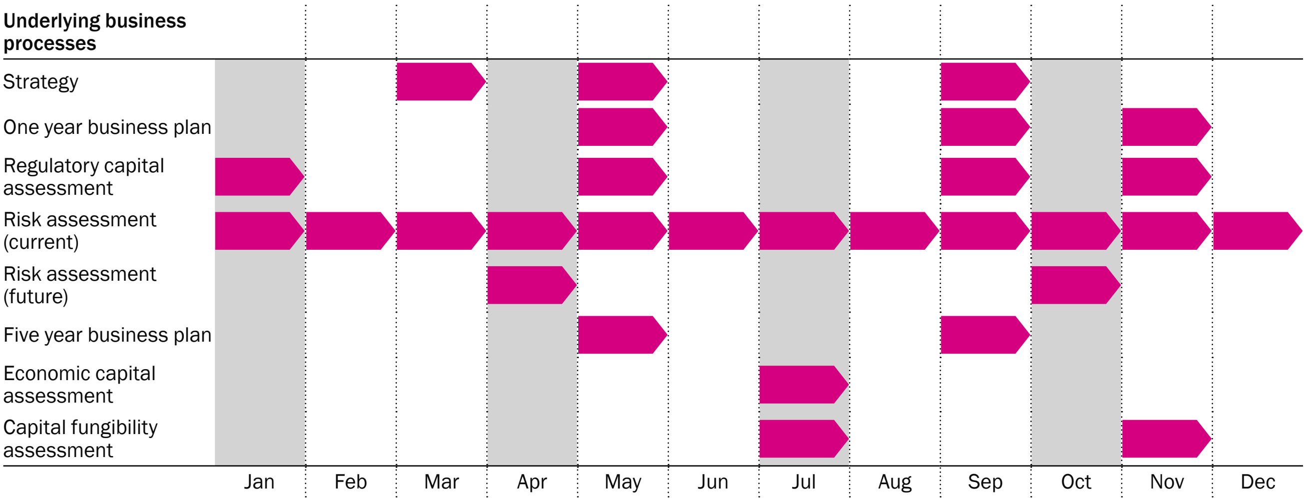
Process	Process owner/ oversight committee
Group strategy Bi-annual strategy and performance group meetings Annual board strategy away day Monthly monitoring of the strategic initiatives by the executive committee	Chief executive Executive committee
Risk appetite Approve risk appetite statements Approve annual risk appetite levels for BICI Approve annual risk appetite levels for BFL Approve annual risk appetite levels for BIdac	Chief risk officer Boards
Risk assessment – current Risk profile Consolidated assurance report • control performance and comments from assurance function • comparison of residual risk score with risk appetite • risk incident log entries Assessment of key risk indicators Exposure management Changes to risk profile	Chief risk officer Risk and regulatory committee
Risk assessment – future Bi-annual risk assessment with risk owners Annual review of strategic and emerging risks Risk profiles	Chief risk officer Risk and regulatory committee
Stress and scenario testing Stress testing Scenario testing Reverse stress testing	Chief risk officer Risk and regulatory committee
One year business plan Challenge process overseen by underwriting committee Formal report produced by underwriting committee	Chief underwriting officer Underwriting committee
Regulatory capital assessment **Parameterised from one year business plan** Analysis of change and capital requirement agreed with regulators	Chief risk officer Risk and regulatory committee
Economic capital assessment Capital required to achieve and maintain rating agency ratings Capital fungibility Establish dividends in line with dividend strategy	Finance director Executive committee
Five year business plan Bi-annual update of the five year plan Consideration of a number of scenarios based on macro economic trends Assessment of capital requirements under each scenario Identification of capital and dividend stress points	Chief underwriting officer Executive committee

The current timetabling of the underlying processes throughout a typical year is illustrated below. The shaded months indicate when the ORSA process occurs and the report is provided to the risk and regulatory committee for onwards reporting to committee and boards.

Each of the four regular ORSA processes has been aligned with the timing of the cascade of reporting to the risk committees, subsidiary boards and the Beazley plc board. An ORSA report will be produced after the completion of each ORSA process to address the required confirmation statements, set out the key themes arising from the underlying processes and summarise any action being proposed.

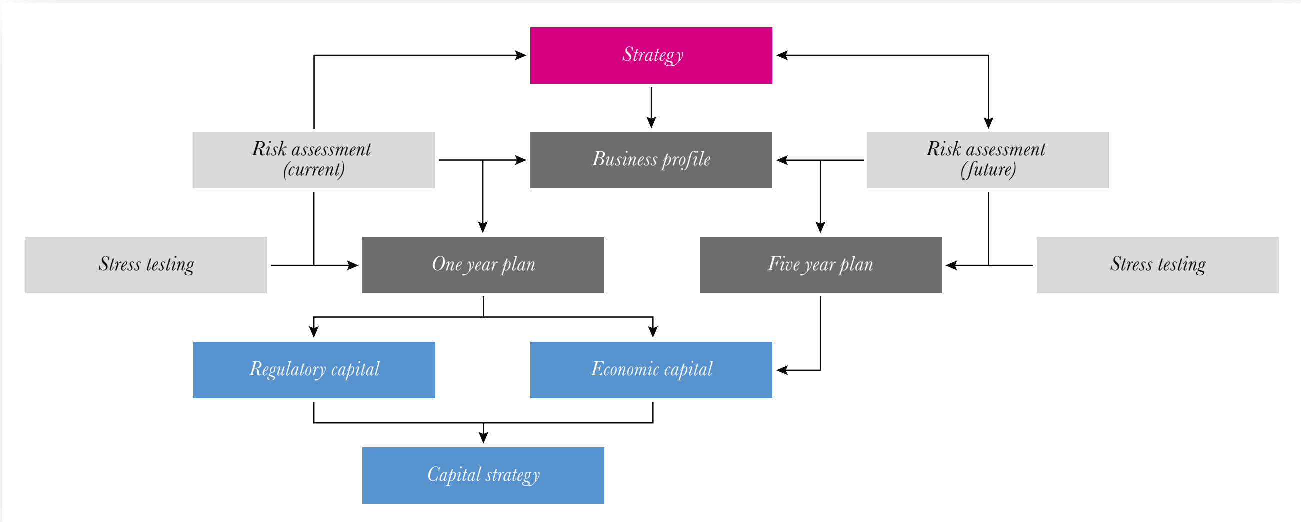
B.3 Risk management system including ORSA *continued*

Timetabling during a typical year



The linkages between the underlying processes are illustrated below. Each process will take the most up to date information from other processes.

Linkages between underlying processes



B. System of governance *continued*

B.4 Internal control system

Beazley's internal control system includes administrative and accounting procedures, an internal control framework, appropriate reporting arrangements at all levels of the business and a compliance function. It is designed to:

- secure compliance with applicable laws, regulations and administrative processes, the effectiveness and efficiency of operations in view of the business objectives and the availability and reliability of financial and non-financial information;
- ensure that adequate and orderly records of the business and internal organisation are maintained; and
- create a strong control environment with control activities that are adequately aligned to the risks of the business and the group's processes.

The effectiveness of the internal control system is monitored regularly to ensure that it remains relevant, effective and appropriate.

Beazley operates a 'three lines of defence' framework and the actuarial function and the three assurance functions of compliance, risk management and internal audit are defined as 'required' functions under the Solvency II framework. Each function is structured so that it is free from influences which may compromise its ability to undertake its duties in an objective, fair and independent manner and in the case of the internal audit function in a fully independent manner.

The board receives assurance that the business is operating how it expects from the following required functions:

- the actuarial function provides assurance that the reserves held on the balance sheet are appropriate;
- the compliance function provides assurance that Beazley is operating within the relevant legal and regulatory framework;
- the risk management function provides assurance that the business is operating within risk appetite; and
- the internal audit function provides assurance that the whole internal control framework (including the activities of the other functions set out above) is designed and operating effectively.

Compliance function

1. The group's approach to compliance

The Beazley plc board has set a residual minimal risk appetite for regulatory breaches and sanctions. The boards of the group entities and the service companies are committed to ensuring that the group adopts an ethical and compliant culture that is cascaded throughout the organisation. Directors, senior management and staff are all expected to comply with these high standards of ethical business conduct.

2. Compliance within the corporate governance and risk management frameworks

Whilst ultimately the boards of the various regulated entities are responsible for ensuring compliance with the relevant regulations, the group's governance framework includes a number of board and executive committees with delegated authority to consider matters within their remit. The executive committee has been delegated a number of activities by Beazley plc, such as the receipt of reports and updates relating to matters associated with Beazley Furlonge Ltd, the Lloyd's service companies and Beazley Insurance Company Inc. To assist with this responsibility, the executive committee has set up a risk and regulatory committee to maintain direct oversight of the compliance function to matters pertaining to regulatory risk. It escalates matters to the executive committee, boards and board committees as appropriate.

The global head of compliance is a member of the risk and regulatory committee and attends by invitation the BFL board, BFL risk, Beazley plc audit & risk and underwriting committees. Compliance provides regular updates to these fora and also to the executive committee.

Within the group's risk management framework, the compliance function's activities fall within both the first and second "lines of defence".

3. Compliance framework

Independence and authority

To ensure independence, all compliance staff report ultimately to the global head of compliance who reports to the Chief Financial Officer (CFO). Compliance has full and free access to the chair of the group's audit and risk committees and the chair of the board of directors of all relevant Beazley group boards, including Beazley plc, Beazley Insurance dac, BFL, Beazley Insurance Company Inc. and the Lloyd's service companies. Compliance is authorised to have full, free and unrestricted access to all members of the group's management, its books and records, physical properties, vendors, and other sources of information relevant to the performance of its work.

B.4 Internal control system *continued*

Within compliance itself, compliance monitoring is performed by a separate monitoring team which has a direct reporting line to the global head of compliance.

Adequacy of resources

It is important that compliance is appropriately resourced to meet the current and future needs of the business. A review of the compliance resources is carried out as necessary and at least annually as part of the planning process. In situations where additional resources are needed in the short term (e.g. for projects), compliance management will consider the use of contract staff or external lawyers or other consultants.

Risk appetite

Compliance undertakes all of its responsibilities within the regulatory risk appetite set by the Beazley plc board and agreed by other boards in the group. Within the risk management framework, there are four regulatory risk events with associated controls. The compliance function is responsible for these events including reporting on the controls mapped to them:

- **regulatory and legal risk** – risk arising from not complying with external regulatory and legislative requirements leading to financial loss, sanctions or reputational damage;
- **trading status** – risk arising from Beazley entities and staff trading without appropriate licences and permissions leading to financial loss, sanctions or reputational damage;
- **regulatory reporting** – risk arising from insufficient or incorrect disclosures to relevant regulatory authorities leading to financial loss, sanctions or reputational damage; and
- **financial crime risk** – risk of regulator or police action as a result of money laundering, breach of trading restrictions, internal or external fraud, bribery or corruption or other financial crime leading to financial loss, sanctions or reputational damage.

4. Compliance activities

The compliance function's two overarching activities, advisory and monitoring, fit within the three lines of defence as follows:

- **advisory** (first line of defence) – assessing the potential impact of changes in the legal & regulatory environment to the group. Advising the business on the proper application of upcoming and existing regulatory requirements in relation to both, business as usual and project activities. Amending policies and procedures accordingly and providing corresponding training where necessary; and
- **monitoring** (second line of defence) – monitoring provides assurance that the group's regulatory policies and procedures are being adhered to, which in turn helps to ensures the business operates within established external regulatory requirements.

The compliance function's other key activities are summarised below.

Regulatory relationships – the group seeks to maintain positive and transparent relationships with each of its regulators. Compliance coordinates the group's relationships with its regulators.

Authorisations, approvals, licences and permissions – compliance is responsible for obtaining the necessary authorisations, licences and permissions for the group. This is to ensure that syndicates, legal entities, products and employees in the group have the appropriate authorities throughout each country for their business activities. Below are some examples of the type of licenses and permissions compliance obtains:

- regulated entity permissions;
- FCA/PRA approved persons' applications (UK);
- Central Bank of Ireland permissions – legal entity and individual;
- service company permissions globally – legal entity and individual;
- Lloyd's trading licences;
- Lloyd's permissions for branch offices of our services companies;
- admitted products – US;
- producer/surplus lines licences – corporate and individual – US;
- claims manager licences – US;
- entity adjuster licences – US; and
- reinsurance intermediary licenses – US.

Group policies: the function supports certain group policies as follows:

- **whistleblowing** – compliance supports the chair of the Beazley plc audit and risk committee in their overall ownership of the group's whistleblowing process. Details of the process and compliance's responsibilities can be found in the whistleblowing policy;
- **financial crime** – this policy is owned by compliance, which is responsible for setting and disseminating the policy and its control framework;
- **sanctions** – this policy is owned by the global head of compliance and compliance is primarily responsible for: 1) advising on appropriate preventative controls, 2) monitoring that the controls are being implemented by the proper business functions, and 3) to perform enhanced due diligence when required by the policy; and
- **anti-fraud** – this policy is owned by the global head of compliance and compliance is primarily responsible for 1) maintaining and communicating this policy, 2) delivering mandatory anti-fraud training, and 3) monitoring the application of the policy when alerted to a potential fraud.

Reporting – compliance provides regular reports to various boards and board committees, including the executive committee and other committees in the executive governance framework. The reports are designed to facilitate oversight of the compliance function's activities, or provide updates on internal and external regulatory matters.

Regulatory returns – there are numerous regulatory returns that must be submitted to various regulators across the group. For some of those returns compliance plays a key role supporting the business to ensure they are filed with our regulators in a timely fashion.

B. System of governance *continued*

B.4 Internal control system *continued*

Regulatory breaches – compliance is responsible for reporting regulatory breaches both within the internal governance framework and externally as required.

Product development – compliance provides regulatory assistance during the design and launching of new products, including the expansion of existing products. Assistance includes research and advice to ensure products are developed efficiently, consistent with local regulations and in line with the group's regulatory risk appetite.

Complaints – the responsibility for ensuring that complaints are handled appropriately and in accordance with the group's complaints handling policy ultimately rests with the relevant regulated board. The complaints team which is part of the operations function is responsible for the complaints policy. Compliance assists with complaints activity, for example by reviewing responses to complaints in the US and by monitoring the effectiveness of the complaints handling process.

B.5 Internal audit function

Beazley has established an internal audit function, the purpose of which is to provide independent and objective assessments of the design and operating effectiveness of the system of internal controls covering the integrity of financial statements and reports, compliance with laws, regulations and corporate policies and the effective management of risks faced by Beazley in executing its strategic and tactical operating plans.

The internal audit team

The internal audit function has a head count of nine staff including the head of internal audit. The majority of the team, including the head of internal audit, is based in Beazley's London office. Three members of staff are based in the group's Farmington office in Connecticut, USA.

Co-sourcing

In addition to its headcount the internal audit function has a budget which it uses to supplement its team with subject matter expertise through co-sourcing.

Audit universe and annual audit plan

The audit function has developed an audit 'universe'. This universe represents the potential range of business areas and topics – known as 'audit entities' – that internal audit reviews.

The remit of the internal audit function extends to any business activity undertaken by the group. Using a risk based methodology, these audit entities are prioritised with a view to ensuring that the most material or highest risk audit entities are audited most frequently. The frequency with which audit entities are reviewed is also considered in light of regulatory or other external requirements. The group's internal audit strategy is to review all of the audit entities at least once on a rolling four year basis.

The audit universe – and the resulting annual audit plan – is reviewed and approved annually by the Beazley plc audit and risk committee. Any potential changes to the audit plan are first proposed and agreed with that committee. Typically the annual group audit plans consists of between 15-25 reviews a year and cover topics which include, for example: underwriting; claims; IT and information security; risk management; compliance; and reserving.

Management actions and verification work

An established part of the internal audit process includes undertaking work to verify that management have adequately completed their actions arising from audits.

Internal audit undertakes verification of those audit actions on a risk-based approach (i.e internal audit checks evidence related to all high actions and checks evidence for a risk based sample of medium and low actions). To date, where verification work has been undertaken it has been rare for us to identify issues with the actions management have said they would implement. Verification work can include, for example: interviewing staff; reviewing documentation and re-performing the control. Any overdue audit actions are reported to the various committees as part of ongoing committee reporting.

Independence and objectivity

The internal audit function's independence and objectivity is maintained in a number of ways:
- the head of internal audit reports to a non-executive director (the chair of the Beazley plc audit and risk committee), and for operational matters to the chief executive officer;
- the Beazley plc audit and risk committee annually reviews and approves an internal audit charter that sets out the roles and responsibilities of the head of internal audit and the internal audit function;
- the internal audit function is not mandated to undertake any form of business activity and its remit is restricted to assurance and consultation work as approved by the Beazley plc audit and risk committee;
- the internal audit plan and budget is approved by the Beazley plc audit and risk committee (a non-executive committee);
- the head of internal audit rotates staff between audit assignments to ensure objectivity and independence; and
- the head of internal audit must provide annual representations to the committee on the ongoing independence and objectivity of the internal audit function.

B.6 Actuarial function

The actuarial function is primarily responsible for reserving and pricing at Beazley. The principles specific to the discharge of the duties of the actuarial function under Solvency II are:
- to have appropriately skilled staff; and
- to have an objective, independent and supportable position based on high quality technical work.

The actuaries that comprise the actuarial function are fellows/students of the Institute & Faculty of Actuaries (or equivalent) and operate under the standards set out by the Institute & Faculty of Actuaries and the Financial Reporting Council (or equivalent).

B.6 Actuarial function *continued*

Actuarial advice provided on a formal basis, for example to a committee or for external publication, is subject to peer review. The actuarial function can express actuarial/professional opinions free from undue influence from the business. The members of the actuarial function are required to be objective and take reasonable steps to ensure they are free from bias or from conflicts of interest that could suggest bias.

The group actuary does not perform any other function at Beazley that could give rise to a conflict of interest.

Board and committee interaction

The group actuary and the actuarial function have a number of interactions with the board and its various committees. Examples of this include (but are not limited to):

- the peer review committee, delegated from the underwriting committee, carries out detailed review of reserves. Here, the members of the actuarial function present details of their reserving output as well as that from the underwriting teams;
- the group actuary is a member of the underwriting committee, the BIdac reinsurance underwriting working group and presents to those committees on a number of areas including pricing, rate change and reserving (including a summary output from the peer review committee);
- the group actuary (or members of the actuarial function) presents summary output from the peer review committee to the BFL audit committee, BIdac audit committee and Beazley plc audit and risk committee;
- the group actuary (or members of the actuarial function) presents the BFL audit committee with results of the technical provision valuation;
- the group actuary (or members of the actuarial function) presents the BFL, BIdac and Beazley plc audit committees with the actuarial function report;
- the group actuary has Knowledge Requirements of An internal Model, (KRAM) meetings with both executive and non-executive directors. These are one to one meetings, used to discuss various outputs from the actuarial function. This is in addition to committee presentation, and enables greater detailing and questioning. These meetings occur with a number of relevant directors, and are scheduled once or twice a year;
- the group actuary has regular one on one catch ups with the chief executive officer, chief financial officer, chief underwriting officer and chair of the audit committee when required; and
- the group actuary is a member of the strategy and performance the group which includes all members of the executive committee as well as certain other senior managers.

Interaction with other key functions

The actuarial function at Beazley interacts with key functions as summarised below:

Function	Relationship
Underwriting teams	The actuarial function provides support and challenge during the business planning process, support on pricing of risks and development of pricing tools and analyses in support of reinsurance purchase and optimisation.
Claims teams	The actuarial function interacts with claims managers throughout the quarterly claims reserving process and particularly during the pre-peer reviews where individual assessments are reviewed.
Risk management	The actuarial function reviews the initial reserve risk ranges from the internal model and adjusts the range in specific cases where it is not deemed appropriate.
	The risk function provides the actuarial function with internal model output and assumptions for use in the calculation of the bad debt and risk margin components of the technical provisions.
	The actuarial function provides the chief risk officer with reserve surplus and reserve strength metrics for reference in the ORSA and is involved in a number of other areas of the ORSA.
Talent management	Support the training and development needs of the actuarial function such that a professional staff can be maintained with sufficient skills, experience and professional qualifications to meet the requirements of the actuarial function.
Data management	The actuarial function is a key consumer of data at Beazley and that data is managed by the data management team. The data management team and various business system owners ensure that the actuarial function has the internal data necessary to discharge its responsibilities. The key data inputs for the actuarial function are the gross and net triangles produced on a monthly basis. The head of actuarial function is the business system owner for ResQ, the reserving software.
Finance	The actuarial function and finance function work closely together, particularly during the valuation of insurance liabilities on an underwriting year, statutory or Solvency II basis. The finance function provides the expense provision valuation for technical provisions.
IT	The actuarial function relies on IT for the maintenance of its hardware and software to agreed service levels, and for the delivery of agreed projects.
Underwriting and claims operations	Ensure the data in the source systems is of the required quality.

B. System of governance *continued*

B.7 Outsourcing

Although the activities may be transferred to an outsourced provider, the responsibility, including regulatory responsibility is not. Each relevant Beazley company remains fully responsible for meeting all of their obligations when they outsource functions or any insurance or reinsurance activities.

Outsourcing of critical or important functions or activities shall not be undertaken in such a way as to lead to any of the following:
- materially impairing the quality of the system of governance of the undertaking concerned;
- unduly increasing the operational risk;
- impairing the ability of the supervisory authorities, including Lloyd's to monitor the compliance of the undertaking with its obligations; and
- undermining continuous and satisfactory service to policy holders.

The boards of the relevant regulated entities outsourcing activities are responsible for ensuring that the outsourcing policy and the outsourcing arrangements themselves comply with the relevant regulatory regime(s) for ensuring that the due skill, care and diligence is exercised when entering into, managing or terminating any arrangement for the outsourcing to a service provider of critical, important or material functions or activities. Beazley requires service providers to cooperate with the relevant supervisory authorities in connection with the outsourced function or activity. The service provider is required to notify and seek Beazley's approval prior to sub-contracting any of the outsourced functions of the due diligence undertaken. Any subcontract is required to contain no lesser terms and conditions as that of the main contract with Beazley. Beazley staff, auditors and the relevant supervisory authorities have effective access to data related to the outsourced functions or activities and, where appropriate, the supervisory authorities have effective access to the business premises of the service provider and must be able to exercise those rights of access.

Critical or important outsourced functions

Contract name	Description of service	Regulated entity	Legal domicile of service provider
Capita	Risk capture – syndicate underwriting	BFL	UK
Xchanging Insure Services (LPSO)	Policy and claims processing	BFL	USA
Xchanging Claims Services	Xchanging claims office	BFL	USA
JMD	Credit control and broker monitoring	BFL	UK
RMSIndia	Data cleansing	BFL	USA
Health Plan Services, Inc.,	Accident & health TPA	BICI	USA
Pro IS Global (US)	Underwriting claims support	BUSA	USA
Pro IS Global (UK)	Bordereux processing	BFL	UK
Endava	IT resources	BFL	UK

There are three intra-group outsource arrangements:
- BML – a UK registered company which employs all UK staff and some staff in rest of world offices. A contract between BML and all Beazley group companies (except BICI and BIdac which are covered below), sets out the services provided and these include business premises and facilities, IT, other operational arrangements, actuarial, finance, internal audit, compliance, risk management. These may be supplemented by locally based staff as well;
- BIdac has a contract with BML for the provision of services. This is a separate arrangement from the one above and ensures that, given the relative size of the entities, the board of BIdac has sufficient control over the services provided by BML; and
- there is an agency agreement between Beazley USA Services Inc (BUSA) and BICI. All staff in the US are employed by BUSA, and therefore all of the activities of BICI are outsourced. BUSA also outsources some of its shared services to BML through the contract noted above.

B.8 Any other information

There is no other material information to report.

C. Risk profile

Beazley plc (Beazley or the group), has identified the risks arising from its activities and has established policies and procedures to manage these items in accordance with its risk appetite. The group categorises its risks into eight areas: insurance, strategic, market, operational, credit, regulatory and legal, liquidity and group risk. The sections below outline the group's risk appetite and explain how it defines and manages each category of risk.

The eight categories of risk have been considered in context of the group. The following areas are applicable to the company: market, operational, regulatory and legal, and liquidity. The following disclosures cover the company to the extent that these areas are applicable.

The risk management framework described in section B.3 includes the ongoing assessment of these risks and of the continued effectiveness of risk mitigation techniques. The stress and scenario framework is an important element of the risk management framework. The stress and scenario framework is applied to a range of business processes to assist senior management to understand the vulnerabilities within the business model. This approach encourages management's involvement in risk oversight by using real life scenarios to provide qualitative and quantitative information on what risks might look like under stressed conditions and encourages a forward looking view of risk.

In addition, as a validation tool the stress and scenario framework tests:

- assumptions, particularly where data is sparse;
- assumed correlations between assumptions;
- the availability of resources and what action might be required under stressed situations;
- whether controls perform as expected under stressed situations; and
- the effect of changes in the operating environment (e.g. external events).

There are three elements to the framework:

- **stress testing** involves looking at the impact on the business model of changing a single factor;
- **scenario testing** involves the impact on the business model of simulating or changing a series of factors within the operating environment; and
- **reverse stress testing** involves considering scenarios that are most likely to render the current business model unviable.

The group has identified the risks arising from its activities and has established policies and procedures to manage these items in accordance with its risk appetite. The group categorises its risks into eight areas: insurance, strategic, market, operational, credit, regulatory and legal, liquidity and group risk. The sections below outline the group's risk appetite and explain how it defines and manages each category of risk.

The eight categories of risk have also been considered in the context of the group. The following areas are applicable to the group: market, operational, regulatory and legal, and liquidity. The following disclosures cover the group to the extent that these areas are applicable. The group's insurance business assumes the risk of loss from persons or organisations that are directly exposed to an underlying loss. Insurance risk arises from this risk transfer due to inherent uncertainties about the occurrence, amount and timing of insurance liabilities. The four key components of insurance risk are underwriting, reinsurance, claims management and reserving.

C.1 Underwriting risk

Underwriting risk comprises four elements that apply to all insurance products offered by the group:

- **cycle risk** – the risk that business is written without full knowledge as to the (in)adequacy of rates, terms and conditions;
- **event risk** – the risk that individual risk losses or catastrophes lead to claims that are higher than anticipated in plans and pricing;
- **pricing risk** – the risk that the level of expected loss is understated in the pricing process; and
- **expense risk** – the risk that the allowance for expenses and inflation in pricing is inadequate.

We manage and model these four elements in the following three categories: attritional claims, large claims and catastrophe events.

The group's underwriting strategy is to seek a diverse and balanced portfolio of risks in order to limit the variability of outcomes. This is achieved by accepting a spread of business over time, segmented between different products, geographies and sizes. The annual business plans for each underwriting team reflect the group's underwriting strategy, and set out the classes of business, the territories and the industry sectors in which business is to be written. These plans are approved by the board and monitored by the underwriting committee.

Our underwriters calculate premiums for risks written based on a range of criteria tailored specifically to each individual risk. These factors include but are not limited to financial exposure, loss history, risk characteristics, limits, deductibles, terms and conditions and acquisition expenses.

The group also recognises that insurance events are, by their nature, random, and the actual number and size of events during any one year may vary from those estimated using established statistical techniques.

To address this, the group sets out the exposure that it is prepared to accept in certain territories to a range of events such as natural catastrophes and specific scenarios which may result in large industry losses. This is monitored through regular calculation of Realistic Disaster Scenarios (RDSs). The aggregate position is monitored at the time of underwriting a risk, and reports are regularly produced to highlight the key aggregations to which the group is exposed.

C. Risk profile *continued*

C.1 Underwriting risk *continued*

The group uses a number of modelling tools to monitor its exposures against the agreed risk appetite set and to simulate catastrophe losses in order to measure the effectiveness of its reinsurance programmes. Stress and scenario tests are also run using these models. The range of scenarios considered includes natural catastrophe, cyber, marine, liability, political, terrorism and war events.

One of the largest types of event exposure relates to natural catastrophe events such as windstorm or earthquake. Where possible the group measures geographic accumulations and uses its knowledge of the business, historical loss behaviour and commercial catastrophe modelling software to assess the expected range of losses at different return periods. Upon application of the reinsurance coverage purchased, the key gross and net exposures are calculated on the basis of extreme events at a range of return periods.

The group's high level catastrophe risk appetite is set by the board and the business plans of each team are determined within these parameters. The board may adjust these limits over time as conditions change. In 2018 the group operated to a catastrophe risk appetite for a probabilistic 1-in-250 years US event of $416.0m (2017: $370.0m) net of reinsurance. This represented an increase in our catastrophe risk appetite of 12% compared to 2017.

Lloyd's has also defined its own specific set of RDS events for which all syndicates with relevant exposures must report. Of these the three largest, net of reinsurance, events which could have impacted Beazley in 2017 and 2018 are:

	2018	
Lloyd's prescribed natural catastrophe event (total insured losses)	Modelled PML[1] (before reinsurance) $m	Modelled PML[1] (after reinsurance) $m
San Francisco quake (2018: $78.0bn)	704.4	236.9
Gulf of Mexico windstorm (2018: $112.0bn)	595.1	199.0
Los Angeles quake (2018: $78.0bn)	697.2	235.9

	2017	
Lloyd's prescribed natural catastrophe event (total incurred losses)	Modelled PML[1] (before reinsurance) $m	Modelled PML[1] (after reinsurance) $m
San Francisco quake (2017: $78.0bn)	676.9	228.2
Gulf of Mexico windstorm (2017: $112.0bn)	609.0	163.3
Los Angeles quake (2017: $78.0bn)	637.3	218.5

1 Probable market loss.

The net of reinsurance exposures for all three scenarios have increased during 2018, with the Gulf of Mexico windstorm increasing the most, by 22%. These increases are being driven by less reinsurance being purchased by the reinsurance division, which was in line with the plan to increase the natural catastrophe risk appetite in 2018.

The net exposure of the group to each of these modelled events at a given point in time is a function of assumptions made about how and where the event occurs, its magnitude, the amount of business written that is exposed to each event and the reinsurance arrangements in place.

The group also has exposure to man-made claim aggregations, such as those arising from terrorism and data breach events. Beazley chooses to underwrite data breach insurance within the specialty lines division using our team of specialist underwriters, claims managers and data breach services managers. Other than for data breach, Beazley's preference is to exclude cyber exposure where possible.

To manage the potential exposure, the board has established a risk budget for the aggregation of data breach related claims which is monitored by reference to the largest of 15 realistic disaster scenarios that have been developed internally. These scenarios have been peer reviewed by an external technical expert and include the failure of a data aggregator, the failure of a shared hardware or software platform, the failure of a cloud provider, the failure of a financial transaction system and four property damage related scenarios.

These scenarios include all aspects of coverage, including dependent business interruption. Whilst it is not possible to be precise, as there is sparse data on actual aggregated events, these severe scenarios are expected to be very infrequent. The largest realistic disaster scenario is currently lower than the exposure to the Lloyd's prescribed natural catastrophe events listed above for the group as at 31 December 2018. However, the cost of these scenarios will increase as Beazley continues to grow its data breach product. The clash reinsurance programme that protects the specialty lines account would partially mitigate the cost of most, but not all, data breach catastrophes.

Beazley also reports on cyber exposure to Lloyd's using the three largest internal realistic disaster scenarios and three prescribed scenarios which include both data breach and property damage related cyber exposure. Given Beazley's risk profile, the quantum from the internal data breach scenarios is larger than any of the cyber property damage related scenarios.

To manage underwriting exposures, the group has developed limits of authority and business plans which are binding upon all staff authorised to underwrite and are specific to underwriters, classes of business and industry. In 2018, the maximum line that any one underwriter could commit the managed syndicates to was $100m. In most cases, maximum lines for classes of business were much lower than this.

C.1 Underwriting risk *continued*

Operating divisions

In 2018, the group's business consisted of five operating divisions. The following table provides a breakdown of gross premiums written by division, and also provides a geographical split based on placement of risk.

2018	UK (Lloyd's)	US (non-Lloyd's)	Total
Marine	11%	–	11%
Political, accident & contingency	8%	1%	9%
Property	16%	–	16%
Reinsurance	8%	–	8%
Specialty lines	40%	16%	56%
Total	**83%**	**17%**	**100%**

2017	UK (Lloyd's)	US (non-Lloyd's)	Total
Marine	11%	–	11%
Political, accident & contingency	9%	–	9%
Property	15%	–	15%
Reinsurance	9%	–	9%
Specialty lines	44%	12%	56%
Total	**88%**	**12%**	**100%**

Reinsurance risk

Reinsurance risk to the group arises where reinsurance contracts put in place to reduce gross insurance risk do not perform as anticipated, result in coverage disputes or prove inadequate in terms of the vertical or horizontal limits purchased. Failure of a reinsurer to pay a valid claim is considered a credit risk which is detailed in the credit risk section on page 155 of the Beazley plc Annual report and accounts 2018.

The group's reinsurance programmes complement the underwriting team business plans and seek to protect group capital from an adverse volume or volatility of claims on both a per-risk and per-event basis. In some cases the group deems it more economic to hold capital than purchase reinsurance. These decisions are regularly reviewed as an integral part of the business planning and performance monitoring process.

The reinsurance security committee examines and approves all reinsurers to ensure that they possess suitable security. The group's ceded reinsurance team ensures that these guidelines are followed, undertakes the administration of reinsurance contracts and monitors and instigates our responses to any erosion of the reinsurance programmes.

Claims management risk

Claims management risk may arise within the group in the event of inaccurate or incomplete case reserves and claims settlements, poor service quality or excessive claims handling costs. These risks may damage the group brand and undermine its ability to win and retain business, or incur punitive damages. These risks can occur at any stage of the claims life cycle. The group's claims teams are focused on delivering quality, reliability and speed of service to both internal and external clients. Their aim is to adjust and process claims in a fair, efficient and timely manner, in accordance with the policy's terms and conditions, the regulatory environment, and the business's broader interests. Case reserves are set for all known claims liabilities, including provisions for expenses, as soon as a reliable estimate can be made of the claims liability.

Reserving and ultimate reserves risk

Reserving and ultimate reserves risk occurs within the group where established insurance liabilities are insufficient through inaccurate forecasting, or where there is inadequate allowance for expenses and reinsurance bad debts in provisions.

To manage reserving and ultimate reserves risk, the actuarial team uses a range of recognised techniques to project gross premiums written, monitor claims development patterns and stress-test ultimate insurance liability balances. An external independent actuary also performs an annual review to produce a statement of actuarial opinion for reporting entities within the group.

The objective of the group's reserving policy is to produce accurate and reliable estimates that are consistent over time and across classes of business. The estimates of gross premiums written and claims prepared by the actuarial department are used through a formal quarterly peer review process to independently test the integrity of the estimates produced by the underwriting teams for each class of business. These meetings are attended by senior management, senior underwriters, and actuarial, claims, and finance representatives.

C. Risk profile *continued*

C.2 Market risk

Market risk arises where the value of assets and liabilities or future cash flows changes as a result of movements in foreign exchange rates, interest rates and market prices. Efficient management of market risk is key to the investment of group assets. Appropriate levels of investment risk are determined by limiting the proportion of forecast group earnings which could be at risk from lower than expected investment returns, using a 1 in 10 confidence level as a practical measure of such risk. In 2018, this permitted variance from the forecast investment return was set at $150.0m. For 2019, the permitted variance is likely to be at the same level. Investment strategy is developed to be consistent with this limit and investment risk is monitored on an ongoing basis, using outputs from our internal model.

Changes in interest rates also impact the present values of estimated group liabilities, which are used for solvency and capital calculations. Our investment strategy reflects the nature of our liabilities, and the combined market risk of investment assets and estimated liabilities is monitored and managed within specified limits.

a) Foreign exchange risk

The functional currency of Beazley plc and its main trading entities is US dollars and the presentational currency in which the group reports its consolidated results is US dollars. The effect of this on foreign exchange risk is that the group is mainly exposed to fluctuations in exchange rates for non-dollar denominated transactions and to net asset translation risk on non-dollar functional currency entities.

The insurance and syndicate undertakings of the group operate in four main currencies: US dollars, sterling, Canadian dollars and euros. Transactions in all currencies are converted to US dollars on initial recognition with any resulting monetary items being translated to the US dollar spot rate at the reporting date. If any foreign exchange risk arises it is actively managed as described below.

In 2018, the group managed its foreign exchange risk by periodically assessing its non-dollar exposures and hedging these to a tolerable level while targeting to have net assets that are predominantly denominated in US dollar. As part of this hedging strategy, exchange rate derivatives were used to rebalance currency exposure across the group. Details of foreign currency derivative contracts entered into with external parties are disclosed in note 17 of the Beazley plc Annual report and accounts 2018. On a forward looking basis an assessment is made of expected future exposure development and appropriate currency trades put in place to reduce risk.

The group's underwriting capital is matched by currency to the principal underlying currencies of its written premiums. This helps to mitigate the risk that the group's capital required to underwrite business is materially affected by any future movements in exchange rates.

Some group undertakings also have foreign operations with functional currencies that are different from the group's insurance and syndicate undertakings. The effect of this on foreign exchange risk is that the group is exposed to fluctuations in exchange rates for US dollar denominated transactions and net assets arising in those foreign currency operations. It also gives rise to a currency translation exposure for the group to sterling, euro, Norwegian krone, Canadian dollars, Singapore dollars and Australian dollars on translation to the group's presentational currency. These exposures are minimal and are not hedged.

C.2 Market risk *continued*

The following table summarises the carrying value of total assets and total liabilities categorised by the group's main currencies:

31 December 2018	UK £ $m	CAD $ $m	EUR € $m	Subtotal $m	US $ $m	Total $m
Total assets	506.3	131.6	290.3	928.2	6,805.7	7,733.9
Total liabilities	(511.8)	(138.9)	(305.6)	(956.3)	(5,310.7)	(6,267.0)
Net assets	**(5.5)**	**(7.3)**	**(15.3)**	**(28.1)**	**1,495.0**	**1,466.9**

31 December 2017	UK £ $m	CAD $ $m	EUR € $m	Subtotal $m	US $ $m	Total $m
Total assets	549.0	130.8	333.6	1,013.4	6,545.3	7,558.7
Total liabilities	(514.4)	(110.0)	(304.6)	(929.0)	(5,130.8)	(6,059.8)
Net assets	**34.6**	**20.8**	**29.0**	**84.4**	**1,414.5**	**1,498.9**

Sensitivity analysis

Fluctuations in the group's trading currencies against the US dollar would result in a change to profit after tax and net asset value. The table below gives an indication of the impact on profit after tax and net assets of a percentage change in the relative strength of the US dollar against the value of sterling, the Canadian dollar and the euro, simultaneously. The analysis is based on information on net asset positions as at the balance sheet date.

	Impact on profit after tax for the year ended		Impact on net assets	
Change in exchange rate of sterling, Canadian dollar and euro relative to US dollar	2018 $m	2017 $m	2018 $m	2017 $m
Dollar weakens 30% against other currencies	(7.5)	19.6	(11.5)	11.8
Dollar weakens 20% against other currencies	(5.0)	13.0	(7.7)	7.9
Dollar weakens 10% against other currencies	(2.5)	6.5	(3.8)	3.9
Dollar strengthens 10% against other currencies	2.5	(6.5)	3.8	(3.9)
Dollar strengthens 20% against other currencies	5.0	(13.0)	7.7	(7.9)
Dollar strengthens 30% against other currencies	7.5	(19.6)	11.5	(11.8)

b) Interest rate risk

Some of the group's financial instruments, including cash and cash equivalents, certain financial assets at fair value and borrowings, are exposed to movements in market interest rates.

The group manages interest rate risk by primarily investing in short duration financial assets along with cash and cash equivalents. The investment committee monitors the duration of these assets on a regular basis.

The group also entered into bond futures contracts to manage the interest rate risk on bond portfolios.

The following table shows the modified duration at the reporting date of the financial instruments that are exposed to movements in market interest rates. Duration is a commonly used measure of volatility and we believe gives a better indication than maturity of the likely sensitivity of our portfolio to changes in interest rates.

Duration 31 December 2018	<1 yr $m	1-2 yrs $m	2-3 yrs $m	3-4 yrs $m	4-5 yrs $m	5-10 yrs $m	>10 yrs $m	Total $m
Fixed and floating rate debt securities	1,566.0	831.0	963.8	467.4	188.2	83.8	–	4,100.2
Cash and cash equivalents	336.3	–	–	–	–	–	–	336.3
Derivative financial instruments	6.9	–	–	–	–	–	–	6.9
Borrowings	(95.6)	–	–	–	–	(248.7)	–	(344.3)
Total	**1,813.6**	**831.0**	**963.8**	**467.4**	**188.2**	**(164.9)**	**–**	**4,099.1**

C. Risk profile *continued*

C.2 Market risk *continued*

31 December 2017	<1 yr $m	1-2 yrs $m	2-3 yrs $m	3-4 yrs $m	4-5 yrs $m	5-10 yrs $m	>10 yrs $m	Total $m
Fixed and floating rate debt securities	1,447.4	851.7	571.1	366.3	382.0	96.2	–	3,714.7
Cash and cash equivalents	440.5	–	–	–	–	–	–	440.5
Derivative financial instruments	8.8	–	–	–	–	–	–	8.8
Borrowings	–	(99.5)	–	–	–	(248.5)	(18.0)	(366.0)
Total	**1,896.7**	**752.2**	**571.1**	**366.3**	**382.0**	**(152.3)**	**(18.0)**	**3,798.0**

Borrowings consist of two items as at 31 December 2018. The first is $250.0m of subordinated tier 2 debt raised in November 2016. This debt is due in 2026 and has annual interest of 5.875% payable in May and November of each year. The second comprises £75m of sterling denominated 5.375% notes due in 2019 with interest payable in March and September each year.

As at 31 December 2017, borrowings included $18.0m subordinated debt that was due in October 2034 and callable at the group's option since 2009. The group exercised its call option in October 2018. As the debt was recalled in November 2018 it is not included within any of the categories in the 31 December 2018 table (2017: >10 yrs category).

Sensitivity analysis

Changes in yields, with all other variables constant, would result in changes in the capital value of debt securities as well as subsequent interest receipts and payments. This would affect reported profits and net assets as indicated in the table below:

	Impact on profit after tax for the year		Impact on net assets	
	2018 $m	2017 $m	2018 $m	2017 $m
Shift in yield (basis points)				
150 basis point increase	(93.8)	(50.9)	(93.8)	(50.9)
100 basis point increase	(62.6)	(33.9)	(62.6)	(33.9)
50 basis point increase	(31.3)	(17.0)	(31.3)	(17.0)
50 basis point decrease	31.3	17.0	31.3	17.0
100 basis point decrease	62.6	33.9	62.6	33.9

c) Price risk

Financial assets and derivatives that are recognised in the statement of financial position at their fair value are susceptible to losses due to adverse changes in prices. This is referred to as price risk.

Financial assets include fixed and floating rate debt securities, hedge funds, illiquid credit assets, equity investments and derivative financial assets. The price of debt securities is affected by interest rate risk, as described above, and also by issuer's credit risk. The sensitivity to price risk that relates to the group's hedge fund, illiquid credit and equity investments is presented below.

Listed investments that are quoted in an active market are recognised in the statement of financial position at quoted bid price, which is deemed to be approximate exit price. If the market for the investment is not considered to be active, then the group establishes fair value using valuation techniques (refer to note 16 of the Beazley plc Annual report and accounts 2018). This includes comparison of orderly transactions between market participants, reference to current fair value of other investments that are substantially the same, discounted cash flow models and other valuation techniques that are commonly used by market participants.

	Impact on profit after tax for the year		Impact on net assets	
Change in fair value of hedge funds, equity linked funds and illiquid credit assets	2018 $m	2017 $m	2018 $m	2017 $m
30% increase in fair value	163.2	168.6	163.2	168.6
20% increase in fair value	108.8	112.4	108.8	112.4
10% increase in fair value	54.4	56.2	54.4	56.2
10% decrease in fair value	(54.4)	(56.2)	(54.4)	(56.2)
20% decrease in fair value	(108.8)	(112.4)	(108.8)	(112.4)
30% decrease in fair value	(163.2)	(168.6)	(163.2)	(168.6)

C.2 Market risk *continued*

d) Investment risk

The value of our investment portfolio is impacted by interest rate and market price risks, as described above. Managing the group's exposures to these risks is an intrinsic part of our investment strategy.

Beazley uses an Economic Scenario Generator (ESG) to simulate multiple simulations of financial conditions, to support stochastic analysis of market risk. Beazley uses these outputs to assess the Value At Risk (VAR) of its investments, at different confidence levels, including '1 in 200', which reflects Solvency II modelling requirements, and '1 in 10', reflecting scenarios which are more likely to occur in practice. Risk is typically considered to a 12 month horizon. It is assessed for investments in isolation and also in conjunction with the present value of our liabilities, to help us monitor and manage market risk for solvency and capital purposes. By its nature, stochastic modelling does not provide a precise measure of risk, ESG outputs are regularly validated against actual market conditions, and Beazley also uses a number of other, qualitative, measures to support the monitoring and management of investment risk. These include stress testing and scenario analysis.

Beazley's investment strategy is developed by reference to an investment risk budget, set annually by the board as part of the overall risk budgeting framework of the business. The Solvency II internal model is used to monitor compliance with the budget, which limits the amount by which our reported annual investment return may deviate from a predetermined target, at the 1 in 10 confidence level. In 2018, the permitted deviation was $150.0m. Additionally, a limit is specified for the net interest rate sensitivity of assets and liabilities combined and investments are managed to ensure that this limit is not exceeded.

C.3 Credit risk

Credit risk arises where counterparties fail to meet their financial obligations in full as they fall due. The primary sources of credit risk for the group are:

- reinsurers – reinsurers may fail to pay valid claims against a reinsurance contract held by the group;
- brokers and coverholders – counterparties fail to pass on premiums or claims collected or paid on behalf of the group;
- investments – issuer default results in the group losing all or part of the value of a financial instrument or a derivative financial instrument; or
- cash and cash equivalents.

The group's core business is to accept significant insurance risk and the appetite for other risks is low. This protects the group's capital from erosion so that it can meet its insurance liabilities.

The group limits exposure to a single counterparty or a group of counterparties and analyses the geographical locations of exposures when assessing credit risk.

An approval system also exists for all new brokers, and broker performance is carefully monitored. Regular exception reports highlight trading with non-approved brokers, and the group's credit control function frequently assesses the ageing and collectability of debtor balances. Any large, aged items are prioritised and where collection is outsourced incentives are in place to support these priorities.

The investment committee has established comprehensive guidelines for the group's investment managers regarding the type, duration and quality of investments acceptable to the group. The performance of investment managers is regularly reviewed to confirm adherence to these guidelines.

The group has developed processes to formally examine all reinsurers before entering into new business arrangements. New reinsurers are approved by the reinsurance security committee, which also reviews arrangements with all existing reinsurers at least annually. Vulnerable or slow-paying reinsurers are examined more frequently.

To assist in the understanding of credit risks, A.M. Best, Moody's and Standard & Poor's (S&P) ratings are used. These ratings have been categorised below as used for Lloyd's reporting:

	A.M. Best	Moody's	S&P
Tier 1	A++ to A-	Aaa to A3	AAA to A-
Tier 2	B++ to B-	Baa1 to Ba3	BBB+ to BB-
Tier 3	C++ to C-	B1 to Caa	B+ to CCC
Tier 4	D, E, F, S	Ca to C	R, (U,S) 3

C. Risk profile *continued*

C.3 Credit risk *continued*

The following tables summarise the group's concentrations of credit risk:

31 December 2018	Tier 1 $m	Tier 2 $m	Tier 3 $m	Tier 4 $m	Unrated $m	Total $m
Financial assets at fair value						
– fixed and floating rate debt securities	3,041.2	1,059.0	–	–	–	4,100.2
– equity linked funds	–	–	–	–	85.4	85.4
– hedge funds	–	–	–	–	337.2	337.2
– illiquid credit assets	–	–	–	–	186.6	186.6
– derivative financial instruments	–	–	–	–	6.9	6.9
Insurance receivables	–	–	–	–	943.3	943.3
Reinsurance assets	1,192.8	–	–	–	–	1,192.8
Other receivables	58.5	–	–	–	–	58.5
Cash and cash equivalents	336.3	–	–	–	–	336.3
Total	**4,628.8**	**1,059.0**	**-**	**-**	**1,559.4**	**7,247.2**

31 December 2017	Tier 1 $m	Tier 2 $m	Tier 3 $m	Tier 4 $m	Unrated $m	Total $m
Financial assets at fair value						
– fixed and floating rate debt securities	2,840.0	874.7	–	–	–	3,714.7
– equity linked funds	–	–	–	–	168.3	168.3
– hedge funds	–	–	–	–	377.4	377.4
– illiquid credit assets	–	–	–	–	180.4	180.4
– derivative financial instruments	–	–	–	–	8.8	8.8
Insurance receivables	–	–	–	–	918.0	918.0
Reinsurance assets	1,231.1	–	–	–	–	1,231.1
Other receivables	68.6	–	–	–	–	68.6
Cash and cash equivalents	440.5	–	–	–	–	440.5
Total	**4,580.2**	**874.7**	**–**	**–**	**1,652.9**	**7,107.8**

The largest counterparty exposure within tier 1 is $1,106.5m of US Treasuries (2017: $936.7m).

Financial investments falling within the unrated category comprise hedge funds and illiquid credit assets for which there is no readily available market data to allow classification within the respective tiers. Additionally, insurance receivables are classified as unrated, due to premium debtors not being credit rated.

Insurance receivables and other receivables balances held by the group have not been impaired, based on all evidence available, and no impairment provision has been recognised in respect of these assets. Insurance receivables in respect of coverholder business are credit controlled by third-party managers. We monitor third party coverholders' performance and their financial processes through the group's coverholder management team. These assets are individually impaired after considering information such as the occurrence of significant changes in the counterparties' financial position, patterns of historical payment information and disputes with counterparties.

An analysis of the overall credit risk exposure indicates that the group has reinsurance assets that are impaired at the reporting date. The total impairment in respect of the reinsurance assets, including reinsurer's share of outstanding claims, at 31 December 2018 was as follows:

	Individual impairment $m	Collective impairment $m	Total $m
Balance at 1 January 2017	2.4	10.2	12.6
Impairment loss recognised/(written back)	0.5	0.1	0.6
Balance at 31 December 2017	2.9	10.3	13.2
Impairment loss recognised/(written back)	(0.1)	(0.9)	(1.0)
Balance at 31 December 2018	**2.8**	**9.4**	**12.2**

C.3 Credit risk *continued*

The group has insurance receivables and reinsurance assets that are past due at the reporting date. An aged analysis of these is presented below:

31 December 2018	Up to 30 days past due $m	30-60 days past due $m	60-90 days past due $m	Greater than 90 days past due $m	Total $m
Insurance receivables	49.6	13.9	5.3	18.8	87.6
Reinsurance assets	1.0	2.3	0.3	3.4	7.0

31 December 2017	Up to 30 days past due $m	30-60 days past due $m	60-90 days past due $m	Greater than 90 days past due $m	Total $m
Insurance receivables	57.5	13.7	5.3	18.9	95.4
Reinsurance assets	20.4	2.9	0.5	5.2	29.0

The total impairment provision in the statement of financial position in respect of reinsurance assets past due (being reinsurance recoverables due on paid claims) by more than 30 days at 31 December 2018 was $3.1m (2017: $3.1m). This $3.1m provision in respect of overdue reinsurance recoverables is included within the total provision of $12.2m shown in the table above.

The group believes that the unimpaired amounts that are past due more than 30 days are still collectable in full, based on historic payment behaviour and analyses of credit risk.

C.4 Liquidity risk

Liquidity risk arises where cash may not be available to pay obligations when due at a reasonable cost. The group is exposed to daily calls on its available cash resources, principally from claims arising from its insurance business. In the majority of the cases, these claims are settled from the premiums received.

The group's approach is to manage its liquidity position so that it can reasonably survive a significant individual or market loss event (details of the group's exposure to realistic disaster scenarios are provided on page 149 of the Beazley plc Annual report and accounts 2018). This means that the group maintains sufficient liquid assets, or assets that can be converted into liquid assets at short notice and without any significant capital loss, to meet expected cash flow requirements. These liquid funds are regularly monitored using cash flow forecasting to ensure that surplus funds are invested to achieve a higher rate of return. The group also makes use of loan facilities and borrowings, details of which can be found in note 25 of the Beazley plc Annual report and accounts 2018.

The following is an analysis by business segment of the estimated timing of the net cash flows based on the net claims liabilities balance held at 31 December:

31 December 2018	Within 1 year $m	1-3 years $m	3-5 years $m	Greater than 5 years $m	Total $m	Weighted average term to settlement (years)
Marine	116.3	97.3	28.6	21.8	264.0	2.0
Political, accident & contingency	59.5	44.2	12.2	16.8	132.7	2.4
Property	179.9	111.9	29.0	27.0	347.8	1.8
Reinsurance	88.4	71.5	22.8	21.3	204.0	2.2
Specialty lines	431.3	731.2	471.9	506.1	2,140.5	3.5
Net claims liabilities	**875.4**	**1,056.1**	**564.5**	**593.0**	**3,089.0**	

C. Risk profile *continued*

C.4 Liquidity risk *continued*

The following table is an analysis of the net contractual cash flows based on all the liabilities held at 31 December:

31 December 2018	Within 1 year	1-3 years	3-5 years	Greater than 5 years	Total
Net claims liabilities	875.4	1,056.1	564.5	593.0	3,089.0
Borrowings	95.6	–	–	248.7	344.3
Other payables	442.6	–	–	–	442.6

31 December 2017	Within 1 year	1-3 years	3-5 years	Greater than 5 years	Total
Net claims liabilities	911.2	1,016.2	447.0	541.0	2,915.4
Borrowings	–	99.5	–	266.5	366.0
Other payables	512.5	–	–	–	512.5

The group makes additional interest payments for borrowings.

The next two tables summarise the carrying amount at reporting date of financial instruments analysed by maturity date.

Maturity 31 December 2018	<1 yr $m	1-2 yrs $m	2-3 yrs $m	3-4 yrs $m	4-5 yrs $m	5-10 yrs $m	>10 yrs $m	Total $m
Fixed and floating rate debt securities	1,114.0	909.1	1,050.2	516.6	322.1	188.2	–	4,100.2
Derivative financial instruments	6.9	–	–	–	–	–	–	6.9
Cash and cash equivalents	336.3	–	–	–	–	–	–	336.3
Insurance receivables	943.3	–	–	–	–	–	–	943.3
Other receivables	58.5	–	–	–	–	–	–	58.5
Other payables	(442.6)	–	–	–	–	–	–	(442.6)
Borrowings	(95.6)	–	–	–	–	(248.7)	–	(344.3)
Total	**1,920.8**	**909.1**	**1,050.2**	**516.6**	**322.1**	**(60.5)**	**–**	**4,658.3**

31 December 2017	<1 yr $m	1-2 yrs $m	2-3 yrs $m	3-4 yrs $m	4-5 yrs $m	5-10 yrs $m	>10 yrs $m	Total $m
Fixed and floating rate debt securities	926.5	967.1	653.0	511.9	454.3	201.9	–	3,714.7
Derivative financial instruments	8.8	–	–	–	–	–	–	8.8
Cash and cash equivalents	440.5	–	–	–	–	–	–	440.5
Insurance receivables	918.0	–	–	–	–	–	–	918.0
Other receivables	68.6	–	–	–	–	–	–	68.6
Other payables	(512.5)	–	–	–	–	–	–	(512.5)
Borrowings	–	(99.5)	–	–	–	(248.5)	(18.0)	(366.0)
Total	**1,849.9**	**867.6**	**653.0**	**511.9**	**454.3**	**(46.6)**	**(18.0)**	**4,272.1**

C.4 Liquidity risk *continued*

Borrowings consist of two items as at 31 December 2018. The first is $250m of subordinated tier 2 debt raised in November 2016. This debt is due in 2026 and has annual interest of 5.875% payable in May and November of each year. The second comprises a of £75m sterling denominated 5.375% notes due in 2019 with interest payable in March and September each year.

As at 31 December 2017, borrowings included $18.0m subordinated debt that was due in October 2034 and callable at the group's option since 2009. The group exercised its call option in October 2018. As the debt was recalled in November 2018 it is not included within any of the categories in the 31 December 2018 table (2017: >10 yrs category).

Illiquid credit assets, hedge funds and equity funds are not included in the maturity profile because the basis of maturity profile can not be determined with any degree of certainty.

Expected profit in future premiums

The total expected profit in future premiums as at 31 December 2018 was $364.8m.

C.5 Operational risk

Operational risk arises from the risk of losses due to inadequate or failed internal processes, people, systems, service providers or external events.

There are a number of business activities for which the group uses the services of a third-party company, such as investment management, data entry and credit control. These service providers are selected against rigorous criteria and formal service level agreements are in place, and regularly monitored and reviewed.

The group also recognises that it is necessary for people, systems and infrastructure to be available to support its operations. Therefore Beazley has taken significant steps to mitigate the impact of business interruption which could follow a variety of events, including the loss of key individuals and facilities. Beazley operates a formal disaster recovery plan which, in the event of an incident, allows the group to move critical operations to an alternative location within 24 hours.

C. Risk profile *continued*

C.5 Operational risk *continued*

The following scenarios have been reviewed as part of the business continuity testing:

Scenario	Commentary
US, UK, RoW office weather event, supply/utility issue, or short term denial of access	Standing scenarios that are mitigated through health and safety and office closure procedures and technology to support remote working. Regularly tested through invoking plan.
Disaster recovery exercise	• US: Services are moved between the two production data centres four times per year to ensure backup and point-in-time capability meets disaster recovery requirements; and • UK/RoW: Services were successfully brought online in the Dublin recovery data centre in October 2018 as part of the annual disaster recovery exercise to ensure recovery capability meets disaster recovery requirements.
Business continuity exercise	Major weather event on US north east that closed Farmington, Boston, New York, and Philadelphia offices. The scenario was facilitated by an external BCM specialist. In the exercise the Business Continuity Management Team (BCMT) had to: • assess impact and priorities; • manage office closures and communications to affected and non-affected staff; • coordinate with US and UK management; and • monitor provision of IT/remote working platform
Cyber attack exercise	Cyber attack against Beazley resulting in some personal data (e.g. claims) being stolen. The scenario was facilitated by Beazley's breach response specialists with support from one of Beazley's external experts. In the exercise the participants had to: • respond to the immediate incident, coordinate resource, and secure the network; • assess extent, impact, requirements, and obligations around compromised data; and • help to coordinate and support Beazley's follow up with customers and regulators The exercise also included a cyber threat and breach response workshop to educate the participants of current cyber threats and trends and best practice response.

The group actively manages operational risks and minimises them where appropriate. This is achieved by implementing and communicating guidelines to staff and other third parties. The group also regularly monitors the performance of its controls and adherence to these guidelines through the risk management reporting process.

As a member of the Operational Risk Consortium (ORIC), the group has access to a library of operational risk events that have occurred across the industry. We review how Beazley's control environment might respond to these operational risk events and use these scenario tests to update the control environment as appropriate.

Key components of the group's operational control environment include:
- modelling of operational risk exposure and scenario testing;
- management review of activities;
- documentation of policies and procedures;
- preventative and detective controls within key processes;
- contingency planning; and
- other systems controls.

C.6 Other material risks

Strategic risk

This is the risk that the group's strategy is inappropriate or that the group is unable to implement its strategy. Where events supersede the group's strategic plan this is escalated at the earliest opportunity through the group's monitoring tools and governance structure.

Senior management performance

Management stretch is the risk that business growth might result in an insufficient or overly complicated management team structure, thereby undermining accountability and control within the group. As the group expands its worldwide business in the UK, North America, Europe, South America and Asia, management stretch may make the identification, analysis and control of group risks more complex.

On a day-to-day basis, the group's management structure encourages organisational flexibility and adaptability, while ensuring that activities are appropriately coordinated and controlled. By focusing on the needs of their customers and demonstrating both progressive and responsive abilities, staff, management and outsourced service providers are expected to excel in service and quality. Individuals and teams are also expected to transact their activities in an open and transparent way. These behavioural expectations reaffirm low group risk tolerance by aligning interests to ensure that routine activities, projects and other initiatives are implemented to benefit and protect resources of both local business segments and the group as a whole.

Regulatory and legal risk

Regulatory and legal risk is the risk arising from not complying with regulatory and legal requirements. The operations of the group are subject to legal and regulatory requirements within the jurisdictions in which it operates and the group's compliance function is responsible for ensuring that these requirements are adhered to.

Group risk

Group risk occurs where business units fail to consider the impact of their activities on other parts of the group, as well as the risks arising from these activities. There are two main components of group risk which are explained below.

a) Contagion

Contagion risk is the risk arising from actions of one part of the group which could adversely affect any other part of the group. As the two largest components of the group, this is of particular relevance for actions in any of the US operations, which could adversely affect the UK operations, and vice versa. The group has limited appetite for contagion risk and minimises the impact of this occurring by operating with clear lines of communication across the group to ensure all group entities are well informed and working to common goals.

b) Reputation

Reputation risk is the risk of negative publicity as a result of the group's contractual arrangements, customers, products, services and other activities. Key sources of reputation risk include operation of a Lloyd's franchise, interaction with capital markets since the group's IPO during 2002, and reliance upon the Beazley brand in North America, Europe, South America and Asia. The group's preference is to minimise reputation risks but where it is not possible or beneficial to avoid them, to seek to minimise their frequency and severity by management through public relations and communication channels.

C. Risk profile *continued*

C.7 Any other information

Internal model governance

Beazley operates a three lines of defence process throughout the business. As with any other process in Beazley this approach is applied to the internal model. An overview of the three lines of defence for the internal model is set out below.

- first line of defence: capital modelling team with controls including;
  - formal governance through committees;
  - governance through the 'Knowledge Requirements of An internal Model' (KRAM) process; and
  - In team testing process.
- second line of defence: risk management with controls including;
  - control monitoring and reporting.
- third line of defence: internal audit with controls including;
  - conducting annual reviews of the validation framework and process.

The in-team testing includes the following tests:

Type	Model area	Test
Stress testing	Overall	Reverse stress testing to confirm that pre-determined insolvency scenarios are included in the capital setting events in the model.
	Reserve risk	Reserve recognition stress test; Investigates how a hypothetical specialty lines reserve deterioration shock would be recognised over one year.
	Natural catastrophe	Stress test; comparison of net RDS PMLs to modelled losses.
	Natural catastrophe	Stress test to check that outwards reinsurance is modelled correctly for extreme scenarios.
	Non-natural catastrophe	Stress test using country-specific political and terrorism RDS.
	Asset	Stress test – past and future crises; tests for coverage of extreme market events in model.
	Credit	Stress test – future crises; consider reinsurer failure after large cat or specialty lines reserve deterioration and compare recoveries to those modelled.
Scenario testing	Risks (natural catastrophe)	Scenario test – multi-catastrophe scenario. This test checks that the total losses resulting from a multi-catastrophe scenario lies within the overall (all divisions, all perils, all regions) 1-in-200.
	Overall	Scenario testing; list of scenarios proposed with accompanying return periods as viewed by Beazley (review every year, pre-test). Comparison made with return periods implied by the internal model for such events.

Further to the three lines of defence, the fourth element to the internal model governance framework is the independent validation (out of team testing) of the internal model that is performed annually.

Features of Beazley's governance include:

- incorporation into the existing governance structure with clear accountability;
- overlap of members on the various committees;
- the KRAM process i.e. executive and non-executive director training programme for the internal model;
- transparency of internal model limitations;
- internal model control mechanisms; and
- use of external review.

Stress and scenario testing

Purpose

The stress and scenario framework is performed as part of business processes to assist senior management understand the vulnerabilities within the business model. This approach encourages management's involvement in risk oversight by using real life scenarios to provide qualitative and quantitative information on what risks might look like under stressed conditions and encourages a forward looking view of risk.

In addition, as a validation tool the stress and scenario framework:

- tests assumptions, particularly where data is sparse;
- test assumed correlations between assumptions;
- tests the availability of resources and what action might be required under stressed situations;
- tests whether controls perform as expected under stressed situations; and
- considers the effect of changes in the operating environment (e.g. external events).

C.7 Any other information *continued*

Scope

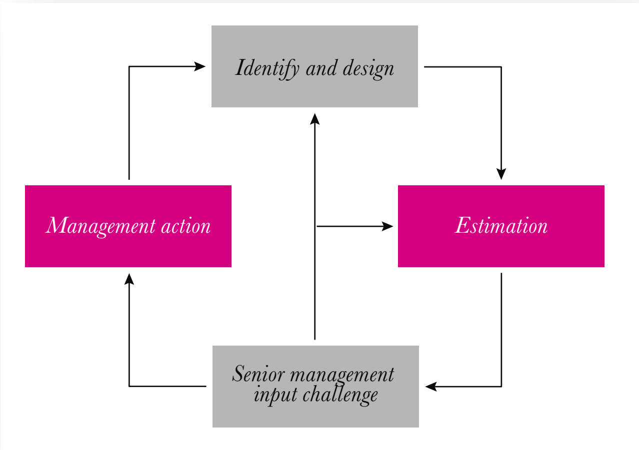
Beazley's stress and scenario framework covers the following three tests:

- stress testing involves looking at the impact on the business model of changing a single factor;
- scenario testing involves the impact on the business model of simulating or changing a series of factors within the operating environment; and
- reverse stress testing involves considering scenarios that are most likely to render the current business model to become unviable.

The framework is outlined in the figure below and consists of a four step process, namely:

1. identify and design;
2. estimation;
3. senior management input and challenge; and
4. management action and feedback loop.

Identify and design (step one)



The risk management team identifies potential assumptions and scenarios for testing within each of the following business processes:

- one year business planning;
- five year business planning;
- risk assessment and risk appetite;
- emerging and strategic risk;
- capital assessment;
- RDSs;
- asset portfolio;
- liquidity risk;
- disaster recovery and business continuity planning; and
- corporate transactions such as acquisitions.

Estimation (step two)

Once scenarios are defined, the risk management team facilitate the estimation of the stress test or scenario. In summary, the following steps are performed:

- identify data and where necessary cleanse or adjust data onto a consistent basis;
- validate data;
- where there is insufficient data apply expert judgement and document this in line with the expert judgement policy;
- run the stress test or scenario test and quantify impact;
- review results for reasonableness and validate against available data; and
- iterate this process as required.

Senior management input and challenge (step three)

Following the completion of step two, the risk management team then meet with the relevant executive and non-executive directors (for example risk owners or as set out in the KRAM) and present the analysis performed and associated results for further discussion. This is an important step in the stress and scenario testing process as it:

- helps inform the senior management team at a detailed level of the key sensitivities and vulnerabilities for Beazley; and
- makes uses of the directors' experience to sense test the analysis and results.

It is expected that further iteration is required following discussion which in turn is summarised.

Management action and feedback loop (step four)

The results of the stress test and scenario planning exercises are reported to the relevant first line of defence committees (the underwriting, investment, operations and executive committees) as part of the business process and the second line of defence committee (the risk and regulatory committee) within the ORSA. The ORSA is then reported to the relevant subsidiary board and the Beazley plc board, usually through their risk committees. It is expected that the discussion at these forums will facilitate further management input and challenge and will give rise to management actions which are captured by the minutes and actioned by the relevant individual. Where relevant, this may include informing other business processes of the results of certain tests.

D. Valuation for solvency purposes

Basis of presentation

Beazley plc (Beazley or the group) uses method 1 (as referred to in Article 230 of Directive 2009/138/EC) to calculate group solvency meaning that the solvency returns are based on consolidated data for the group.

Basis of presentation of Beazley plc's 2018 Group Solvency II Balance Sheet

There are three entities in the group structure that retain the profits of the group's underwriting – Beazley Insurance dac (BIdac), Beazley Insurance Company, Inc (BICI) and Beazley Underwriting Limited (BUL) (refer to page 2 of section A.1).

BIdac meets the definition of an EU domiciled insurance undertaking under the Solvency II regulation which requires full consolidation of its Solvency II balance sheet (see below for the basis of preparation) in the group Solvency II balance sheet.

BICI is a non-EEA insurance undertaking and so its Solvency II balance sheet is also consolidated in full in the group Solvency II balance sheet.

The third entity is the group's Lloyd's corporate member BUL which retains any profits from the group capitalised syndicates (syndicates 2623, 3623 and 3622) not reinsured to BIdac. BUL does not meet the definition of an insurance undertaking under Solvency II regulations. The net assets of BUL on a Solvency II basis have therefore been accounted for using the adjusted equity method in the group Solvency II balance sheet and included in the participations line.

During the year, there was a change in the intra-group reinsurance arrangement between syndicate 3623 and Beazley's US admitted insurance company Beazley Insurance Company, Inc (BICI). The 75% quota share cession from BICI to syndicate 3623 for specialty lines business was replaced with a stop loss/excess of loss arrangement. The result of this change is that considerably lower speciality lines premium is reinsured from BICI in to syndicate 3623.

BIdac reinsures BUL, providing aggregate excess of loss cover for syndicates 2623 and 3623. During 2018, the terms of this aggregate excess of loss reinsurance agreement with BUL changed following negotiation between both companies. As part of the negotiation of the contract covering the 2019 underwriting year, a profit retention of $4m was added to the contract and the excess point was increased from £2m to $4m. Over these amounts, BUL cedes 75% of the final declared result of its participation in syndicates 2623 and 3623. In the event that the declared result is a loss, the extent of the reinsurance is limited so the loss cannot exceed 75% of the Funds At Lloyd's (FAL) posted to support the underwriting of syndicates 2623 and 3623. As part of the negotiation of the 2019 contract, the open contracts in respect of the 2016, 2017 and 2018 underwriting years were endorsed so as to also include the same terms.

Basis of presentation of BIdac's 2018 Solvency II Balance Sheet

The Solvency II technical provisions of BIdac have been calculated in line with a literal interpretation of the Solvency II regulation that considers the contract cash flows, particularly in relation to the aggregate excess of loss reinsurance agreement with BUL with effect from year end 2017. The cash flows represent the premium (provided the declared result of BUL is a profit) or claim (in the case of a loss) paid in respect of BUL's declared result, profit commissions arising and the fees for providing capital to support BUL's reinsured underwriting at Lloyd's.

Differences between group statutory and Solvency II Balance Sheets

The table on the next page presents the value of the assets and liabilities on both the statutory and Solvency II consolidated balance sheets of the group. The adjustments between the statutory and Solvency II value are split between reclassification adjustments (presenting the adjustments made to reflect the difference between the statutory and Solvency II consolidation basis) and Solvency II valuation adjustments (presenting adjustments made to reflect the difference between statutory and Solvency II valuation methodology). There are two principal reasons why the total quantum of assets, the value of investments and the quantum of liabilities are so much lower on the group Solvency II balance sheet compared to the statutory balance sheet:

- the syndicates' business not reinsured to BIdac is equity accounted at net asset value on the group Solvency II balance sheet; and
- the gross and reinsurance statutory technical provisions under the reinsurance agreement between BUL and BIdac are replaced with a valuation of the contracted cashflows under the reinsurance agreement.

The details of the presentation and valuation differences between the group IFRS and Solvency II balance sheets are set out below and further discussed in D.1, D.2 and D.3.

Assets	2018 Statutory value $m	2018 Reclassification adjustment $m	2018 Solvency II valuation adjustment $m	2018 Solvency II value $m
Goodwill	62.0	–	(62.0)	–
Deferred acquisition costs	307.4	(294.2)	(13.2)	–
Intangible assets	64.5	(14.8)	(49.7)	–
Deferred tax assets	28.9	(1.9)	(12.7)	14.3
Property, plant & equipment held for own use	4.9	–	(3.3)	1.6
Investments (other than assets held for index-linked and unit-linked contracts):				
Holdings in related undertakings, including participations	–	(66.4)	158.6	92.2
Bonds	3,968.1	(2,157.7)	–	1,810.4
Collective Investments Undertakings	609.1	(506.7)	–	102.4
Derivatives	6.9	(5.9)	–	1.0
Deposits other than cash equivalents	–	7.8	–	7.8
Loans and mortgages	132.1	(127.6)	–	4.5
Reinsurance recoverables	1,192.8	(1,160.6)	159.6	191.8
Insurance and intermediaries receivables	943.3	(762.1)	(150.7)	30.5
Receivables (trade, not insurance)	17.1	33.3	0.1	50.5
Cash and cash equivalents	336.3	(156.6)	–	179.7
Any other assets, not elsewhere shown	60.5	54.9	(10.2)	105.2
Total assets	**7,734.0**	**(5,158.5)**	**16.5**	**2,591.9**
Technical provisions				
Technical provisions – non-life (excluding health)	5,358.3	(4,795.2)	(563.1)	–
Best estimate	–	–	64.1	64.1
Risk margin	–	–	97.3	97.3
Technical provisions – health (similar to non-life)	68.8	(68.8)	–	–
Best estimate	–	–	7.7	7.7
Risk margin	–	–	0.3	0.3
Technical Provisions – life (excluding health and index-linked and unit-linked)	29.1	(29.1)	–	–
Best estimate	–	–	–	–
Risk margin	–	–	–	–
Total technical provisions	**5,456.2**	**(4,893.1)**	**(393.7)**	**169.4**
Liabilities				
Pension benefit obligations	2.4	–	–	2.4
Deferred tax liabilities	9.1	(3.3)	42.3	48.1
Derivatives	12.4	(4.5)	–	7.9
Financial liabilities other than debts owed to credit institutions	95.6	–	1.9	97.5
Subordinated liabilities	248.7	–	0.1	248.8
Reinsurance payables	282.5	(255.4)	(10.0)	17.1
Payables (trade, not insurance)	19.9	26.8	(40.7)	6.0
Any other liabilities, not elsewhere shown	140.2	(29.0)	–	111.2
Total other liabilities, excluding technical provisions	**810.9**	**(265.4)**	**(6.4)**	**539.0**
Excess assets over liabilities	**1,466.9**	**–**	**416.6**	**1,883.5**

D. Valuation for solvency purposes *continued*

D.1 Assets

Goodwill and intangible assets

All goodwill and intangible assets as reported in the statutory balance sheet are valued at nil for Solvency II purposes, with the exception of purchased syndicate capacity which is valued using auction prices for capacity of the syndicate for which capacity has been purchased. The purchased syndicate capacity is held by BUL and is therefore included within the value of the participations line.

Deferred acquisition costs

Deferred acquisition costs comprise brokerage, premium levy and staff related costs of the underwriters acquiring new business and renewing existing contracts. For statutory reporting, the proportion of acquisition costs in respect of unearned premiums is deferred at the reporting date and recognised in a later period when the related premiums are earned. The reclassification adjustment reallocates the proportion of the group statutory, consolidated deferred acquisition costs relating to the Solvency II equity accounted entities into the participations line. The remaining deferred acquisition costs are excluded from the valuation of assets for Solvency II purposes. However, as the future technical provision cashfows from BUL into BIdac are based on profit or loss arising on a statutory basis, there is an underlying economic value attached to deferred acquisition cost arising within the equity accounted entities that contribute to the future distributions.

Deferred tax assets

Solvency II recognition and valuation with respect to deferred taxes is consistent with the statutory balance sheet (IAS 12).

The group has $7.3m of unused tax losses for which a deferred tax asset has not been recognised as losses are not expected to be utilised in the foreseeable future based on the current taxable profit estimates and forecasts of the underlying entity in question.

Property, plant & equipment held for own use

Property, plant and equipment comprise computer equipment and furniture and fitting for own use and are recorded at costs less accumulated depreciation and impaired losses in the statutory balance sheet, which are considered not to be materially different from fair value.

Investments

On the statutory balance sheet, financial assets (other than participations) are valued using a valuation hierarchy that reflects the significance of the inputs used in making the measurements. The fair value hierarchy has the following levels:

- **level 1** – valuations based on quoted prices in active markets for identical instruments. An active market is a market in which transactions for the instrument occur with sufficient frequency and volume on an ongoing basis such that quoted prices reflect prices at which an orderly transaction would take place between market participants at the measurement date. Included within level 1 are bonds, treasury bills of government and government agencies and corporate bonds which are measured based on quoted prices in active markets. Assets are valued using the bid price;
- **level 2** – valuations based on quoted prices in markets that are not active, or based on pricing models for which significant inputs can be corroborated by observable market data (e.g. interest rates, exchange rates). Included within level 2 are government bonds and treasury bills, corporate bonds, equity funds, hedge funds and senior secured loans which are not actively traded; and
- **level 3** – valuations based on inputs that are unobservable or for which there is limited market activity against which to measure fair value.

An active market is a market in which transactions for the instrument occur with sufficient frequency and volume on an ongoing basis such that quoted prices reflect prices at which an orderly transaction would take place between market participants at the measurement date. The reclassification adjustment reallocates the proportion of the group statutory consolidated investments relating to the Solvency II equity accounted entities into the participations line.

D.1 Assets *continued*

Holdings in related undertakings, including participations

Whilst under statutory reporting, all group entities are consolidated, the Solvency II group balance sheet consolidates only the insurance companies and ancillary service companies, with other entities presented as equity accounted participations. Holdings in related undertakings are valued using the adjusted equity method. In particular participations are valued based on the Beazley plc share of the excess of assets over liabilities of the participations, calculated using a Solvency II valuation of assets and liabilities.

The reclassification adjustment column reallocates the proportion of each balance that relates to the equity accounted entities into the participations line.

Loans and mortgages

Loans and mortgages comprise mainly senior secured loans measured at fair value, which form part of the investment assets of Beazley Underwriting Limited and have therefore been reclassified to the participations line of the group Solvency II balance sheet.

Reinsurance recoverables

The statutory balance sheet presents the reinsurer's share of unearned technical provisions and claims outstanding relating to reinsurance of gross business. Syndicate reinsurance assets consolidated within the statutory balance sheet are included in the valuation of participations. These are part of the profit cashflows embedded within the BIdac technical provisions. On a Solvency II basis, this balance presents the net of cash inflows with respect to recoveries on business bound at the reporting date and cash outflows with respect to premiums payable on outwards reinsurance arrangements, and reflects the reinsurance of BICI which is eliminated on consolidation of the statutory balance sheet.

Insurance and intermediaries receivables

Insurance and intermediaries balances are valued at amortised cost in the statutory balance sheet. For BICI, amounts which are not past their due date are reclassified to technical provisions under Solvency II. Amounts which are past their due date are valued at fair value, which is considered not to differ materially from amortised cost. Other insurance receivables are reclassified into the participations line or form part of the BIdac profit valuation.

Receivables (trade, not insurance)

Other receivables comprise mainly of corporation tax recoverable which has been agreed with the tax authorities and balances due from syndicate 623 to the group. The balances are due and are expected to be paid within the next 12 months and are therefore considered to be measured at fair value.

Cash and cash equivalents

On the statutory balance sheet, cash and cash equivalents consist of cash held at bank, cash in hand, deposits held at call with banks, and other short term highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value. These investments have less than three months maturity from the date of acquisition. The Solvency II valuation and recognition of cash and cash equivalents is consistent with that used for the statutory balance sheet except for short term highly liquid investments which are classified within investments. However, cash held in the syndicates and other entities not consolidated under Solvency II are included as part of the valuation of participations.

Any other assets, not elsewhere shown

The reclassification adjustment is a result of the different scope of consolidation. The change in scope of consolidation largely results from syndicates not being insurance entities under Solvency II. Consequently, syndicate net assets are shown as a participation rather than recognised in each component of the balance sheet. Within the assets reclassification the main impact is a reduction in investments and the recognition of an intercompany balance receivable from the syndicates to BIdac included within other assets relating to the reinsurance arrangement.

The Solvency II valuation adjustment to other assets reflects the inclusion of the BIdac balance due from the syndicates as part of the Solvency II technical provision valuation.

D. Valuation for solvency purposes *continued*

D.2 Technical provisions

All amounts $m Solvency II line of business	Undiscounted Net technical provisions ex risk margin	Undiscounted Risk margin	Undiscounted Net technical provisions inc risk margin	Discounted Net technical provisions ex risk margin	Discounted Risk margin	Discounted Net technical provisions inc risk margin
Credit and suretyship insurance	0.6	–	0.6	0.6	–	0.6
General liability insurance	235.9	9.9	245.8	221.6	9.1	230.7
Income protection insurance	7.9	0.4	8.3	7.8	0.3	8.1
MAT insurance	(0.6)	0.1	(0.5)	(0.7)	0.1	(0.6)
Miscellaneous financial loss insurance	(0.1)	–	(0.1)	(0.1)	–	(0.1)
Property insurance	0.5	–	0.5	0.5	–	0.5
Proportional general liability reinsurance	0.2	–	0.2	0.2	–	0.2
Non-proportional casualty reinsurance	(357.3)	90.5	(266.8)	(349.7)	88.0	(261.7)
Non-proportional property reinsurance	(0.3)	0.1	(0.2)	(0.3)	0.1	(0.2)
Total	**(113.2)**	**101.0**	**(12.2)**	**(120.1)**	**97.6**	**(22.5)**

The technical provisions for the group comprise of:

- the BIdac aggregate excess of loss reinsurance protection of BUL (intra-group reinsurance), which is classified as non-proportional casualty reinsurance;
- the non-life insurance and third-party reinsurance business which BIdac commenced writing in 2017. All of the business written to date has been general liability, and is primarily direct insurance business. A small amount of third-party reinsurance has also been written, classified as proportional general liability reinsurance and non-proportional casualty reinsurance. The non-proportional property reinsurance provisions relate to the bound but not incepted treaty business which will be written for the first time in 2019; and
- the net technical provisions for BICI, which are within all of the insurance Solvency II lines of business in the table above.

Given the nature of the underlying business, the approach used to estimate the technical provisions for the intra-group reinsurance business differs from that used for the insurance and third-party reinsurance, and the BICI business.

Intra-group reinsurance

Overview of reinsurance contract

The approach used to estimate the technical provisions is based on the structure and expected cashflows under the reinsurance contracts. BIdac enters into a reinsurance contract with BUL covering a year of account for syndicates 2623 and 3623. The potential cashflows in summary are as follows:

- premium – 75% of any profit distributed by the syndicates reinsured (subject to a $4m excess);
- liability – 75% of any loss made by the syndicates reinsured (subject to a maximum of 75% of the FAL and $4m excess);
- fees – BUL pays BIdac a fee as BIdac provides 75% of FAL for the syndicates covered under the reinsurance contract. The fee payable is 1% of the first £201m of FAL and 3% of the remainder of FAL; and
- profit commission – 15% and is payable by BIdac to BUL on any premiums received under the contract.

Bases, methods and main assumptions used for valuation for solvency purposes

The bases, methods and main assumptions used for valuation for solvency purposes are as follows:

The expected profit/loss of the underlying BUL business reinsured forms the largest component of the technical provisions. The expected profit/loss is the total of the following:

- the view of the profit/loss of each year of account based on held loss ratios and incurred expenses;
- the reserve releases/strengthenings expected between the current view of profitability and when the final syndicate result is declared;
- expected investment income attributable to each year of account;
- expenses expected to be incurred until the year of account closes;
- FAL fees payable from BUL to BIdac; and
- profit commissions payable for each contract forecasting profit.

Whilst the initial view of profitability is assessed at the end of the first calendar year for the business that has been reinsured, the reserve releases/strengthenings and expected future investment income are derived from the assumptions used in the Beazley Long Term Business plan.

The provisions for profit commissions and fees have been calculated in line with the terms of the reinsurance contract.

Allowance has also been made for Events Not In Data (ENID) and a risk margin:

- the events not in data allowance is based on the load included in the underlying syndicates reinsured and this is calculated using the truncated lognormal distribution, as per Lloyd's guidelines; and
- the risk margin is based on the Solvency Capital Requirements (SCR) output from the BIdac internal model – this is projected forward and discounted using yield curves prescribed by European Insurance and Occupational Pensions Authority (EIOPA), with the discounted cost of capital being calculated by multiplying the discounted SCR figures by the prescribed cost of capital rate of 6% and then summing up the resulting discounted cost of capital amounts.

D.2 Technical provisions *continued*

Unincepted business is defined as policies that have not yet incepted, but to which Beazley's insurance entities are legally obliged at the valuation date. The 2019 reinsurance contract between BIdac and BUL which incepts on 1 January 2019 has been included within the technical provisions as it was signed in early December 2018.

The technical provisions estimated have been split between the claims and premium provisions based on whether or not the profit/loss for each reinsurance contract is known at the valuation date – the technical provisions arising for those contracts for which the actual profit is as yet unknown have been allocated to the premium provision, with the provisions for those contracts where the profit/loss has been finalised being included within the claims provision.

Future cash flows are projected using payment patterns, allocated into the required currencies and discounted using the latest available EIOPA yield curves for the relevant currencies.

Key uncertainties

At a macro level, the key areas of downside risk in the estimated profit/loss figures of the underlying BUL business being reinsured are that:

- claims experience in the specialty lines division could be worse than expected because of adverse claim frequency and/or severity or the systemic inadequacy of premium rates; or that;
- catastrophe claims experience is materially worse than expected; and
- investment returns may be materially different to the returns estimated.

Changes in methodology/assumptions since the previous reporting period (BIdac reinsurance of BUL)

The key changes made in approach at this valuation are as follows:

- allowance for ENID – no allowance has been made for such claims in the technical provisions on the BUL business covered by the 2016 BIdac reinsurance contract, given that the final declared result has been made in respect of the business reinsured. As well as this, for the BIdac contract covering the BUL unincepted year of account (i.e. the 2019 year of account at year end 2018), a full underwriting year's allowance for events not in data has been made.

Statutory reserves vs Solvency II technical provisions

The main differences between the statutory and Solvency II technical provisions for the intra-group reinsurance business written in BIdac are as follows:

- the statutory reserves only consider the performance of business earned up to and including the valuation date whereas the Solvency II technical provisions allow for both the earned and unearned portions of the business written;
- within Solvency II technical provisions, there is an explicit allowance for premiums and claims on bound but unincepted contracts which are not recognised within the statutory reserves. As a result, the 2018 reinsurance contract between BIdac and BUL which incepts on 1 January 2019 has been included within the Solvency II technical provisions as it was signed in December 2018;
- the Solvency II technical provisions include an allowance for the expected future investment income on the underlying business being reinsured whereas the statutory reserves do not; and
- the Solvency II technical provisions recognise expected future reserve releases from the 2017, 2018 and 2019 years of account, on the underlying business reinsured up to and including the finalisation of the 2019 reinsurance contract whereas the statutory reserves only recognise reserve releases known as at the valuation date.

The total BIdac statutory reserves are $169.9m on a net of reinsurance basis, and $163.5m of these reserves are for the intra-group reinsurance business. The Solvency II net technical provisions (including the risk margin) for the intra-group reinsurance business amount to $(261.7)m on a discounted basis.

BIdac insurance, third-party reinsurance and BICI business

BIdac began writing non-life insurance and third-party reinsurance business during 2017 and increased the volume of premiums written in 2018. All the policies written in this period were general liability, primarily direct insurance business. A small amount of third party reinsurance has also been written, classified as proportional general liability reinsurance and non-proportional casualty reinsurance. From 2019 BIdac will also start to write non-proportional property reinsurance.

BICI began writing commercial insurance in 2005 and at year end 2018, the majority of the business written was casualty business (including but not limited to directors & officers, errors & omissions and employment practices liability coverages). During 2018 there was a change to the internal reinsurance contract from BICI to 3623 for this casualty business. This resulted in more of this business being retained by BICI.

Bases, methods and main assumptions used for valuation for solvency purposes

The bases, methods and main assumptions used for valuation for solvency purposes are as follows:

The best estimate reserves form the largest component of the technical provisions. The general liability reserves (direct insurance, proportional reinsurance and non-proportional casualty reinsurance) have been set at a level equivalent to that of other similar business written within the group, but given this is new business written by BIdac a temporary loading has also been applied to the 2017 and 2018 years of account. This will continue to be applied until such time as the book reaches an appropriate level of maturity. If the actual experience is unable to support this loading it will be reviewed and updated as necessary. For the 2019 year of account, the general liability business and non-proportional property reinsurance are set at equivalent levels to that of other similar business written within the group.

D. Valuation for solvency purposes *continued*

D.2 Technical provisions *continued*

An assumption is made as to what amount of the total premiums to which Beazley is legally obliged at the balance sheet date have already been written – as only the portion associated with already written business is included within the technical provisions. Earning assumptions are used to allocate between the premium and claims provision. The methodology used to derive earnings patterns assumes that premium is earned uniformly throughout the policy period.

Unincepted business is defined as policies that have not yet incepted, but to which Beazley is legally obliged at the valuation date. For business which has been written by BIdac, the volume of unincepted business is calculated as the premiums from the actual contracts bound as of the valuation date, but due to incept after the valuation date. The unincepted business has resulted in the year end 2018 reinsurance recoverables being negative, reflecting that the outwards reinsurance premiums payable that cover the full subsequent period are allowed for, compared to only the expected recoveries arising from the unincepted gross business. For BICI, the volume of unincepted business is estimated by considering the business written in the month following the valuation date during the previous year.

Provisions for bad debts, future expenses and events not in data are added to the best estimate technical provisions:
- the bad debt component uses reinsurer default probabilities and loss given default percentages from the internal model. The expected reinsurer bad debt is calculated as probability of default x loss given default x exposure x average duration;
- the expense provision includes the future expenses required to run off the legally obliged business as at the valuation date. This is calculated using the historical calendar year expenses and budgeted expenses, provided by the finance team; and
- the load for events not in data is calculated using the truncated lognormal approach, as per Lloyd's guidelines.

A risk margin is also calculated, though a simplified approach has been used for BIdac. The simplified approach utilises the risk margin estimated for syndicates 2623 and 3623 and then applies the ratio of the BIdac net premium to these syndicates net premium to this risk margin figure. For BICI, the risk margin is based on the SCR output from the BICI internal model - this is projected forward and discounted using yield curves prescribed by EIOPA, with the discounted cost of capital being calculated by multiplying the discounted SCR figures by the prescribed cost of capital rate of 6% and then summing up the resulting discounted cost of capital amounts.

Future cashflows are projected using payment patterns, allocated into the required currencies and discounted using the latest available EIOPA yield curves for the relevant currencies.

Key uncertainties

At a macro level, the key area of downside risk is in the reserving assumptions used to derive the best estimate reserves. Claims experience may be worse than expected because of adverse claim frequency and/or severity or the systemic inadequacy of premium rates. Additionally, for the BIdac business, the lack of actual claims development history means that an approximation of the expected performance of this business has had to be used.

Statutory reserves vs Solvency II technical provisions

The main differences between the statutory and Solvency II technical provisions are as follows:

There are items within the statutory reserves that are not included under Solvency II and thus lead to a reduction in the Solvency II technical provisions. This reduction includes:
- accelerating the recognition of profit with the unearned premium reserve; and
- a reclassification of premium debtors to Solvency II technical provisions to recognise future premium cashflows.

Solvency II technical provisions are calculated on a best estimate basis and so the margin included in the statutory reserves is excluded; and

Within Solvency II technical provisions, there is an explicit allowance for premiums and claims on bound but unincepted contracts which are not recognised within the statutory reserves.

The total BIdac statutory reserves are $169.9m on a net of reinsurance basis, and $6.4m of these reserves are for insurance and third-party reinsurance business. The Solvency II net technical provisions (including the risk margin) for the insurance and third-party reinsurance business amount to $8.4m on a discounted basis. The main reason for the increase in the reserves on a Solvency II basis relative to a statutory basis is driven by the treatment of outwards reinsurance. On a Solvency II basis, the technical provisions make allowance for the outwards reinsurance premiums payable that cover the full subsequent period but only allow for the expected recoveries arising from the business written to date together with the bound but not incepted business.

The total BICI statutory reserves are $377.1m on a net of reinsurance basis. The Solvency II net technical provisions (including the risk margin) amount $230.9m on a discounted basis.

D.2 Technical provisions *continued*

Other items

The matching adjustment referred to in Article 77b of Directive 2009/138/EC is not applied.

The volatility adjustment referred to in Article 77d of Directive 2009/138/EC is not used.

The transitional risk-free interest rate-term structure referred to Article 308c of Directive 2009/138/EC is not applied

The transitional deduction referred to in Article 308d of Directive 2009/138/EC is not applied.

D.3 Other liabilities

Pension obligations

The group operates a defined benefit pension plan for its employees that is now closed to future service accruals. The net pension obligation is measured at the present value of the estimated future net cash flows and is stated net of plan assets in accordance with IAS 19. The same valuation basis has been applied to both the statutory and Solvency II balance sheet.

The assets of the scheme are held separately from those of the group, being invested with external investment managers to meet the long term pension liabilities of past and present members.

Plan assets are comprised as follows:

	2018 $m	2017 $m
Equities	44.4	34.5
Bonds	–	8.6
UCITS funds	–	7.1
Cash	0.2	3.4
	44.6	53.6

Deferred tax liabilities

Solvency II recognition and valuation with respect to deferred taxes is consistent with the statutory balance sheet (IAS 12). As a result of the adjustments from the statutory basis to the Solvency II basis, an increase in Solvency II net assets is generated for the group and hence a deferred tax liability is recognised on a Solvency II basis. This deferred tax liability is not offset against the deferred tax asset as they relate to entities subject to different tax jurisdictions within the group.

Derivatives

Derivatives are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently remeasured at their fair value. Fair values are obtained from quoted market prices in active markets, recent market transactions, and valuation techniques which include discounted cash flow models. All derivatives are carried as assets when fair value is positive and as liabilities when fair value is negative.

Financial liabilities other than debts owed to credit institutions

This balance presents financial liabilities other than subordinated liabilities (see below). This comprises retail debt which is listed on the London Stock Exchange. The difference in Solvency II valuation is because the retail bond is measured in the financial statements at fair value at date of issue less transaction costs whereas the retail bond is measured at fair value based on quoted market prices under Solvency II.

Subordinated liabilities

The subordinated liabilities of the group amount to $248.8m which relates to notes issued in November 2016 at a fixed rate of 5.875% and repayable in 2026. The difference in Solvency II valuation is because the subordinated liabilities are measured in the Beazley plc Annual report and accounts 2018, at fair value at date of issue less transaction costs whereas they are measured at fair value based on quoted market prices under Solvency II.

Reinsurance payables

Reinsurance payables are measured at amounts due on the outwards reinsurance operations of the group, which are due within one year. The amounts as shown on the statutory balance sheet are therefore considered to be fair value.

Adjustments have been made to reclass not past due amounts to Solvency II technical provisions.

Payables (trade, not insurance)

Payables comprise mainly amounts payable to related group entities and external bodies. The amounts are due and are expected to be paid within the next 12 months and are considered to be held at fair value under Solvency II.

Any other liabilities, not elsewhere shown

Any other liabilities comprise mainly accrued expenses including staff bonuses. The amounts are due and are expected to be paid within the next 12 months and are considered to be held at fair value under Solvency II.

D.4 Alternative methods for valuation

The valuation hierarchy for investments is discussed in section D.1 above. An alternative method of valuation has been adopted for the level 3 financial assets where observable inputs are not available. Refer to note 16 (financial assets and liabilities) of the Beazley plc Annual report and accounts 2018 for further details.

D.5 Any other information

There are no material differences in the valuation bases, methods and assumptions between the group Solvency II balance sheet and the solo Solvency II balance sheet.

Lease arrangements

The operating lease arrangements relate to land and buildings. Further information is provided in section A.4.

E. Capital management

E.1 Own funds

Beazley plc (Beazley or the group) has a number of requirements for capital at a group and subsidiary level. Capital is primarily required to support underwriting at Lloyd's and in the US and is subject to prudential regulation by local regulators (PRA, Lloyd's, CBI, and the US state level supervisors). Beazley is subject to the capital adequacy requirements of the European Union Solvency II regime. Beazley has maintained sufficient own funds to meet its solo and group Solvency Capital Requirement (SCR) throughout the year.

Further capital requirements come from rating agencies who provide ratings for Beazley Insurance Company, Inc. (BICI) and Beazley Insurance dac (BIdac). Beazley aims to manage its capital levels to obtain the ratings necessary to trade with its preferred client base.

The amount of surplus capital held is considered on an ongoing basis in light of the current regulatory framework and opportunities for organic or acquisitive growth and a desire to maximise returns for investors. The board's strategy is to grow the dividend by between 5% and 10% per year.

Beazley has a five year plan, the purpose of which is to review long term profitability, return on capital and capital adequacy thereby helping to plan its management of underwriting, claims, capital and expenses. The group follows a risk-based approach to determine the amount of capital required to support its activities. Recognised stochastic modelling techniques are used to measure risk exposures, and capital to support business activities is allocated according to risk profile. Stress and scenario analysis is regularly performed and the results are documented and reconciled to the board's risk appetite where necessary.

The group actively seeks to manage its capital structure. The preferred use of capital is to deploy it on opportunities to underwrite profitably. However, there may be times in the cycle when the group will generate excess capital and not have the opportunity to deploy it. At such points in time the board will consider returning capital to shareholders.

The following table sets out the group's sources of funds on a Solvency II basis:

	Total $m	Tier 1 $m	Tier 2 $m
Basic own funds			
Ordinary share capital	38.0	38.0	–
Reconciliation reserve	1,412.5	1,412.5	–
Share premium	1.6	1.6	–
Subordinated liabilities	248.8	–	248.8
Total basic own fund after deductions[1]	**1,700.9**	**1,452.1**	**248.8**
Ancillary own funds	225.0	–	225.0
Total available own funds to meet the group SCR	**1,925.9**	**1,452.1**	**473.8**
Total eligible own funds to meet the consolidated group SCR	**1,925.9**	**1,452.1**	**473.8**
Total eligible own funds to meet the consolidated group MCR	**1,499.8**	**1,452.1**	**47.7**[2]
Consolidated Group SCR	**954.4**		
Ratio of Eligible own funds to the consolidated Group SCR	**202%**		

1 Deductions are presented in the reconciliation reserve below.

2 Tier 2 eligible own funds to meet the consolidated group MCR are capped at 20% of the MCR.

Group own funds have been calculated net of any intra-group transactions.

Tier 1 basic own funds

	2018 $m	2017 $m
Ordinary share capital	38.0	37.8
Share premium	1.6	–
Reconciliation reserve	1,412.5	1,508.7
	1,452.1	**1,546.5**

Tier 1 own funds are eligible in full to meet both the Solvency Capital Requirement (SCR) and Minimum Capital Requirement (MCR).

The reconciliation reserve is calculated as follows:

	2018 $m	2017 $m
Reconciliation reserve		
Excess of assets over liabilities	1,883.5	1,838.7
Foreseeable dividends	(52.9)	(53.7)
Ordinary share capital and share premium	(39.6)	(37.8)
Deferred tax asset	(14.3)	(3.6)
Other non-available own funds	(364.2)	(234.9)
	1,412.5	**1,508.7**

E.1 Own funds *continued*

Other non-available own funds are explained under the Tier 2 ancillary own funds section below.

Tier 2 basic own funds

	2018 $m	2017 $m
Long term subordinated debt (2034)	–	18.0
Tier 2 subordinated debt (2026) – issued in 2016	248.8	265.4
	248.8	**283.4**

In 2016 Beazley Group Limited repaid £76.5m of existing tier 2 subordinated debt at the first call date and BIdac issued $250m of new tier 2 subordinated debt due 2026, the net proceeds of which are to be used along with retained earnings to support the future growth plans of the group. The movement in the valuation is due to changes in fair values based on quoted market price.

The $18m long term subordinated debt (2034) was included as tier 2 in accordance with the transitional arrangements referred to in Articles 308b(9) and 308b(10) of Directive 2009/138/EC. These transitional arrangements allow items which would otherwise not be eligible funds under Solvency II to be treated as such for up to ten years, if they were eligible under previous solvency rules. These subordinated notes are due in 2034 and have been callable at the group's option since 2009. They were called up in 2018.

Tier 2 ancillary own funds

	2018 $m	2017 $m
Credit facility	**225.0**	**222.0**

Beazley has a $225m Multicurrency Standby Letter of Credit and Revolving Credit Facility Agreement (the credit facility). The CBI has approved its inclusion as ancillary own funds and the method used to determine the eligible amount. This approval was received on 21 December 2017 and is valid until 25 July 2019. We are discussing a renewal with our syndicate of banks.

The credit facility allows letters of credit to be issued in favour of the Society of Lloyd's. Such a letter of credit is permissible as an asset supporting Funds At Lloyd's (FAL) requirements for Lloyd's Corporate Members.

The FAL to support the underwriting of Beazley Underwriting Limited (BUL) on syndicates 2623 and 3623 is provided by BIdac. These funds are subject to a deed of charge in favour of Lloyd's. The deed of charge restricts the transferability of these assets. For this reason, the FAL may only be included in the calculation of group solvency up to the contribution of BIdac to the group Solvency Capital Requirement (SCR).

If the BIDAC contribution to the group SCR exceeds the FAL, no restriction is applicable. However, if the BIdac contribution to the group SCR is lower than the FAL, then the basic own funds at a group level are reduced by the amount by which the FAL exceeds the BIdac SCR contribution. In order to compensate for this restriction, the ancillary own funds is recognised subject to the following limits of the credit facility:

- letter of credit outstandings shall not at any time exceed 35% of the value of FAL; and
- the limit of the credit facility of $225m.

The table below presents the FAL, BIdac contribution to group SCR, the restriction to FAL and the corresponding ancillary own funds recognised.

	2018 $m	2017 $m
FAL provided by BIdac	995.9	856.1
BIdac contribution to group SCR	631.7	621.2
Excess FAL restriction	364.2	234.9
Ancillary own funds recognised	**225.0**	**222.0**[1]

1 Letter of credit outstandings shall not at any time exceed 35% of the value of FAL provided by BIdac. This means that for a fixed FAL requirement, where amounts are being relied upon for the credit facility, the amount being provided by BIdac correspondingly decreases. Therefore, the amount of FAL that can be provided by the credit facility decreases. The calculation to get to the final answer of this iterative process is to multiply FAL by 35/135 to get the maximum proportion that can be met by the letter of credit without breaching the limit governed by the amount of FAL provided by BIdac.

The FAL required to be provided has increased due to the natural catastrophes experienced in the second half of the year. This has led to an increase in the excess FAL restriction and, as a result, the ancillary own funds recognised have increased.

Usage of the facility has the effect of substituting tier 2 ancillary own funds into tier 1, as the amount of FAL provided by BIDAC subject to the restriction is replaced with a letter of credit.

The credit facility agreement is between Beazley companies and Commerzbank Aktiengesellschaft, Filiale Luxemburg, Lloyds Bank plc and The Royal Bank of Scotland plc as mandated lead arrangers of the credit facility, Lloyds Bank plc as bookrunner and as agent for the finance parties and the following Financial Institutions; Lloyds Bank plc, Commerzbank Aktiengesellschaft, Filiale Luxemburg, National Westminster Bank Plc, National Australia Bank Limited and The Bank of Nova Scotia London Branch.

As at 31 December 2018, the basic and ancillary tier 2 own funds were eligible in full to meet the SCR. $47.7m (2017: $44.6m) was eligible to meet the MCR, being 20% of the MCR as at that date.

E. Capital management *continued*

E.1 Own funds *continued*

Reconciliation of statutory net assets to Solvency II net assets

The table below presents the changes in net assets from the statutory balance sheet to the Solvency II balance sheet.

	$m
Statutory net assets	**1,466.9**
Elimination of goodwill, DAC and intangible assets	(124.9)
Elimination of leasehold improvements	(3.3)
Revaluation of subordinated debt and other financial liabilities to market value	(2.0)
Elimination of statutory technical provisions (net of reinsurance and deferred acquisition costs)	530.8
Elimination of inter-group debtors relating to future technical cashflows	(100.0)
Elimination of insurance debtors relating to future technical cashflows	(16.6)
Replacement of Solvency II technical provisions	22.4
Revaluation of participation balances	158.6
Recognition of profit commission on Solvency II adjustments arising	6.6
Recognition of net deferred tax on Solvency II adjustments arising	(55.0)
Solvency II net assets	**1,883.5**

Restriction to the fungibility and transferability of own funds

BIdac's provision of 100% of the FAL and the restriction in relation to the FAL capital commitment relative to BIdac's contribution to the group SCR has been described within the tier 2 ancillary own funds section above.

There is no further restriction applied to the fungibility of the group own funds in light of the Lloyd's ECR being greater than BIdac's contribution to the group SCR. In the current group structure, with Beazley's business being written in or reinsured almost entirely to the syndicates (2623 and 3623), BIdac's capital is available to post as FAL for the purpose of supporting the underwriting activity of the group.

There are approximately $5.0m (2017: $5.2m) of assets held by BICI that are pledged to nine different states as statutory security deposits. Given that this amount is lower than the contribution of the US business to the group SCR, no deduction for non-available own funds at group level is required.

E.2 SCR and MCR

The SCR and MCR for Beazley group are as follows:

	2018 $m	2017 $m
Solvency Capital Requirement	954.4	892.6
Minimum Capital Requirement	238.6	223.2

The SCR is subject to CBI review.

The MCR is calculated based on net of reinsurance technical provisions at the year end and written premiums in the twelve months to that date.

Beazley uses an internal model to calculate its SCR. Beazley's application to use an internal model was approved by the CBI on 10 December 2015. The model is designed to produce output on the required basis, namely the capital required to meet a 1 in 200 adverse loss on the Solvency II balance sheet over a one-year time horizon.

The table below shows the SCR split by risk category.

Model	Insurance risk	Market risk	Operational risk	Credit risk
2019 SCR	**73%**	**14%**	**11%**	**2%**
2018 SCR	77%	13%	8%	2%

Use of the internal model

Beazley's internal model is regularly used in a number of management processes as well as to input into a range of ad-hoc analysis that is presented to the business to support decision making e.g. reinsurance analysis.

Regular uses include:

- capital setting: the internal model is used to calculate the capital for each entity quarterly. The calculated capital is split by major risk i.e. insurance, market, credit, liquidity, operational and group risk;
- business planning including capital allocation: the internal model is used in the business planning process to allocate capital between;
- business planning: portfolio optimisation;
- business planning: reinsurance and Special Purpose Arrangement review;
- long term plan: the capital projections and stress scenarios in the long term plan are developed using internal model output;
- reserving: the internal model is used to allow the actuarial team to develop the reserve strength indicators which are used to communicate the level of prudence in the reserves;
- exposure management: the catastrophe model component of the internal model is used to monitor the team's catastrophe risk against appetite and natural catastrophe risk model output is used for capital modelling;
- investment management: the asset risk component of the internal model is used to monitor investment risk and investment risk output is used for capital modelling;
- reinsurance credit risk: credit risk output is used for capital modelling;
- ORSA: 1-in-10 output is used to calculate KRIs to determine whether the syndicates are operating within risk appetite; and
- remuneration: the internal model is used to test the consistency of underwriters' profit related pay targets.

E.2 SCR and MCR *continued*

Scope of the internal model

The scope of the internal model includes all material risks faced by the Beazley plc. A single internal model is used to calculate the SCR for all entities. No important risks are excluded from the internal model. The material risks currently included in the internal model are:

- premium risk;
- catastrophe risk (both natural and man-made);
- reserving risk;
- market (or asset) risk;
- operational risk (including regulatory and legal risk);
- credit risk;
- group risk; and
- liquidity risk.

The internal model generating the Beazley plc SCR includes business written and reinsured by BIdac and BICI, as well as the syndicate exposure supported by BUL.

Methods used in the internal model

The internal model estimates the probability distribution forecast using a structured quantitative process that makes use of methods that are: in line with good actuarial and statistical practice; subject to regular independent challenge; and appropriate to the analysis and risk profile in question. These methods use parameters that are estimated using all relevant internally available data; appropriate externally sourced industry data; data embedded in external models that have been prepared by experts; judgements based on appropriately qualified and challenged experts, and distributions which are statistically consistent with the historic data relating to the frequency and severity of loss.

Beazley uses a full internal model to calculate the SCR. The SCR is calculated by the internal model in accordance with the specifications of Article 101 of Directive 2009/138/EC; specifically that it is taken from the 99.5th percentile value at risk over a 1-year time horizon, taken directly from the probability distribution output generated by the calculation kernel and covers insurance (underwriting and reserving), asset (market), credit, and operational and group risk.

Data used in the internal model

Model inputs are made up of two key components:

- inputs to model stand-alone risk which requires:
  - exposure data. For example the number of policies of a given size and type; and
  - risk assumptions. For example setting out the range of claim sizes for a given policy. These assumptions are based on relevant historic experience.
- input to aggregate the risk:
  - risk is aggregated using a 'risk drivers' approach where the assumptions are set based on historic experience for each driver.

On-going appropriateness is ensured through the capital teams' in-team testing process which includes:

- quarterly internal model data input testing which includes a reconciliation of key data items; and
- annual data quality testing which includes testing of data quality standards (materiality, accuracy, completeness and appropriateness) for the internal model inputs.

Diversification

Diversification effects are allowed for in the internal model. The dependency and risk driver framework ensures that all possible drivers of risk for inclusion in the internal model are considered during the annual risk driver and dependency review to ensure completeness and which considers:

- the key variables driving dependencies;
- evidence for the existence of diversification effects;
- the relevant assumptions underlying the modelling of dependencies;
- extreme scenarios and tail dependence; and
- the core model produces management information that shows diversification benefits between major risk category (e.g. premium risk, reserve risk, market risk, credit risk etc) as well as between business units. Because of the proportional nature of BIdac's economic interest in syndicates 2623, 3622 and 3623, there are no material additional sources of diversification at a group level.

E.3 Use of the duration-based equity risk-submodule in the calculation of the Solvency Capital Requirement

Not applicable.

E.4 Differences between the standard formula and any internal model

The internal model uses a modular structure comprising a number of free-standing modules each addressing a risk category within scope of the internal model (see section E.2 – scope). A distribution is generated from each module. The modules are aggregated using a 'risk drivers' approach in an overall module that calculates model output. Given the risk profile of Beazley (roughly an equal split of medium-tailed and short-tailed exposures) the most important risk driver is the market cycle which impacts all classes of business and all underwriting years. Driver variables for some risk modules are based upon the output results from other modules. For example, in the credit risk module, the probability of default for reinsurers is increased when the size of the modelled catastrophe exceeds a defined level.

E. Capital management *continued*

E.4 Differences between the standard formula and any internal model *continued*

The main differences in the methodologies and underlying assumptions used in the standard formula (SF) and in the internal model (IM) by risk module are as follows:

- greater premium & reserve risk is assumed for the IM reflecting the underlying economic risks while the SF assumptions are applied to the premiums and technical provisions;
- catastrophe risk assumptions are lower in the IM reflecting the detailed modelling of the portfolio;
- IM market risk is greater than the SF due to greater interest rate and credit spread risk assumptions as well as making allowance for the full economic risk within the underlying asset portfolio;
- greater credit and operational risk is assumed for the IM than for the SF;
- the IM includes less dependency between risk categories than that assumed in the standard formula with the driver of risk assumptions reflecting the risk profile; and
- IM explicitly includes profit offsetting the risk.

The risks covered in the internal model are in line with those covered in the SF; however some risks, for example court inflation, are explicitly rather than implicitly modelled.

The internal model used to calculate the Beazley plc SCR is the same as the internal model used to calculate the BIdac SCR. Where balance sheet items are only included in the Beazley plc balance sheet, null exposure is included in the BIdac SCR. Similarly items on the BIdac balance sheet that consolidate at the group level are also included in the Beazley plc internal model with null exposure.

E.5 Non-compliance with the MCR and non-compliance with the SCR

There have been no material changes or instances of non-compliance with the SCR or MCR over the reporting period, nor is there a foreseeable risk of non-compliance which is considered in the ORSA report where a confirmation statement of continued compliance (for regulatory capital requirements and regulatory requirements for technical provisions) is made.

E.6 Any other information

There is no other material information to report.

Appendix: Quantitative reporting

The following quantitative reporting templates are appended to this report.

S.02.01.02 – Balance sheet
S.05.01.02 – Premiums, claims and expenses by line of business
S.05.02.01 – Premiums, claims and expenses by country
S.23.01.22 – Own funds
S.25.03.22 – Solvency Capital Requirement calculated using a full internal model
S.32.01.22 – Undertakings in the scope of the group

All monetary amounts are in thousands of US dollars. Please note that totals may differ from the sum of component parts due to rounding. For improved presentation, blank columns in some of the quantitative reporting templates have been omitted. All items disclosed are consistent with the quantitative reporting submitted privately to the Central Bank of Ireland.

Appendix: Quantitative reporting *continued*

S.02.01.02 – Balance sheet

		Solvency II value
		C0010
Assets		
Intangible assets	R0030	0
Deferred tax assets	R0040	14,304
Pension benefit surplus	R0050	0
Property, plant & equipment held for own use	R0060	1,551
Investments (other than assets held for index-linked and unit-linked contracts)	**R0070**	**2,013,729**
Property (other than for own use)	R0080	0
Holdings in related undertakings, including participations	R0090	92,158
Equities	*R0100*	*0*
Equities – listed	R0110	0
Equities – unlisted	R0120	0
Bonds	*R0130*	*1,810,379*
Government Bonds	R0140	550,572
Corporate Bonds	R0150	1,259,807
Structured notes	R0160	0
Collateralised securities	R0170	0
Collective Investments Undertakings	R0180	102,440
Derivatives	R0190	972
Deposits other than cash equivalents	R0200	7,780
Other investments	R0210	0
Assets held for index-linked and unit-linked contracts	R0220	0
Loans and mortgages	**R0230**	**4,500**
Loans on policies	R0240	0
Loans and mortgages to individuals	R0250	0
Other loans and mortgages	R0260	4,500
Reinsurance recoverables from:	**R0270**	**191,845**
Non-life and health similar to non-life	R0280	191,845
Non-life excluding health	R0290	191,910
Health similar to non-life	R0300	(65)
Life and health similar to life, excluding health and index-linked and unit-linked	R0310	0
Health similar to life	R0320	0
Life excluding health and index-linked and unit-linked	R0330	0
Life index-linked and unit-linked	R0340	0
Deposits to cedants	R0350	0
Insurance and intermediaries receivables	R0360	30,458
Reinsurance receivables	R0370	0
Receivables (trade, not insurance)	R0380	50,543
Own shares (held directly)	R0390	0
Amounts due in respect of own fund items or initial fund called up but not yet paid in	R0400	0
Cash and cash equivalents	R0410	179,735
Any other assets, not elsewhere shown	R0420	105,277
Total assets	**R0500**	**2,591,942**

S.02.01.02 – Balance sheet *continued*

		Solvency II value
		C0010
Liabilities		
Technical provisions – non-life	**R0510**	**169,425**
Technical provisions – non-life (excluding health)	**R0520**	**161,380**
TP calculated as a whole	R0530	0
Best estimate	R0540	64,050
Risk margin	R0550	97,330
Technical provisions – health (similar to non-life)	**R0560**	**8,045**
TP calculated as a whole	R0570	0
Best estimate	R0580	7,696
Risk margin	R0590	349
TP – life (excluding index-linked and unit-linked)	**R0600**	**0**
Technical provisions – health (similar to life)	**R0610**	**0**
TP calculated as a whole	R0620	0
Best estimate	R0630	0
Risk margin	R0640	0
TP – life (excluding health and index-linked and unit-linked)	**R0650**	**0**
TP calculated as a whole	R0660	0
Best estimate	R0670	0
Risk margin	R0680	0
TP – index-linked and unit-linked	**R0690**	**0**
TP calculated as a whole	R0700	0
Best estimate	R0710	0
Risk margin	R0720	0
Contingent liabilities	R0740	0
Provisions other than technical provisions	R0750	0
Pension benefit obligations	R0760	2,415
Deposits from reinsurers	R0770	0
Deferred tax liabilities	R0780	48,146
Derivatives	R0790	7,886
Debts owed to credit institutions	R0800	0
Debts owed to credit institutions resident domestically	ER0801	0
Debts owed to credit institutions resident in the euro area other than domestic	ER0802	0
Debts owed to credit institutions resident in rest of the world	ER0803	0
Financial liabilities other than debts owed to credit institutions	R0810	97,481
Debts owed to non-credit institutions	ER0811	0
Debts owed to non-credit institutions resident domestically	ER0812	0
Debts owed to non-credit institutions resident in the euro area other than domestic	ER0813	0
Debts owed to non-credit institutions resident in rest of the world	ER0814	0
Other financial liabilities (debt securities issued)	ER0815	0
Insurance & intermediaries payables	R0820	0
Reinsurance payables	R0830	17,085
Payables (trade, not insurance)	R0840	6,039
Subordinated liabilities	**R0850**	**248,818**
Subordinated liabilities not in BOF	R0860	0
Subordinated liabilities in BOF	R0870	248,818
Any other liabilities, not elsewhere shown	R0880	111,196
Total liabilities	**R0900**	**708,491**
Excess of assets over liabilities	**R1000**	**1,883,451**

Appendix: Quantitative reporting *continued*

S.05.01.02 – Premiums, claims and expenses by line of business

		Line of Business for: non-life insurance and reinsurance obligations (direct business and accepted proportional reinsurance)						Line of Business for: accepted non-proportional reinsurance			
		Income protection insurance	Marine, aviation and transport insurance	Fire and other damage to property insurance	General liability insurance	Credit and suretyship insurance	Miscellaneous financial loss	Health	Casualty	Property	Total
		C0020	C0060	C0070	C0080	C0090	C0120	C0130	C0140	C0160	C0200
Premiums written											
Gross – Direct Business	R0110	50,935	286,285	453,313	1,408,452	55,170	48,886				**2,303,041**
Gross – Proportional reinsurance accepted	R0120	0	0	0	28,948	(135)	0				**28,813**
Gross – Non-proportional reinsurance accepted	R0130							28,396	27,033	205,883	**261,312**
Reinsurers' share	R0140	1,969	30,342	58,199	183,627	15,383	4,851	1,353	(354)	70,183	**365,553**
Net	**R0200**	**48,966**	**255,943**	**395,114**	**1,253,773**	**39,652**	**44,035**	**27,043**	**27,387**	**135,700**	**2,227,613**
Premiums earned											
Gross – Direct Business	R0210	39,535	278,908	438,502	1,257,072	48,238	46,186				**2,108,441**
Gross – Proportional reinsurance accepted	R0220	0	0	0	56,105	4,450	0				**60,555**
Gross – Non-proportional reinsurance accepted	R0230							30,412	20,477	205,113	**256,002**
Reinsurers' share	R0240	1,365	28,922	63,104	177,759	14,016	4,692	1,366	(275)	70,984	**361,933**
Net	**R0300**	**38,170**	**249,986**	**375,398**	**1,135,418**	**38,672**	**41,494**	**29,046**	**20,752**	**134,129**	**2,063,065**
Claims incurred											
Gross – Direct Business	R0310	23,918	108,551	327,336	698,015	20,788	22,861				**1,201,469**
Gross – Proportional reinsurance accepted	R0320	0	0	0	27,210	1,202	0				**28,412**
Gross – Non-proportional reinsurance accepted	R0330							14,919	2,417	180,429	**197,765**
Reinsurers' share	R0340	623	(23,728)	37,616	131,982	5,070	830	359	(1,993)	85,036	**235,795**
Net	**R0400**	**23,295**	**132,279**	**289,720**	**593,243**	**16,920**	**22,031**	**14,560**	**4,410**	**95,393**	**1,191,851**
Changes in other technical provisions											
Gross – Direct Business	R0410	0	0	0	0	0	0				0
Gross – Proportional reinsurance accepted	R0420	0	0	0	0	0	0				0
Gross – Non-proportional reinsurance accepted	R0430							0	0	0	0
Reinsurers' share	R0440	0	0	0	0	0	0	0	0	0	0
Net	**R0500**	0	0	0	0	0	0	0	0	0	0
Expenses incurred	**R0550**	**22,990**	**102,984**	**160,805**	**449,604**	**15,740**	**16,751**	**10,122**	**12,795**	**45,280**	**837,071**
Other expenses	**R1200**										
Total expenses	**R1300**										**837,071**

The following columns, which are blank, have been omitted for improved presentation: C0010 Medical expense insurance; C0030 Workers' compensation insurance; C0040 Motor vehicle liability insurance; C0050 Other motor insurance; C0100 Legal expenses insurance; C0110 Assistance; and C0150 Marine, aviation, transport.

S.05.01.02 – Premiums, claims and expenses by line of business *continued*

		Line of Business for: life insurance obligations	Life reinsurance obligations	Total
		Other life insurance	Life reinsurance	
		C0240	C0280	C0300
Premiums written				
Gross	R1410	14,798	7,311	**22,109**
Reinsurers' share	R1420	1,050	189	**1,239**
Net	**R1500**	**13,748**	**7,122**	**20,870**
Premiums earned				
Gross	R1510	15,801	6,837	**22,638**
Reinsurers' share	R1520	957	152	**1,109**
Net	**R1600**	**14,844**	**6,685**	**21,529**
Claims incurred				
Gross	R1610	4,209	7,723	**11,932**
Reinsurers' share	R1620	408	(62)	**346**
Net	**R1700**	**3,801**	**7,785**	**11,586**
Changes in other technical provisions				
Gross	R1710	0	0	**0**
Reinsurers' share	R1720	0	0	**0**
Net	**R1800**	**0**	**0**	**0**
Expenses incurred	**R1900**	**5,571**	**2,061**	**7,632**
Other expenses	**R2500**	0	0	**0**
Total expenses	**R2600**			**7,632**

The following columns, which are blank, have been omitted for improved presentation: C0210 Health insurance; C0220 Insurance with profit participation; C0230 Index-linked and unit-linked insurance; C0250 Annuities stemming from non-life insurance contracts and relating to health insurance obligations; C0260 Annuities stemming from non-life insurance contracts and relating to insurance obligations other than health insurance obligations; and C0270 Health reinsurance.

Appendix: Quantitative reporting *continued*

S.05.02.01 – Premiums, claims and expenses by country

Home country – non-life obligations

		Home country		Total Top 5 and home country
		GB	US	
R0010		C0080	C0090	C0140
Premium written				
Gross – Direct Business	R0110	1,189,826	1,015,132	2,204,958
Gross – Proportional reinsurance accepted	R0120	26,935	1,878	28,813
Gross – Non-proportional reinsurance accepted	R0130	220,942	31,692	252,634
Reinsurers' share	R0140	203,493	131,259	334,752
Net	**R0200**	**1,234,210**	**917,443**	**2,151,653**
Premium earned				
Gross – Direct Business	R0210	1,039,456	868,402	1,907,858
Gross – Proportional reinsurance accepted	R0220	58,918	1,638	60,556
Gross – Non-proportional reinsurance accepted	R0230	193,878	34,182	228,060
Reinsurers' share	R0240	202,395	130,600	332,995
Net	**R0300**	**1,089,857**	**773,622**	**1,863,479**
Claims incurred				
Gross – Direct Business	R0310	546,917	492,369	1,039,286
Gross – Proportional reinsurance accepted	R0320	27,200	1,212	28,412
Gross – Non-proportional reinsurance accepted	R0330	171,537	14,919	186,456
Reinsurers' share	R0340	141,541	76,093	217,634
Net	**R0400**	**604,113**	**432,407**	**1,036,520**
Changes in other technical provisions				
Gross – Direct Business	R0410	0	0	0
Gross – Proportional reinsurance accepted	R0420	0	0	0
Gross – Non-proportional reinsurance accepted	R0430	0	0	0
Reinsurers' share	R0440	0	0	0
Net	**R0500**	**0**	**0**	**0**
Expenses incurred	R0550	434,207	326,723	760,930
Other expenses	R1200			0
Total expenses	**R1300**			**760,930**

S.05.02.01 – Premiums, claims and expenses by country

Life obligations

		Home Country	Total Top 5 and home country
		GB	
R1400		C0220	C0280
Premium written			
Gross	R1410	22,109	22,109
Reinsurers' share	R1420	1,239	1,239
Net	**R1500**	**20,870**	**20,870**
Premium earned		0	0
Gross	R1510	22,638	22,638
Reinsurers' share	R1520	1,109	1,109
Net	**R1600**	**21,529**	**21,529**
Claims paid		0	0
Gross	R1610	11,932	11,932
Reinsurers' share	R1620	346	346
Net	**R1700**	**11,586**	**11,586**
Changes in other technical provisions		**0**	**0**
Gross	R1710	0	0
Reinsurers' share	R1720	0	0
Net	**R1800**	**0**	**0**
Expenses incurred	R1900	7,632	7,632
Other expenses	R2500		0
Total expenses	**R2600**		**7,632**

Appendix: Quantitative reporting *continued*

S.23.01.22 – Own funds

		Total	Tier 1 – unrestricted	Tier 2	Tier 3
		C0010	C0020	C0040	C0050
Basic own funds before deduction for participations in other financial sector					
Ordinary share capital (gross of own shares)	R0010	**37,972**	37,972	0	
Non-available called but not paid in ordinary share capital at group level	R0020	**0**	0	0	
Share premium account related to ordinary share capital	R0030	**1,601**	1,601	0	
Initial funds, members' contributions or the equivalent basic own – fund item for mutual and mutual-type undertakings	R0040	0	0	0	
Subordinated mutual member accounts	R0050	0		0	0
Non-available subordinated mutual member accounts at group level	R0060	0		0	0
Surplus funds	R0070	0	0		
Non-available surplus funds at group level	R0080	0	0		
Preference shares	R0090	0		0	0
Non-available preference shares at group level	R0100	0		0	0
Share premium account related to preference shares	R0110	0			0
Non-available share premium account related to preference shares at group level	R0120	0			0
Reconciliation reserve	R0130	**1,412,469**	1,412,469	0	0
Subordinated liabilities	R0140	**248,818**	0	248,818	0
Non-available subordinated liabilities at group level	R0150	**0**	0	0	0
An amount equal to the value of net deferred tax assets	R0160	**14,304**	0	0	14,304
The amount equal to the value of net deferred tax assets not available at the group level	R0170	**14,304**	0	0	14,304
Other items approved by supervisory authority as basic own funds not specified above	R0180	**0**	0	0	0
Non-available own funds related to other own funds items approved by supervisory authority	R0190	**0**	0	0	0
Minority interests (if not reported as part of a specific own fund item)	R0200	**0**	0	0	0
Non-available minority interests at group level	R0210	**0**	0	0	0
Own funds from the financial statements that should not be represented by the reconciliation reserve and do not meet the criteria to be classified as Solvency II own funds	R0220	**0**			
Deductions					
Deductions for participations in other financial undertakings, including non-regulated undertakings carrying out financial act.	R0230	**0**	0	0	0
Where of deducted according to art 228 of the Directive 2009/138/EC	R0240	**0**	0	0	
Deductions for participations where there is non-availability of information (Article 229)	R0250	**0**	0	0	0
Deduction for participations included by using D&A when a combination of methods is used	R0260	**0**	0	0	0
Total of non-available own fund items	R0270	**14,304**	0	0	14,304
Total deductions	**R0280**	**14,304**	0	0	14,304
Total basic own funds after deductions	**R0290**	**1,700,860**	**1,452,042**	**248,818**	**0**
Ancillary own funds					
Unpaid and uncalled ordinary share capital callable on demand	R0300	0		0	
Unpaid and uncalled initial funds, members' contributions or the equivalent basic own fund item for mutual and mutual type	R0310	0		0	
Unpaid and uncalled preference shares callable on demand	R0320	0		0	0
A legally binding commitment to subscribe and pay for subordinated liabilities on demand	R0330	0		0	0
Letters of credit and guarantees under Article 96(2) of the Directive 2009/138/EC	R0340	0		0	
Letters of credit and guarantees other than under Article 96(2) of the Directive 2009/138/EC	R0350	**225,000**		**225,000**	0
Supplementary members calls under first subparagraph of Article 96(3) of the Directive 2009/138/EC	R0360	0		0	
Supplementary members calls – other than under first subparagraph of Article 96(3) of the Directive 2009/138/EC	R0370	0		0	0
Non-available ancillary own funds at group level	R0380	0		0	0
Other ancillary own funds	R0390	0		0	0
Total ancillary own funds	**R0400**	**225,000**		**225,000**	**0**

S.23.01.22 – Own funds *continued*

		Total	Tier 1 – unrestricted	Tier 2	Tier 3
		C0010	C0020	C0040	C0050
Own funds of other financial sectors					
Credit institutions, investment firms, financial institutions, alternative investment fund managers, UCITS management companies	R0410	0	0	0	
Institutions for occupational retirement provision	R0420	0	0	0	0
Non-regulated entities carrying out financial activities	R0430	0	0	0	
Total own funds of other financial sectors	R0440	0	0	0	0
Own funds when using the D&A, exclusively or in combination of method 1					
Own funds aggregated when using the D&A and combination of method	R0450	0	0	0	0
Own funds aggregated when using the D&A and a combination of method net of IGT	R0460	0	0	0	0
Total available own funds to meet the consolidated group SCR (excluding own funds from other financial sector and from the undertakings included via D&A)	**R0520**	**1,925,860**	**1,452,042**	**473,818**	0
Total available own funds to meet the minimum consolidated group SCR	**R0530**	**1,700,860**	**1,452,042**	**248,818**	
Total eligible own funds to meet the consolidated group SCR (excluding own funds from other financial sector and from the undertakings included via D&A)	**R0560**	**1,925,860**	**1,452,042**	**473,818**	0
Total eligible own funds to meet the minimum consolidated group SCR	**R0570**	**1,499,762**	**1,452,042**	**47,720**	
Minimum consolidated Group SCR	**R0610**	**238,600**			
Ratio of Eligible own funds to Minimum Consolidated Group SCR	**R0650**	**628.57%**			
Total eligible own funds to meet the group SCR (including own funds from other financial sector and from the undertakings included via D&A)	**R0660**	**1,925,860**	1,452,042	473,818	0
Group SCR	**R0680**	**954,402**			
Ratio of Eligible own funds to group SCR including other financial sectors and the undertakings included via D&A	**R0690**	**201.79%**			

		C0060
Reconciliation reserve		
Excess of assets over liabilities	R0700	**1,883,451**
Own shares (held directly and indirectly)	R0710	0
Foreseeable dividends, distributions and charges	R0720	52,935
Other basic own fund items	R0730	**53,877**
Adjustment for restricted own fund items in respect of matching adjustment portfolios and ring fenced funds	R0740	0
Other non-available own funds	R0750	364,170
Reconciliation reserve	**R0760**	**1,412,469**
Expected profits		
Expected profits included in future premiums (EPIFP) – Life Business	R0770	0
Expected profits included in future premiums (EPIFP) – Non-life business	R0780	364,759
Total expected profits included in future premiums (EPIFP)	**R0790**	**364,759**

The following column, which is blank, has been omitted for improved presentation: C0030 Tier 1 restricted.

Appendix: Quantitative reporting *continued*

S.25.03.22 - Solvency Capital Requirement calculated using a full internal model

Unique number of component	Components description	Calculation of the Solvency Capital Requirement
C0010	C0020	C0030
RES01	Reserve risk	671,439
PRM01	Premium risk	701,726
MKT01	Market risk	475,634
OPL01	Operational risk	376,568
CRT01	Credit risk	99,401

Calculation of Solvency Capital Requirement		C0100
Total undiversified components	**R0110**	**2,324,768**
Diversification	R0060	(1,370,366)
Capital requirement for business operated in accordance with Art. 4 of Directive 2003/41/EC	R0160	
Solvency capital requirement excluding capital add-on	**R0200**	**954,402**
Capital add-ons already set	R0210	
Solvency capital requirement	**R0220**	**954,402**
Other information on SCR		
Amount/estimate of the overall loss-absorbing capacity of technical provisions	R0300	0
Amount/estimate of the overall loss-absorbing capacity of deferred taxes	R0310	67,028
Total amount of Notional Solvency Capital Requirements for remaining part	R0410	0
Total amount of Notional Solvency Capital Requirements for ring fenced funds (other than those related to business operated in accordance with Art. 4 of Directive 2003/41/EC (transitional))	R0420	0
Total amount of Notional Solvency Capital Requirement for matching adjustment portfolios	R0430	0
Diversification effects due to RFF nSCR aggregation for article 304	R0440	0
Minimum consolidated group solvency capital requirement	R0470	238.600
Information on other entities		
Capital requirement for other financial sectors (Non-insurance capital requirements)	R0500	0
Capital requirement for other financial sectors (Non-insurance capital requirements) – Credit institutions, investment firms and financial institutions, alternative investment funds managers, UCITS management companies	R0510	0
Capital requirement for other financial sectors (Non-insurance capital requirements) – Institutions for occupational retirement provisions	R0520	0
Capital requirement for other financial sectors (Non-insurance capital requirements) – Capital requirement for non-regulated entities carrying out financial activities	R0530	0
Capital requirement for non-controlled participation requirements	R0540	0
Capital requirement for residual undertakings	R0550	0

S.32.01.22 – Undertakings in the scope of the group

Country	Identification code of the undertaking	Type of code of the ID of the undertaking	Legal Name of the undertaking	Type of undertaking	Legal form	Category (mutual/ non mutual)	Supervisory Authority	% capital share	% Used for the establish-ment	% voting rights	Level of influence	Group SCR	Yes/No	Method of calculation
C0010	C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0180	C0190	C0200	C0220	C0230	C0240	C0260
CA	2138006PPOOELDD88116	LEI	Beazley Canada Limited	Ancillary services undertaking	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
GB	213800XLBHOUAOEK4C56	LEI	Beazley Corporate Member (No.2) Limited	Other	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Adjusted equity
GB	2138008PYM4U3JVY5O29	LEI	Beazley Corporate Member (No.3) Limited	Other	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Adjusted equity
GB	213800VE5OALBYXHTL82	LEI	Beazley Corporate Member (No.6) Limited	Other	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Adjusted equity
GB	213800LRL5PQQ1BNTJ43	LEI	Beazley Furlonge Holdings Limited	Mixed-activity insurance holding company	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
GB	549300FAQP1YKTIM1S87	LEI	Beazley Furlonge Limited	Ancillary services undertaking	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
US	2138007DO9SL7TQBVH27	LEI	Beazley Group (USA) General Partnership	Mixed-activity insurance holding company	Delaware general partnership	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
GB	549300V3F4ZHETMM6P72	LEI	Beazley Group Limited	Mixed-activity insurance holding company	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
US	213800VHYDYMDVQ7PK36	LEI	Beazley Holdings, Inc.	Mixed-activity insurance holding company	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
US	213800OBLNEDLYDMHI69	LEI	Beazley Insurance Company, Inc.	Non-life insurance undertaking	Company limited by shares	Non-mutual	Connecticut Insurance	100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
IE	549300WWULDAFCPEU084	LEI	Beazley Insurance dac	Non-life insurance undertaking	Incorporated company limited by shares	Non-mutual	Central Bank of Ireland	100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
GB	213800ZFFB8FZNACJ862	LEI	Beazley Investments Limited	Other	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Adjusted equity
IE	21380052V9LP6NH9W342	LEI	Beazley Ireland Holdings plc	Insurance holding company	Public limited company	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
IE	213800VTOMUWD41GIT12	LEI	Beazley plc	Insurance holding company	Public limited company	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
GB	213800CUN3D4NUYAT124	LEI	Beazley Leviathan Limited	Ancillary services undertaking	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
HK	213800X2DOFUTRXM1O81	LEI	Beazley Limited	Ancillary services undertaking	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
GB	21380022FM3LXUN3HR40	LEI	Beazley Management Limited	Ancillary services undertaking	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
SG	213800DJFLUB3XE1WM21	LEI	Beazley Pte. Limited	Ancillary services undertaking	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
GB	213800AQFXRGDD861306	LEI	Beazley Solutions Limited	Ancillary services undertaking	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
GB	213800AVDAS3WCGM9K47	LEI	Beazley Staff Underwriting Limited	Other	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Adjusted equity
GB	213800VBCFZ1LXWVAH47	LEI	Beazley Underwriting Limited	Other	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Adjusted equity
AU	213800PYTRLNNDFNFV77	LEI	Beazley Underwriting Pty Ltd	Ancillary services undertaking	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
GB	213800ESHJJFAEPH8T43	LEI	Beazley Underwriting Services Limited	Ancillary services undertaking	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
US	2138003E3J3TT2VVA730	LEI	Beazley USA Services, Inc.	Ancillary services undertaking	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
US	2138002FMQZV2ESD2P39	LEI	Lodestone Securities LLC	Other	Limited liability company	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Adjusted equity
US	21380052V9LP6NH9W342US111	Specific Code	Capson Corp., Inc.	Insurance holding company	Company limited by shares	Non-mutual		31.00%	31.00%	31.00%	Significant	31.00%	Inc. in scope	Method 1: Adjusted equity
MT	213800DWGDOMU52RW804	LEI	Falcon Money Management Holdings Limited	Other	Company limited by shares	Non-mutual		25.00%	25.00%	25.00%	Significant	25.00%	Inc. in scope	Method 1: Adjusted equity
US	BAIC	Specific Code	Beazley America Insurance Company Inc.	Non-life insurance undertaking	Company limited by shares	Non-mutual	Connecticut Insurance	100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation
IE	BSIL	Specific Code	Beazley Solutions International Limited	Ancillary services undertaking	Company limited by shares	Non-mutual		100.00%	100.00%	100.00%	Dominant	100.00%	Inc. in scope	Method 1: Full consolidation

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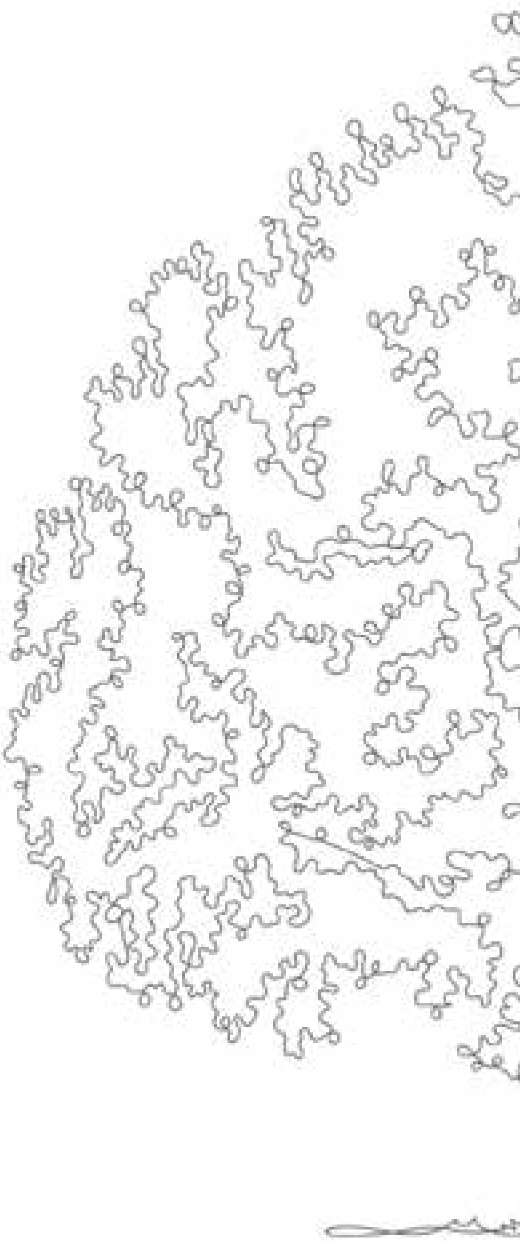

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