



TOKIO MARINE  
KILN

# **Solvency and Financial Condition Report 2016**

Tokio Marine Kiln Insurance Limited

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## 1. Summary

### 1.1 Business and performance summary

Tokio Marine Kiln Insurance Limited (TMKI) was established as a controlling company for the European operations of Tokio Marine & Nichido Fire Insurance Co., Limited (TMNF), with a network of offices and agency representation throughout Europe. On 1 January 2014, ownership of TMKI was passed to Tokio Marine Kiln Group Limited (TMK) as part of the integration within the Kiln Group.

TMKI's principal activity is the underwriting of predominantly short-tailed Japanese-related and local market commercial risks of marine cargo, property and liability insurance business in the London market, across the UK regions, and in Europe through branch offices in Belgium, France, Italy, Germany, Spain, and the Netherlands, and agencies in continental Europe. Central to TMKI's strategy is the insurance of large Japanese corporates, which make up 33% of TMKI's premium income.

TMKI's reputation as a leading commercial insurer has been gained through solid underwriting expertise, financial strength and an excellent security rating. TMKI benefits from being a member of the Tokio Marine Group, one of the largest insurance groups in the world (31 December 2016 net assets of the Tokio Marine Group were 3.4 trillion JPY), which enables it to offer substantial amounts of coverage to selected corporate clients, supported by significant intra-group reinsurance. TMNF provides an irrevocable guarantee, to any holder (each a "Beneficiary") of an insurance policy or reinsurance contract issued by TMKI, of the performance of all the obligations in accordance with the terms and conditions of the insurance policies and reinsurance contracts issued by them; as a consequence TMKI is rated A+ by S&P.

TMK has continued with its plan, which commenced in 2014, to build a single fully-integrated group; in the third quarter 2016 TMK announced the completion of the final stage of its integration by restructuring its underwriting divisions along sector lines. There are four fully integrated underwriting departments with a single reporting line into the Group Chief Underwriting Officer: Property & Casualty; Marine, Aviation & Special Risks; Accident, Health & Life and Reinsurance, which are complemented by a first class claims team and an expert risk engineering service.

TMKI is two years into a 5-year turnaround plan approved in 2015 to reduce the expense ratio and improve profitability, as it is an integral part of TMK's underwriting strategy. TMKI has recently expanded its underwriting capabilities in the UK property owners, liability and US property sectors. In addition, TMKI continues to focus its strategy on the development of its UK and French corporate markets, as well as its core Japanese client base throughout Europe.

TMKI reported a loss after tax of £7.6m in the year ended 31 December 2016, which was driven by a number of large claims on the French and UK property portfolios as well as a fire loss in the Netherlands, exacerbated in the UK by the change to the Ogden discount rate which resulted in a £5.6m loading applied to liability reserves. The result was an improvement on the prior year loss of £25.4m, which was affected by an unprecedented number of large property losses as well as the catastrophe impacts of the Tianjin Explosion and UK Floods.

TMKI's objective is for long term growth and profitability with emphasis being placed on prudent underwriting and risk control, combined with efficient administration and a high standard of service to its customers, a strategy it is confident will lead to sustained effectiveness, competitiveness and financial strength for the foreseeable future.

### 1.2 System of governance summary

TMKI is part of TMK's business which operates on two platforms: a company platform as TMKI and within the Lloyd's market as Tokio Marine Kiln Syndicates Limited (TMKS). Although both TMKI and TMKS are separate regulated entities, TMK's Group board governs the overall business as a single group.

The regulated boards of both TMKI and TMKS have combined board and board committee meetings with common membership. Given that both regulated entities are managed as one, a single Own Risk and Solvency Assessment (ORSA), Governance Map and Terms of Reference are in place.

There is also a group level management team, with departments and functions operating at the TMK level with group heads of department to support both entities. The plan to build TMKI and TMKS into a single fully-integrated group completed in 2016 with the restructuring and combination of the underwriting divisions.

TMK operates a Three Lines of Defence model with the Risk Management, Compliance and Internal Audit Functions providing regular reporting on the effectiveness of TMK's internal control system to management, the regulated and TMK boards and TMK's parent company.

TMK's governance model sets out the boards' key responsibilities and promotes TMK's core values with the overarching aim of adding value and increasing returns to all stakeholders through knowledgeable underwriting of risks and good understanding of clients' requirements, whilst acting with respect and integrity.

TMK is committed to high standards of corporate governance and believes that the board and committee structure supports those requirements and the provision of an adequate flow of information from all the business functions into the committees and ultimately up to the regulated and TMK boards.

### 1.3 Risk profile summary

TMKI's business model remains consistent as specialist underwriters who take a prudent approach to risk management, focusing largely on shorter-tail specialist lines of insurance and reinsurance business where it knows relatively quickly that a loss has occurred, and so is able to make more immediate reliable estimates regarding the extent of the losses to expect.

TMKI's underwrites predominantly short-tailed Japanese-related and local market commercial risks of marine cargo, property and liability insurance business in the London market, across the UK regions, and in Europe through branch offices in Belgium, France, Italy, Germany, Spain, and the Netherlands, and agencies in continental Europe. TMKI also underwrites aviation pool business, which is wholly reinsured with TMNF.

It is TMKI's policy to confine its exposure to risk primarily within its core areas of expertise: the underwriting of specialist insurance and reinsurance risks. This approach means that TMKI is at the cautious end of the spectrum in all areas of financial risk management, such as investment management and reserving. This allows TMKI to protect its capital on the balance sheet and focus its risk appetite on underwriting.

There were no material changes to TMKI's risk profile from 31 December 2015 to 31 December 2016.

### 1.4 Valuation for solvency purposes summary

The majority of asset and liability classes within TMKI's balance sheet are valued identically under both Solvency II and GAAP. The key differences are the valuation of the technical provisions, the reclassification of non-overdue debtor and creditor balances to technical provisions and certain small differences on some fixed asset classes. These differences change the amount of capital held as follows:

Description	31 Dec 2016 £000's
<b>Total equity per GAAP financial statements</b>	<b>124,236</b>
Difference in net technical provisions including DAC	(1,703)
Difference in net (re)insurance debtors and creditors	(22,611)
Difference in other items	(5)
<b>SII Basic Own Funds</b>	<b>99,917</b>

There were no material changes to the valuation methodologies for solvency purposes from 31 December 2015 to 31 December 2016 with the exception of the reclassification of non-overdue debtors and creditors to technical provisions reducing from those less than six months overdue to less than three months overdue.

## 1.5 Capital management summary

The objective of own funds management is to maintain, at all times, sufficient own funds to cover the SCR and MCR such that the solvency ratio (as measured against the SCR and referred to as the regulatory solvency ratio (RSR)) remains within risk appetite. These own funds are to be of sufficient quality to meet the eligibility requirements in Article 82 of the Delegated Regulation. Separate to the RSR risk appetite, the TMKI Board sets a target buffer of own funds to be held above the economic capital requirement (ECR) as determined by the TMKI capital model. A capital update is provided quarterly in which the eligible own funds to cover the target buffer and RSR are reviewed.

As part of own funds management, TMKI prepares ongoing annual solvency projections and reviews the structure of own funds and future requirements. The business plan, which forms the basis of the ORSA, contains a three-year projection of funding requirements and this helps focus actions for future funding. Approval from the Prudential Regulation Authority (PRA) was received in February 2016 for £25m Ancillary Own Funds (AOF) to be held in the form of a letter of credit. In addition, on 30 December 2016, TMKI applied for an additional amount of AOF also to be held in the form of letter of credit which would bring the total amount of AOF held by TMKI from £25m to €70m. Approval was granted for the new letter of credit by the PRA in April 2017.

There were no material changes to the SCR or MCR from 31 December 2015 to 31 December 2016.

## 2. Business and performance

### 2.1 Business

#### 2.1.1 Name and legal form of the Company

Tokio Marine Kiln Insurance Limited (TMKI) is a mid-size, non-life insurer incorporated in England and Wales under the registered number 989421 and operating in the United Kingdom (UK) and six other Continental European countries.

#### 2.1.2 Name and contact details of the supervisory authority responsible for financial supervision of TMKI

TMKI is authorised by the Prudential Regulation Authority (PRA) and regulated by the Financial Conduct Authority (FCA) and the PRA under firm reference number 202574. The contact details for the PRA and the FCA are as follows:

- PRA: 20, Moorgate, London EC2R 6DA
- FCA: 25, The North Colonnade, London E14 5HS

#### 2.1.3 Name and contact details of the external auditors to TMKI

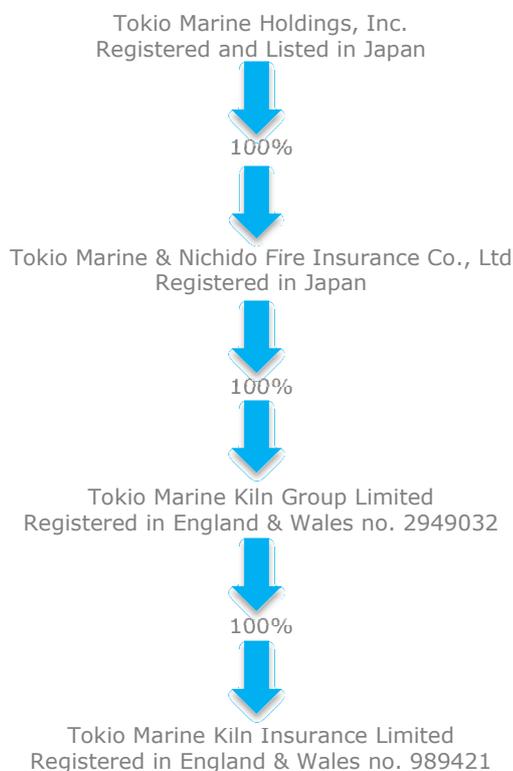
The external auditors are PricewaterhouseCoopers LLP, Chartered Accountants, 7 More London Riverside, London SE1 2RT.

#### 2.1.4 Holders of qualifying holdings in TMKI and its position within the Tokio Marine Group

The ultimate parent company and controlling party is Tokio Marine Holdings, Inc. (TMHD) incorporated in Japan. Copies of the consolidated financial statements of TMHD are available from 1-2-1 Marunouchi, Chiyoda-ku, Tokyo, 100-0005, Japan.

The immediate parent company is Tokio Marine Kiln Group Limited (TMK), which is incorporated and registered in England and Wales. Copies of the consolidated financial statements of TMK are available from 20 Fenchurch Street, London EC3M 3BY.

The schematic below shows TMKI's link to the ultimate holding company, TMHD:



There are no natural persons with direct or indirect holders of qualifying holdings in TMKI.

### **2.1.5 Material lines of business and geographical areas**

TMKI's principal activity is the underwriting of predominantly short-tailed commercial marine cargo, property and liability insurance business in the London market, across the UK regions, and in Europe through branch offices in Belgium, France, Italy, Germany, Spain, and the Netherlands, and agencies in continental Europe. Currently the subject of a 5-year turnaround plan approved in 2015 to reduce the expense ratio and improve profitability, TMKI has recently expanded its underwriting capabilities in the UK property owners, liability and US property sectors.

In addition to underwriting both Japanese-related and local market commercial risks, TMKI also underwrites aviation pool business, which is wholly reinsured with a group company in Japan, Tokio Marine & Nichido Fire Insurance Co., Ltd (TMNF), through which it is able to offer significant A++ (AM Best)-rated capacity to customers. Central to TMKI's strategy is the insurance of large Japanese corporates, which make up 33% of TMKI's premium income.

### **2.1.6 Significant business or other events during the reporting period**

During the reporting period, two significant external events occurred which impacted TMKI. The first was the vote for Britain to exit the European Union (Brexit). The unexpected result to leave the EU had several effects on TMKI; the resultant devaluation of Sterling created a foreign exchange gain with an offsetting increase in Euro denominated liabilities in the balance sheet, additionally falling UK yields meant the company benefitted from increased investment returns. The uncertainty surrounding the implications of the vote, and how the negotiations for the final exit will affect the passporting rights for individuals and businesses within the EU, is expected to continue to impact TMKI's business, at least for the next two years, while the withdrawal agreement is negotiated.

On 27 February 2017, the UK government announced a steeper than expected cut to the discount rate applied to lump-sum personal injury compensation, reducing the rate from 2.5% to -0.75% (the "Ogden discount rate"). The announcement of the change to the Ogden rate was made before the finalisation of TMKI's 2016 financial statements. As a result the level of reserves held by TMKI for UK liability claims was reassessed and had the effect of increasing the net claims ratio by 4 points.

Approval from the PRA was received in February 2016 for £25m Ancillary Own Funds (AOF) to be held in the form of a letter of credit. In addition, on 30 December 2016, TMKI applied for an additional amount of AOF also to be held in the form of letter of credit which would bring the total amount of AOF held by TMKI from £25m to €70m. Approval was granted for the new letter of credit by the PRA in April 2017 so the increase in AOF will not form part of the totals reported at 31 December 2016. The new letter of credit is valid until December 2019.

## 2.2 Underwriting performance

### 2.2.1 Comparison of underwriting performance between 2016 and 2015

The overall summary of TMKI's underwriting performance on a UK GAAP basis is provided in the table below for the years ended 31 December 2016 and 2015.

	2016	2015	Variance
	£'000s	£'000s	%
Gross premiums written	222,930	201,984	10%
Outward reinsurance premiums	(94,076)	(78,140)	20%
Net premiums written	128,854	123,844	4%
<b>Earned premiums, net of reinsurance</b>	<b>127,044</b>	122,131	4%
Claims incurred, net of reinsurance	(86,080)	(104,138)	(17%)
Net acquisition costs	(17,528)	(18,897)	(7%)
Other operating expenses	(40,531)	(35,369)	15%
<b>Underwriting result</b>	<b>(17,095)</b>	(36,273)	(53%)
Equalisation reserve	-	6,449	(100%)
Investment income	3,945	1,239	218%
Foreign exchange gain/(loss)	5,543	(3,508)	(258%)
Other income	1,022	855	20%
<b>Loss before tax</b>	<b>(6,586)</b>	(31,238)	(79%)
Tax	(983)	5,867	(117%)
<b>Loss after tax</b>	<b>(7,569)</b>	(25,371)	(70%)
<i>Net claims ratio</i> <sup>[1]</sup>	<b>67.8%</b>	85.3%	(17.5%)
<i>Net acquisition cost ratio</i> <sup>[2]</sup>	<b>13.8%</b>	15.5%	(1.7%)
<i>Net expense ratio</i> <sup>[3]</sup>	<b>31.9%</b>	29.0%	2.9%
<i>Net combined ratio</i> <sup>[4]</sup>	<b>113.5%</b>	129.7%	(16.2%)

[1] Net Claims Incurred as a percentage of Net Earned Premium

[2] Net Acquisition Costs as a percentage of Net Earned Premium

[3] Other Operating Expenses as a percentage of Net Earned Premium

[4] Underwriting Result as a percentage of Net Earned Premium

In 2016 TMKI reported a loss after tax of £7.6m, a £17.8m improvement on the prior year, primarily as a result of an improvement in underwriting performance. The underwriting loss for the year was £17.1m driven by a number of large losses on the French and UK property portfolios as well as a very large £6.2m net fire loss in the Netherlands which occurred in the last quarter of 2016. The result, is however, an improvement on the prior year underwriting loss of £36.3m where there was an unprecedented number of large property claims as well as the impact of the catastrophes; the Tianjin Port Explosion and the UK Floods.

In addition to the loss experience in 2016, the net claims ratio of 67.8% (2015: 85.3%) has been adversely affected by the change in the Ogden discount rate resulting in a 4 point deterioration in the net claims ratio (£5.6m). This change only affects UK liability reserves and is an early estimate based on prudent assumptions.

In 2016, TMKI benefitted from both significantly improved investment returns of £4.9m (2015: £1.2m) and a substantial foreign exchange gain of £5.5m (2015: loss of £3.5m) which helped to partially offset the underwriting loss.

## 2.2.2 Analysis of underwriting performance by Solvency II Line of Business

The following tables show the TMKI underwriting result broken down by Solvency II class of business:

2016	GWP <sup>[1]</sup>	NEP <sup>[2]</sup>	NIC <sup>[3]</sup>	NAQ <sup>[4]</sup>	Op Exp <sup>[5]</sup>	U/W Result
	£'000s	£'000s	£'000s	£'000s	£'000s	£'000s
Medical Expense	11,794	11,283	(4,058)	(3,038)	(3,431)	756
Marine, Aviation & Transport	67,964	20,773	(11,695)	(817)	(8,234)	27
Fire & other Property Damage	93,868	61,272	(40,321)	(9,736)	(18,569)	(7,354)
General Liability	36,052	22,091	(24,651)	(1,493)	(6,782)	(10,835)
Credit & Suretyship	85	75	-	(9)	-	66
Assistance	2,816	3,762	(2,469)	(938)	(1,144)	(789)
Miscellaneous Financial Loss	4,641	3,097	(1,956)	(649)	(930)	(438)
Non-Proportional Casualty	39	20	(36)	(4)	(38)	(58)
Non-Proportional Property	5,671	4,671	(894)	(844)	(1,403)	1,530
	<b>222,930</b>	<b>127,044</b>	<b>(86,080)</b>	<b>(17,528)</b>	<b>(40,531)</b>	<b>(17,095)</b>

[1] Gross Written Premium ('GWP')

[2] Net Earned Premium ('NEP')

[3] Net Incurred Claims ('NIC')

[4] Net Acquisition Costs ('NAQ')

[5] Operating Expenses ('Op Exp')

2015	GWP	NEP	NIC	NAQ	Op Exp	U/W Result
	£'000s	£'000s	£'000s	£'000s	£'000s	£'000s
Medical Expense	11,512	10,241	(5,411)	(2,469)	(3,223)	(862)
Marine, Aviation & Transport	62,301	24,310	(14,928)	(2,594)	(6,384)	404
Fire & other Property Damage	84,678	57,475	(55,948)	(9,200)	(16,303)	(23,976)
General Liability	30,215	19,504	(21,700)	(2,040)	(6,301)	(10,537)
Credit & Suretyship	160	127	11	(16)	(36)	86
Assistance	4,465	5,124	(3,732)	(1,479)	(1,613)	(1,700)
Miscellaneous Financial Loss	3,447	2,653	(1,312)	(673)	(744)	(76)
Non-Proportional Casualty	-	-	64	-	(10)	54
Non-Proportional Property	5,206	2,697	(1,182)	(426)	(755)	334
	<b>201,984</b>	<b>122,131</b>	<b>(104,138)</b>	<b>(18,897)</b>	<b>(35,369)</b>	<b>(36,273)</b>

The key performance indicators; the net claims ratio and combined ratio are again split down by Solvency II class of business:

	Net Claims Ratio			Combined Ratio		
	2016	2015	+/-	2016	2015	+/-
Medical Expense	36%	53%	-17%	93%	109%	-17%
Marine, Aviation & Transport	56%	61%	-5%	103%	94%	8%
Fire & other Property Damage	66%	97%	-32%	111%	143%	-31%
General Liability	112%	111%	0%	149%	155%	-7%
Credit & Suretyship	0%	-9%	9%	12%	33%	-21%
Assistance	66%	73%	-7%	120%	134%	-14%
Miscellaneous Financial Loss	63%	49%	14%	114%	104%	10%
Non-Proportional Casualty	181%	0%	181%	395%	0%	395%
Non-Proportional Property	19%	44%	-25%	67%	89%	-22%
	<b>68%</b>	<b>85%</b>	<b>-18%</b>	<b>113%</b>	<b>130%</b>	<b>-16%</b>

Under Solvency II, TMKI's book separates into four main lines of business; Fire and other Property Damage (Property), General Liability, Medical Expense and Marine, Aviation and Transport (Marine). These four classes represent 94% of the total

gross written premium in 2016 and 102% (underwriting loss of £17.4m) of the final underwriting result (£17.1m loss). Commentary is provided for these four classes.

### **Property**

The Property Solvency II line of business, which is the largest line of business within TMKI, finished the year with an underwriting loss of £7.4m (combined ratio: 111%), a £16.6m improvement on 2015 (£24.0m loss and combined ratio of 143%). Improved claims performance was the main factor with the net claims ratio reducing from 97% to 66%. 2015 incurred an unprecedented level of large loss activity in the property account, including the UK Floods and part of the Tianjin loss. 2016, however, was not an uneventful year for the TMKI property book with the net claims ratio being adversely affected by the fourth quarter fire loss in the Netherlands with a gross loss estimate of €20m, reducing to a net impact after reinsurance of £6.3m on the underwriting result.

Property was the largest contributor to the overall TMKI growth in 2016, largely due to expansion of the UK property book in areas of property owners and construction. The Property Solvency II line of business in total achieved a 7% (£3.8m) increase in net earned premium.

### **Marine**

Despite a 9% (£5.7m) increase in the Marine Solvency II line of business gross written premium, retention was down against prior year due to the higher level of Designated Account Management Programme (DAMP) business written. DAMP is primarily Japanese corporate business, written by TMKI in Europe which is then largely ceded back to TMNF hence the 15% (£3.5m) decrease in net earned premium. In particular the growth stems from increases in production at European plants by Japanese car manufacturers following a pick up in the economy. TMKI has enjoyed additional growth through the launch of the ONE TMK digital platform where cargo was the first product added.

There was a deterioration in the Marine combined ratio between 2015 (94%) and 2016 (103%). There was a 5 point reduction in the net claims ratio to 56% following an improved attritional performance, a review of old outstanding claims reserves and the fact that 2015 experienced a cargo loss in Tianjin. Additionally, there was a 7 point reduction in the net acquisition ratio to 4% as a result of increased amounts ceding commissions on DAMP business. However, these were exceeded by the 14 point increase in the expense ratio to 40%, driven by shifts in allocations by line of business in the continental branches. An element of this follows growth in gross written premium, albeit net earned premiums have reduced.

### **General Liability**

During 2016, the Solvency II General Liability line of business net earned premium increased by 13% to £22.0m (2015: £19.5m) due to growth in the French book.

The General Liability net claims ratio remained in line with the prior year at 112% (2015: 111%). Although there was a significant reduction in the level of attritional claims compared to 2015, this was offset by the aforementioned change in the Ogden discount rate.

The combined ratio for General Liability decreased in 2016 to 149% (2015: 155%), benefiting from the increased scale absorbing the fixed expenses to lower the expense ratio.

### **Medical Expense**

The Medical Expense Solvency II line of business 2016 net earned premium increased by 10% to £11.3m (2015: £10.2m) again, due to growth in the French book.

The Medical Expense net claims ratio decreased from 53% in 2015 to 36% in 2016, however, this reduction equated to only £1.4m in monetary terms.

The Medical Expense combined ratio decreased in 2016 to 93% (2015: 109%), also benefiting from the increased scale absorbing the fixed expenses to lower the expense ratio.

### 2.2.3 Analysis of underwriting performance by material geographical areas

The following tables show the TMKI underwriting result broken down by key geographical territory as determined by Solvency II classification:

2016	GWP	NEP	NIC	NAQ	Op Exp	U/W Result
	£'000s	£'000s	£'000s	£'000s	£'000s	£'000s
United Kingdom	78,972	39,860	(26,789)	(4,949)	(13,249)	(5,127)
France	73,627	53,488	(32,062)	(10,637)	(15,196)	(4,407)
Germany	21,947	10,790	(2,482)	(1,085)	(3,700)	3,523
Belgium	10,485	1,864	(187)	1,126	(2,327)	476
Netherlands	5,891	2,681	(6,059)	146	(1,314)	(4,546)
United States of America	4,931	2,277	(728)	(310)	(757)	482
Other (Rest of World)	27,077	16,084	(17,773)	(1,819)	(3,988)	(7,496)
	<b>222,930</b>	<b>127,044</b>	<b>(86,080)</b>	<b>(17,528)</b>	<b>(40,531)</b>	<b>(17,095)</b>

2015	GWP	NEP	NIC	NAQ	Op Exp	U/W Result
	£'000s	£'000s	£'000s	£'000s	£'000s	£'000s
United Kingdom	77,275	40,066	(45,873)	(6,062)	(10,821)	(22,690)
France	59,444	45,475	(39,765)	(9,071)	(12,947)	(16,308)
Germany	19,502	12,156	(4,212)	(1,908)	(4,698)	1,338
Belgium	7,410	1,861	166	740	(1,751)	1,016
Netherlands	5,081	2,898	(1,352)	11	(1,543)	14
United States of America	3,562	1,578	(824)	(221)	(426)	107
Other (Rest of World)	29,710	18,097	(12,278)	(2,386)	(3,183)	250
	<b>201,984</b>	<b>122,131</b>	<b>(104,138)</b>	<b>(18,897)</b>	<b>(35,369)</b>	<b>(36,273)</b>

The key performance indicators; the net claims ratio and combined ratio are again split down by Solvency II territory:

	Net Claims Ratio			Combined Ratio		
	2016	2015	+/-	2016	2015	+/-
United Kingdom	67%	114%	-47%	113%	157%	-44%
France	60%	87%	-28%	108%	136%	-28%
Germany	23%	35%	-12%	67%	89%	-22%
Belgium	10%	-9%	19%	74%	45%	29%
Netherlands	226%	47%	179%	270%	100%	170%
United States of America	32%	52%	-20%	79%	93%	-14%
Other (Rest of World)	111%	68%	43%	147%	99%	48%
	<b>68%</b>	<b>85%</b>	<b>-18%</b>	<b>113%</b>	<b>130%</b>	<b>-16%</b>

#### United Kingdom

The UK, which is TMKI's largest underwriting territory under Solvency II, finished the year with an underwriting loss of £5.1m at a combined ratio of 113%.

Despite continuing soft market conditions, UK gross income was up against the prior year due to growth in the property owners and construction accounts in the Property line of business. Overall the net retention was slightly lower compared to prior year (51% vs 55%) predominantly driven by a change in the business mix with the local Property book ceding more premium following changes to the risk appetite.

The result benefited from a better claims performance than 2015, reflected in a net claims ratio of 67% (2015: 114%), driven by the good attritional performance of the current year Marine line of business combined with a reduction in reserves from prior accident years. This was partially offset by strengthening of reserves in the General Liability book as a result of Ogden.

### **France**

France, the second largest underwriting territory and where the largest growth was seen in 2016, saw a notable improvement to its underwriting result compared to prior year, but still finished the year with an underwriting loss of £4.4m at a combined ratio of 108%.

Income was up on 2015 due to the growth of the Marine (car manufacture) and General Liability accounts. Net retention was in line with prior year at 76%.

The combined ratio saw a 28 point improvement in the year driven by a reduction in the net claims position to 60% (2015: 87%). Property had the most significant improvement, benefiting from a benign period of catastrophe and large loss activity as well as good attritional performance. In addition, there were specific releases in relation to the European Floods. Marine also had a notable improvement in the year driven by good attritional performance of the local book.

### **Germany**

Germany reported a solid underwriting profit of £3.5m built on steady performance throughout the year, finishing on a combined ratio of 67%.

Top line income finished above prior year with growth being driven by the General Liability book; however, retention was down against prior year (49% in 2016 compared to 58% in 2015) due to the higher proportion of DAMP business within the Marine book from Japanese manufacturing.

The combined ratio saw a 22 point improvement in the year (2015: 89%). This was driven by a reduction in the net claims ratio of 12 points to 23% as a result of good attritional performance of the General Liability book.

### **Belgium**

Belgium experienced a slight deterioration on the prior year despite reporting an underwriting profit of £0.5m at a combined ratio of 75%.

Gross premium was markedly up on 2015, driven by increased business on several key accounts on the Marine portfolio. Given that the majority of the book was comprised of Japanese business, a large portion was ceded to TMNF in the form of DAMP reinsurance resulting in low net retention of 19%.

The net claims ratio has increased by 19 points to 10%, driven primarily by attritional Marine losses; however, this increase has been offset by the reduction in acquisition costs. The negative acquisition cost reflects the high proportion of the business mix that was ceded back to TMNF resulting in more outward commissions being received.

The final contributor to the deterioration in the combined ratio was the increased expenses following the increase in gross written premium. This had a negative impact on the expense ratio due to the reduced retention rate.

### **Netherlands**

The Netherlands result saw a large deterioration in the year, reporting an underwriting loss of £4.5m, at a combined ratio of 270%.

Gross premium was markedly up against prior year, driven by growth on the Marine book.

Overall, the combined ratio decreased by 170 points in the year to 270%. This was following the large fire loss, prior to which the book had been performing well. Partially offsetting this were attritional improvements on the non-Property lines of business. The negative acquisition cost reflects the high proportion of the business mix that was ceded back to TMNF resulting in more outward commissions being received.

## United States

The US result saw an improvement in the year, reporting an underwriting profit of £0.5m, with a 14 point improvement in the combined ratio to 79% attributable to a 20 point improvement in the net claims ratio.

2016 ended with a strong net claims ratio of 32% compared to the prior year (52%) as the new business attracted a much lower loss ratio than that of the renewing book.

## 2.3 Investment performance

### 2.3.1 Income and expenses from investments by asset class

The investment portfolio consists of investment grade fixed income securities, a fixed income Absolute Return Fund, money market funds, fixed deposits and cash. Investment performance in terms of income and expenses is summarised by asset class in the table below on a UK GAAP basis.

	<b>2016</b>	<b>2015</b>	<b>Variance</b>
	<b>£'000s</b>	<b>£'000s</b>	<b>%</b>
Government bonds	<b>1,176</b>	506	132%
Corporate/agency bonds	<b>1,668</b>	547	205%
Securitised	<b>4</b>	-	-
Money market funds and cash	<b>593</b>	513	16%
Absolute Return Fund	<b>793</b>	-	-
<b>Gross investment return</b>	<b>4,234</b>	1,566	170%
Investment management fees	<b>(289)</b>	(327)	-12%
<b>Net investment return</b>	<b>3,945</b>	1,239	218%
<i>Gross percentage return</i>	<b>1.4%</b>	0.5%	180%

Investment income comprises interest receivable and dividends receivable, together with realised and unrealised investment gains or losses. Investment fees consist of asset management and custody fees.

Information relating to investments is reported on a fair value basis within the income statement. They are initially recorded at cost, which equates to fair value and subsequently re-measured at fair value through profit or loss. No gains or losses are recognised directly in equity.

Investment return was £3.9m compared to £1.2m achieved in the prior year. With just over half of investment assets comprising Sterling denominated fixed income securities, total investment performance is materially affected by movements in UK yields.

In contrast to the prior year, 2016 saw yields fall from the beginning of the year due to the uncertainty of the referendum to leave the European Union. Following the unexpected vote to leave the EU, yields fell further boosting the returns on the Sterling fixed income portfolios.

### 2.3.2 Investment in securitised assets

TMKI currently has a small allocation of directly-held securitised assets, which are sterling-denominated and AAA-rated, which in aggregate are less than 1% of TMKI's total investment assets. A small portion of securitised assets are also indirectly held via the Absolute Return Fund positions. The materiality of such securities is monitored and reviewed quarterly.

## 2.4 Performance of other activities

### 2.4.1 Other material income and expenses

The equalisation provision has historically comprised amounts set aside to mitigate exceptional high loss ratios in future years for classes displaying a high degree of claims volatility. During 2015, the provision was fully released due to the unusually high level of claims activity and no future provision was established as it is no longer required under the Solvency II framework.

There was a £5.5m gain on foreign exchange in 2016 which came as the Sterling weakened considerably against the Euro following the Brexit vote. This led to a large foreign exchange gain on the revaluation of opening net assets and technical profit and loss movements, whereas in the prior year there was a loss of £3.5m as the Euro weakened against Sterling.

## 2.5 Any other information

There is no additional information which should be disclosed.

## 3. System of governance

### 3.1 General information on the system of governance

#### 3.1.1 Role and responsibilities of the administrative, management or supervisory body and key functions

TMKI is part of TMK's business in Europe.

TMK's European business operates on two platforms: a company platform as TMKI and within the Lloyd's London market as Tokio Marine Kiln Syndicates Limited (TMKS); both operating within the regulatory framework stipulated by the PRA and the FCA as highlighted in section 2.1 of this report.

Although both TMKI and TMKS are separate regulated entities, TMK's Group board governs the overall business as a single group. This includes the international and regional operations.

The regulated boards of both TMKI and TMKS have combined board and board committee meetings with common membership. The agenda and minutes easily identify those elements of the meeting that are entity-specific. Given that both regulated entities are managed as one, a single Own Risk and Solvency Assessment (ORSA), Governance Map and Terms of Reference are in place.

There is also a group level management team, with the following departments and functions operating at the TMK level with group heads of department to support both entities: Actuarial, Claims, Compliance, Finance, Governance and Legal, Human Resources, Internal Audit, Operations, and Risk Management.

TMK has continued with its plan, which commenced in 2014, to build a single fully-integrated group; in the third quarter 2016 TMK announced the completion of the final stage of its integration by restructuring its underwriting divisions along sector lines. There are four fully integrated underwriting departments with a single reporting line into the Group Chief Underwriting Officer: Property & Casualty; Marine, Aviation & Special Risks; Accident, Health & Life; and Reinsurance, which are complemented by a first class claims team and an expert risk engineering service.

#### Role and responsibilities of the TMK boards

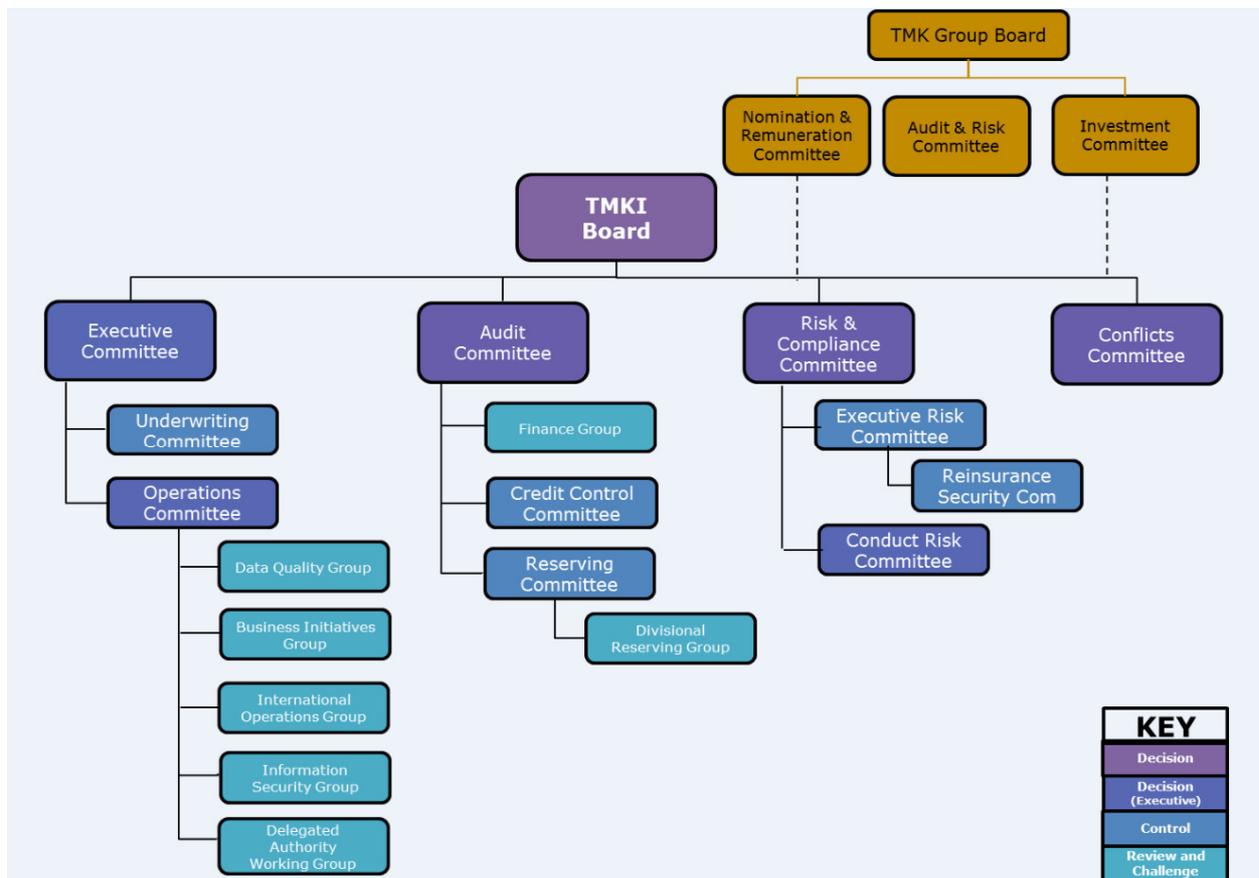
The roles and responsibilities of the TMK Board:

- sets the Group's standards and values;
- determines the strategic direction and management of the Group;
- monitors the performance of the Group;
- provides leadership;
- ensures that the control framework enables the required assessment and appropriate management of risk;
- ensures that the Group has sufficient human resources to meet its objectives with the budget.

For TMKI the board's terms of reference include details of specific matters that are reserved for decision by that board. These include items relating to:

- strategy and management;
- dividends and capital;
- financial reporting controls;
- certain appointments;
- business plan approval and associated capital requirements;
- underwriting;
- reserving;
- aggregate exposures and realistic disaster scenarios;
- risk management policies and procedures;
- the establishment of any committee of the board and its composition.

The boards of the regulated entities delegate responsibility for particular matters to one or more board committees, the Chairman, Group Chief Executive Officer or otherwise as it shall see fit. The TMK board has also appointed a number of committees to assist it in discharging its responsibilities.



TMK's governance model sets out the boards' key responsibilities and promotes TMK's core values with the overarching aim of adding value and increasing returns to all stakeholders through knowledgeable underwriting of risks and good understanding of clients' requirements, whilst acting with respect and integrity.

TMK is committed to high standards of corporate governance and believes that the board and committee structure supports those requirements and the provision of an adequate flow of information from all the business functions into the committees and ultimately up to the regulated and TMK boards.

### 3.1.2 Main roles and responsibilities of Key Functions

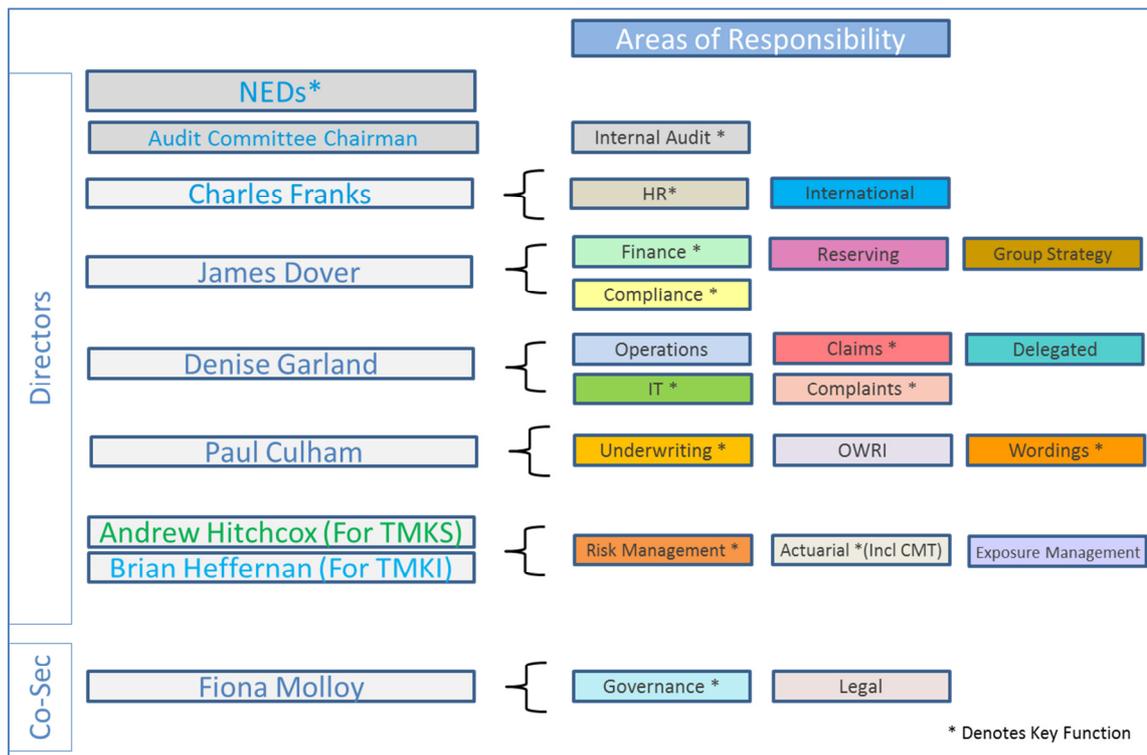
Key Functions are those functions whose operation "if not properly managed and overseen, could, depending on the nature and complexity of the business, potentially lead to significant losses being incurred or to a failure in the ongoing ability of the firm to meet its obligations to policyholders".

In accordance with the rules in the Conditions Governing Business part of the Rulebook and the European Union's Solvency II Delegated Regulation, the following business functions have been designated as key functions: Risk Management, Compliance, Internal Audit, and Actuarial.

Following an internal assessment, TMK has also designated the following as key functions: Underwriting; Claims; Complaints; Finance; Governance; Wordings; IT and Human Resources.

The Non-Executive Directors have also been designated as a Key Function.

All business functions have a reporting line to the regulated boards as shown in the following diagram:



### 3.1.3 Resourcing and operational independence of key functions

The Actuarial Function coordinates the calculation of the technical provisions as set out in Article 82 of the Solvency II directive: comparing best estimates against experience; ensuring that methodologies, models and the assumptions underlying the technical provisions are appropriate; calculating the ultimate loss ratios and GAAP technical provisions; assessing uncertainties underlying reserves estimates; and assessing the continued appropriateness and suitability of the standard formula to TMKI's risk business and risk profiles for calculating regulatory capital requirements.

The Actuarial Function also supports the development and maintenance of an effective risk management system through reviewing risk appetite assessments; supporting the ORSA process; providing the boards and management with information on risk and capital profiles; and assessing appropriateness of reinsurance programmes and underwriting policy.

The Risk Management Function facilitates: the establishment and implementation of the risk strategy; risk policies and risk process; ensuring a consistent approach for identifying, assessing, mitigating, monitoring and reporting of risks; challenging risk management practice; and helping to embed a culture of risk awareness and proactive risk management. In addition, the function assists with the setting of risk appetite limits and reporting against them, providing the boards and management committees with timely reporting on risks at the aggregated level.

The Risk Management Function has oversight of the Internal Control Framework, supporting regular departmental risk assessments, conducting Special Risk Assessments, and providing the boards and management with training on risk matters.

The Compliance Function manages regulatory risk to the business. The Compliance Function maintains ongoing awareness of the regulatory environment and uses this to advise the business in anticipating the regulatory direction. It manages the relationships with regulators. The function has an Advisory Team within it whose function is to provide guidance and analysis to the business when interpreting regulations. The Oversight and Assurance Team is independent of the Advisory Team and monitors whether existing business processes and practice are being operated in a compliant manner. The function also conducts regular monitoring oversight of the business to identify areas of potential breach of regulations. The function provides the necessary reporting required to the boards and management on regulatory compliance risk exposure.

The Internal Audit Function evaluates the appropriateness, adequacy, operation and effectiveness of the system of governance, including the internal control system. Internal Audit's remit covers review of processes and controls, how these are being adhered to and implemented by all the business areas and operational units, and the timing and frequency of

reports. The function provides the audited team with a report of their findings and recommendations, with deadlines for completion and the persons responsible for any necessary action(s) agreed. The function also monitors completion of the agreed actions.

The roles of the other functions designated as Key Functions as detailed in the Governance Map within TMK are as set out in their internal departmental documentation.

### **3.1.4 Material changes in the system of governance over the reporting period**

During the course of 2016, the Senior Insurance Managers' Regime came into force.

In accordance with the requirements, TMK reviewed the governance arrangements across the Group, developed and implemented a Governance Map. The Governance Map and the Supplemental Information to the Governance Map, which supports it, provides an overview of the system of governance at TMK.

Another material change within TMK's system of governance was the merger of underwriting teams across TMK, combining both TMKI's company platform and TMKS's Lloyd's platform. The original seven underwriting divisions across TMK were regrouped into four fully-integrated underwriting departments, giving TMK's clients the opportunity to access products in both Lloyd's and company markets more easily.

### **3.1.5 Material Risk Takers**

In line with the PRA's requirement that firms should implement a "Material Risk Taker" process and identify staff that are able to take material risks and those able to influence material risk-taking, TMK's Nomination and Remuneration Committee have reviewed the criteria (including "consistent materiality thresholds") and designated the following categories of people as Material Risk Takers:

- board members;
- individuals who "effectively run the business";
- Key Function office holders;
- those who have a material impact on TMK's risk profile, based on role held;
- those who are accountable for 10% or more of TMK's gross net premium or capital at risk;
- Chairman of the Conduct Risk Committee;
- Chairman of the Underwriting Committee.

### **3.1.6 Remuneration policies and practices**

#### **Principles of the remuneration policy**

TMK's overall remuneration strategy is based on a robust process for reviewing and aligning all aspects of employees' reward against relevant market data. TMK's practices and procedures also reflect best practice and PRA and FCA requirements.

Specifically, TMK seeks to:

- Ensure that the level of employees' total compensation reflects the pay position that the Group wants to take relative to the market. For consistently high performers, the total compensation aspiration is set at the upper quartile.
- Maintain a risk management culture, which ensures that TMK's employees conduct their affairs in line with regulatory requirements and external stakeholders' interests.
- Ensure employees' pay awards are fair, consistent, equitable and transparent.
- Ensure that the Group does not unintentionally discriminate in any way, and that it strives to eliminate anomalies.
- Keep up-to-date with the market by benchmarking and reviewing pay on an annual basis.
- Take into account all aspects of compensation and benefits.
- Ensure that the approach to compensation and benefits support its aim of being a family friendly employer.

Remuneration at TMK is based on fixed pay and variable pay.

### **Fixed pay**

Fixed pay comprises salary, pension and benefits. Salaries are benchmarked annually to ensure that each employee is paid the market rate for the position they fill. Benefits, such as pension allowances, holidays, and medical benefits, vary by role and seniority and they supplement the fixed pay offering.

TMK's policy is to ensure that employees' fixed remuneration is sufficient to ensure that individuals do not take excessive risks in order to generate additional reward to meet their cost of living.

### **Variable pay**

This is used to reward employees for their contribution to TMK by recognising contributions above the performance expected of their role. All employees are eligible to participate in TMK's Profit Related Remuneration (PRR) scheme, which allows them to share in the Group's achievements through the allocated incentive pool based on TMK's success in achieving profitability targets set out in the Group Business Plan and individual performance.

Some senior employees are invited to pledge a portion of their PRR in the Kiln Incentive Plan, which may lead to additional payment based on the profitability and effectiveness of the business.

Underwriting staff participate in TMK's profit commission scheme. This incentivises underwriters to deliver sustained underwriting performance with a focus on long-term profitability.

#### **3.1.7 Individual and collective performance evaluation criteria**

In order to rate and calibrate performance, TMK follows a consistent four-tier system of grading, which has been designed for ease of use and to reduce the levels of bureaucracy often connected with performance rating systems.

Managers are expected to base this rating not only on the specific objectives set but also on a greater understanding of performance against role requirements such as role profile and job description.

The ratings are finalised and agreed between employee and line manager in advance of the ratings being submitted. The employees' year-end performance rating (which affects the level of PRR awarded) incorporates an assessment of their adherence to risk and conduct guidelines during the year under review.

#### **3.1.8 Supplementary pension scheme for members of the board and/or key function holders**

TMKI does not provide supplementary pension or early retirement schemes for members of the board or other key function holders.

#### **3.1.9 Material transactions with shareholders and those who exercise significant influence during the reporting period**

TMKI enters into transactions with other Tokio Marine Group entities in the normal course of business. The most material transactions are the reinsurance cessions to TMNF.

#### **3.1.10 Assessment of adequacy of the system of governance**

##### **Review of board effectiveness**

In line with best practice, an annual review of board effectiveness is completed within TMK for each board. As a matter of course, key areas of focus include:

- the role and composition of the board;
- the structure of board meetings;
- the effectiveness of board standing committees;
- individual performance of directors and the board as a whole, including training requirements;
- the effectiveness of Internal Audit.

Other key areas that directors consider include:

- strategy;
- risks;
- culture;
- change management;
- leadership;
- accountability;
- external factors;
- regulation.

In two years out of three, an internal process is used to complete a questionnaire-based board effectiveness review. The board considers this review's findings and agrees the actions that should be taken. All actions are tracked to completion.

Every third year, a facilitator is appointed to conduct a facilitated review of the board and its committees' effectiveness. This includes interviews with individual directors, review of board and key committees' terms of reference, and review of board papers and minutes. The facilitator will also attend a board and/or committee meeting to observe how they are being conducted. A summary of key findings and actions are then presented at a board meeting for consideration, where appropriate actions are agreed and tracked to completion.

### **Ongoing review**

There is a standing item on the agenda for each quarterly board meeting entitled "Reflection", the aim of which is to allow time for directors to reflect on the effectiveness of their meetings. Any observations or suggestions for improvement are recorded in the minutes, and agreed actions are tracked to completion.

## **3.2 Fit and proper requirements**

### **3.2.1 Requirements for skills, knowledge and expertise**

TMK takes the fitness and propriety status of all its employees, not just Key Function holders, very seriously and will ensure that all staff are, and continue to be, fit and proper for their respective roles.

All candidates are assessed prior to appointment as part of the recruitment process, and on an ongoing basis. Certain events, such as an internal promotion, may also trigger a further review.

When considering employees fitness and propriety, the following are taken into account:

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

TMK will ensure the professional competence, qualifications and suitability of all new employees through its recruitment procedures, which include an assessment by an external investigator.

### **3.2.2 Fitness and propriety assessment process**

In assessing a candidate's competence and capability prior to employment, all relevant matters are considered. This includes a review and assessment of:

- The required competencies and capability to fulfil the intended role. This is assessed throughout the recruitment process, particularly through interviews.
- The experience and training required to ensure that these are commensurate for the intended role.
- Whether the candidate's reputation would suit the role they are being considered for, bearing in mind the factors set out within the FCA Handbook's section 2.1.3 on fitness and propriety.

In order to comply with the fitness and propriety requirements, as part of any recruitment process, TMK:

- With the full knowledge and agreement of the candidate, completes civil and criminal checks through the use of a third-party provider.
- Checks the veracity of any professional or other qualifications that are relevant to the role applied for.
- Ensures that any gaps within the candidate's employment record are accounted for.
- Obtains references from the candidate's former employers.
- Considers and reviews any adverse disclosure made by candidates; full supporting documentation will also be requested.

In determining a candidate's financial soundness, TMK takes into account whether the individual has been subject to any judgement debt or award in the United Kingdom or elsewhere, whether this remains outstanding or was not satisfied within a reasonable period, and whether the individual has made any arrangements with creditors, filed for bankruptcy, had a bankruptcy petition served on them, been adjudged bankrupt, or been the subject of a bankruptcy restriction order or any other related matter.

For existing staff, on-going checks are undertaken through the annual performance review process and through regular self-assessment, which is completed by all staff worldwide, including contractors.

On a bi-annual basis, the TMK board considers a verbal report from the Group Chief Executive Officer on the competency of the Approved Persons following the performance review process. The competency of the executive and non-executive members of the boards is reviewed by the Nomination and Remuneration Committee.

Additionally, all employees are required to ensure that:

- Any training to address development needs or gaps is completed.
- They continue to meet the fitness and propriety requirements as detailed in the policy.
- If their circumstances change, they notify TMK of any changes in their circumstances that might have an effect on their fitness and propriety status. Upon receipt of this additional information, consideration will be given to whether they remain Fit and Proper in accordance with the policy and a decision will be made on whether any further action is required.

Any non-disclosure of relevant information is taken seriously.

## 3.3 Risk management system, including the own risk and solvency assessment

### 3.3.1 Implementation of the risk management system

The Risk Management Function is organised at the TMK Group level to support both TMKI and TMKS. The Group Chief Risk Officer is Andrew Hitchcox while the Chief Risk Officer of TMKI is a separate individual, Brian Heffernan.

TMK's risk management strategy focuses on both the upside and downside risks, seeking to balance the risks and opportunities associated with the business strategy and objectives.

Risk identification takes place through a systematic risk assessment process, comprising activities such as regular and ad-hoc meetings (at least once annually) of the Risk Management Team with each business department, annual stress and scenario testing process, and reverse stress testing activities. Following identification, each individual risk is categorised and managed through clearly defined appetites and committee owners. The list of individual risks that TMKI is exposed to is recorded within the Risk Universe.

### 3.3.2 Integration of the risk management system into the decision-making processes

There are risk management policies in place for each risk category. These are owned by the business and functional areas in line with their designation as risk owners within the Three Lines of Defence approach for risk ownership, management, oversight and assurance, which has been implemented within TMK.

Risks are managed by the risk owners and reported upwards to designated committees, thus ensuring that risks are overseen on an aggregated basis.

The Risk Management Team reports to the Executive Risk Committee on a monthly basis, with regular reporting including ORSA updates. This ensures that individual risks and aggregated concentrations of risks are assessed, tracked, and reported on a regular basis.

The Risk Management Team also report on a quarterly basis to the Risk & Compliance Committee on risk management matters via a comprehensive risk dashboard, which includes detailed analysis on top risks each quarter, an incident and near-miss summary, and detailed risk metrics against stated risk appetites.

As well as monitoring and assessing individual risks through the risk register process and risk metrics reporting, there are a number of other methods used by the Risk Management Team to assess and report on all individual and aggregate risks:

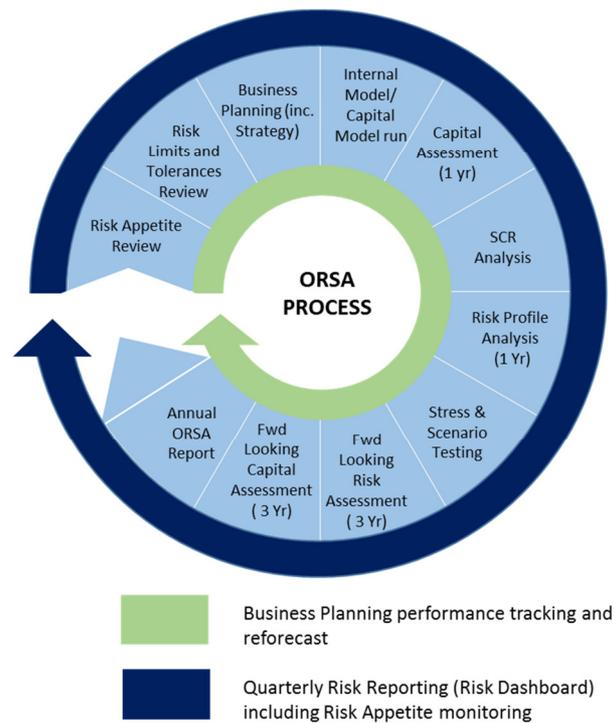
- Underwriting risks are assessed through a quarterly Key Insurance Risk report, which monitors the current aggregated exposure to the largest natural catastrophe events for TMKI, as well as the exposure to large loss events, such as fire damage to UK insureds.
- The stress and scenario testing process contributes to the assessment and reporting of both individual and aggregated risks.
- An emerging risk analysis and reporting process is used to examine individual risks and aggregations of potential future threats and opportunities, both internal and external to the business. Research on emerging risks is undertaken independently by the Risk Management Team, as well as with the market, to help identify and assess individual risks, as well as to consider the ways in which they are likely to aggregate within the current risk profile of the business.

The frequent risk assessment and reporting allows management to understand the risks faced by TMKI on both current and a future horizon bases. Through monitoring changes in the risk profile, the risk reporting enables the Executive Risk Committee, Risk & Compliance Committee and the Board to make informed decisions. The Risk Management Team is also often tasked with “Special Risk Assessments” to further support the business in their consideration of future strategic decisions, such as the 2016 assessment of the risks posed by Brexit.

### **3.3.3 TMKI’s ORSA Process**

The TMK ORSA process is governed by an ORSA Policy, which outlines how the assessment is performed, documented and reviewed. The ORSA Policy is reviewed and re-approved on an annual basis by the boards, and it establishes the processes for conducting the quarterly and annual ORSA, with a detailed report produced by the Risk Management Team in the fourth quarter of each year.

The ORSA process is a continuous, on-going series of sub-processes that run from the first quarter to the fourth quarter every year, starting with the review of risk appetites, which feeds into the review of existing risk limits and tolerances. The outputs of these processes are considered within the business strategy review and business planning processes as shown in the following schematic:



The outputs of this iterative process are fed into the TMKI capital model runs to assess the one-year capital requirements that correspond to the risk profile. Analysis of the SCR is also carried out as part of the process.

The resulting numbers are then taken through appropriate stress and scenario testing, with the scenarios and any shocks to apply within the process having been previously agreed with key business leaders and executive management.

Forward-looking risk assessments are also carried out, taking the medium-term strategy, risk outlook and growth projections into account, to obtain the indicative forward-looking future risk and capital profiles. These are subjected to further stress testing before the final risk and capital profiles are agreed.

Within the ORSA process, stress and scenario testing and analysis are annual processes facilitated by the Risk Management Team. In addition, an assessment of the impacts of the strategic Group Business Plan (and any changes made to it) on current and future capital requirements, as well as the overall risk profile, is undertaken, at least, annually. Any identified impacts are analysed and included within the ORSA Report. The ORSA process and reports are structured to highlight any material changes to the TMK's risk profile, capital profile and solvency position.

A significant change to the risk profile will trigger an ad-hoc re-run of the ORSA process outside its regular cycle. A significant change is defined to be a movement of 15% or more in the modelled economic capital requirement over a quarter. Other events, which will trigger a rerun the ORSA process outside its regular cycle include:

- failure in underlying controls or risk assessment processes leading to an incorrect assessment of capital requirement;
- major market loss;
- major change in the Group Business Plan; or
- failure of counterparties or reinsurers, where there is significant exposure.

The Group Chief Risk Officer, supported by the Risk Management Function, is responsible for producing ORSA reports and for ensuring that these meet the regulatory requirements.

### 3.3.4 Integration of the ORSA into TMKI's decision-making processes

The outputs of quarterly ORSA processes are in the form of the risk dashboards, through which updates are provided to the Executive Risk Committee and the Risk & Compliance Committee. The dashboard contains information on all categories of risk

(strategic, financial, operational and emerging) and summarises both quantitative and qualitative risk information, using risk metrics to track performance of the most significant risks against risk appetite over time. It also provides the Risk Management Team's opinion on the risk profile.

The annual ORSA report is reviewed and challenged by the Executive Risk Committee, the Risk & Compliance Committee, and the boards in the fourth quarter each year before its submission to the regulators. The report is also independently reviewed by the Internal Audit Function, who will consider if the report is consistent with any issued market guidance.

### **3.3.5 Use of the ORSA to determine TMKI's solvency needs – interaction between capital and risk management systems**

ORSA reporting to senior management takes place every quarter, with the Executive Risk Committee, the Risk & Compliance Committee, and the boards receiving reports and updates on the risk profile and the outlook over the business planning horizon through the ORSA dashboard. Risk and capital profiles, and changes between quarters, are highlighted with any necessary changes to strategy (for example, with regards to outward reinsurance)

The TMKI Chief Risk Officer provides the Executive Risk Committee and the Risk & Compliance Committee with quarterly capital updates, which detail the latest regulatory and economic capital calculations and the amount and quality of own funds available to the business. These two committees review the capital positions against the business and risk profiles, and make appropriate recommendations to the boards.

Metrics on capital are regularly reported to the Executive Risk Committee and the Risk & Compliance Committee through the quarterly risk dashboard. This includes metrics used to track the level of required economic capital compared to the capital held by TMKI and the agreed solvency margins. Assessments of appropriateness of the standard formula to TMKI's risk profile for regulatory capital calculation purposes are also undertaken independently by both the Finance Team and the Model Validation Team.

## **3.4 Internal control system**

### **3.4.1 Description of the internal control system**

TMK's internal control system comprises a combination of activities carried out within the group to eliminate or reduce the likely impact of risks and other developments that has the potential to prevent it from effectively executing its business strategy and achieving its objectives. This include actions taken within the business and functional areas, reviews and reporting undertaken by the both the Risk Management Team and the Compliance Team as Control Functions, and the independent review and assurance activities undertaken by the Internal Audit.

The Risk Management Function, the Compliance Function and Internal Audit provides regular, at least quarterly, reporting on the internal control system to the Operations Committee and the Executive Committee. Annual reporting on the effectiveness of the internal control system is provided to the boards and to TMHD as part of the parent group.

It is each department's responsibility to own and manage their internal control environment and ensure effectiveness of the controls operating within it.

#### **Risk controls**

One of the various processes underpinning the risk management system is the use of risk controls within the business and functional areas. These controls are identified as part of the Risk and Controls Assessment process, and used to mitigate the risks within each department. The use of risk controls is further supported by the Incident and Near-miss Process.

In 2016, the Risk Management Team successfully rolled out a new controls assessment methodology throughout TMK, the key objectives of which were:

- To build a library of departmental level controls for mitigating the risks within each department, including those identified through the Risk Management Team's risk assessment process. This library is known across the business as the Internal Controls Framework (ICF) document.

- To assist the business in identifying their main controls, and provide them with training on what good controls look like.
- To provide an independent, Second Line view of each department's internal control environment, and report findings to various management committees; for example, the Operations Committee.

All departments now have an ICF in place, and these are independently reviewed, at least once, annually by the Risk Management Team.

Within this process, the Risk Management Team provides an assessment of each control in terms of their design and operational effectiveness. This assessment's findings are extensively discussed with each department, and the agreed individual control scores are used by the Risk Management Team to provide an overall Red-Amber-Green rating on the robustness of each department's internal control environment.

The results of these assessments are reported to the Executive Risk Committee, Underwriting Committee, Operations Committee, the Risk & Compliance Committee and the boards, as appropriate. Each head of department also provides regular control updates to the Operations Committee on weaknesses identified through the ICF process.

### **Incidents and near misses**

A comprehensive incident and near-miss process is in place to ensure that events that have the potential to disrupt the TMK's operations are captured and recorded.

Active management of incidents and near-misses ensure that trends and control weaknesses across TMK are identified and escalated to senior management at the appropriate forum. The Risk Management Team facilitates this process by collating all reported incidents and near-misses from around the business. Analysis of these is carried out to identify:

- common root causes of incidents that prevent departments from operating in an efficient manner;
- control weaknesses, leading to improvement plans;
- trend analysis on the types of incidents and near-misses experienced by the business.

It is the business areas' responsibility to identify, manage and report incidents and near-misses within their departments to the Risk Management Team. The Risk Management Team prioritises these for reporting to senior management, the Operations Committee, Executive Risk Committee, the Risk & Compliance Committee and the boards on a quarterly basis, ensuring that material control weaknesses and trends are understood and addressed, where appropriate.

### **3.4.2 How the Compliance Function is implemented**

The Compliance Function is organised at the TMK level; with two teams whose roles cover six areas: advisory, horizon scanning, regulatory relationship management, reporting and compliance framework, compliance training and education, and oversight and assurance.

The Advisory Team reports to the Head of Compliance and they are responsible for having a detailed understanding of the regulatory requirements that apply to TMK's operations and using this to proactively provide guidance to the business, based on developments, such as changes to the regulatory framework and TMK's business procedures.

The team also assists in resolving business-initiated queries and ensuring compliance with applicable regulations. Queries from the business are either freely sent or are required to be referred to the Advisory Team as part of a set procedure. These may be with regards to sanctions and/or licensing requirements, but can cover any regulatory issue, generally on a pre-bind basis. The Advisory Team is also responsible for maintaining the Gifts and Entertainment Policy and log.

The Oversight and Assurance Team also reports to the Head of Compliance and they are responsible for undertaking risk-based and proportionate assurance reviews to identify instances of non-compliance, whether systemic or one-off, within the business. The team undertakes regular review, testing and critical analysis of each first line control for their robustness and suitability.

In addition to reviewing the advice provided to the business by the Advisory Team for accuracy and appropriateness, the Oversight and Assurance Team also conduct regular monitoring exercises across all underwriting classes on a post-bind basis,

covering areas such as licensing and financial crime. A regular feedback loop exists with the first line teams, and monthly and quarterly reports are provided to the Executive Committee and the Risk & Compliance Committee, respectively.

Furthermore, the Oversight and Assurance Team complete thematic reviews as per the pre-agreed annual Compliance Plan, the findings from which are issued to the senior management.

The compliance teams routinely follow-up with the business areas to review progress against agreed actions, and they conduct and perform special projects in response to instances of suspected breaches of internal policy, financial crime and/or other malfeasance, at the request of the boards or any of their committees.

Regulatory relationships, reporting and compliance framework, and training and education, are the collective responsibility of both compliance teams.

## 3.5 Internal Audit Function

### 3.5.1 How the Internal Audit Function is implemented

The Group Internal Audit is an independent function within the TMK Group, which examines and evaluates the functioning of the internal controls and all other elements of the system of governance, as well as the compliance of activities with internal strategies, policies, processes and reporting processes.

The function is responsible for helping the TMK Board to protect the group's assets, reputation and sustainability through assessing whether all significant risks are being identified and appropriately reported by management and the Risk Management Function to the boards and their committees; assessing whether risks are being adequately controlled; and challenging executive management to improve the effectiveness of the governance, risk management and internal control frameworks.

Internal Audit also reviews the design and operating effectiveness of the governance processes, risk management procedures, internal control and information systems.

TMHD issues an Annual Policy for Internal Audit, which sets out the key objectives for Group Internal Audit functions and identifies a number of key focus areas that must be addressed in the audit cycle.

Internal Audit performs its work in accordance with the International Standards for the Professional Practice of Internal Auditing issued by the Chartered Institute of Internal Auditors. The function is governed by an Internal Audit Charter, which sets out the function's role, mandate and authority, and the independence and objectivity criteria.

### 3.5.2 Independence of the Internal Audit Function

To ensure its independence, Internal Audit is directly accountable to the Chairman of the Audit Committee. For administrative purposes and day-to-day communication, Internal Audit reports to the Group Chief Executive Officer.

To maintain objectivity, Internal Audit is not authorised to perform any day-to-day control activities or take operational responsibility for any part of the business outside of their internal audit responsibilities. Instead, management is responsible for maintaining an efficient and effective system of internal controls.

The Audit Committee defines and reviews the scope and nature of work by Internal Audit to confirm its continued independence and objectivity.

## 3.6 Actuarial Function

### 3.6.1 How the Actuarial Function is implemented

The Actuarial Function is also organised at the TMK Group level to support both TMKI and TMKS. The Group Chief Actuary (Brian Heffernan) is also the Chief Risk Officer of TMKI while the Chief Actuary of TMKI is a separate individual (Wilfred Chin).

TMKI's Actuarial Function comprises of the following technical teams: the Actuarial Reserving Team, the Capital Modelling Team, and the Pricing and Analytics Team. In addition to their day-to-day responsibilities, the teams are also responsible for, or contribute to, the following high-level areas as laid out in Article 48 of the Solvency II Directive:

- technical provisions;
- own risk and solvency assessment;
- opinions on underwriting policy and reinsurance arrangements.

All the above technical teams report to the Group Chief Actuary, who in turn reports to the Group Chief Financial Officer.

The Group Chief Actuary has overall responsibility for oversight of the Actuarial Function and for ensuring that the processes are in compliance with relevant regulatory and Actuarial Standards.

The TMKI Chief Actuary, delivers annual Actuarial Function Reports and Opinions on Technical Provisions, Underwriting Policy and Reinsurance arrangements to the TMKI Board.

Both the Group Chief Actuary and TMKI Chief Actuary hold Chief Actuary Practising Certificates issued by the Institute and Faculty of Actuaries and are Approved Persons under the Senior Insurance Managers Regime.

## 3.7 Outsourcing

### 3.7.1 TMK's outsourcing policy

TMK's delegation, or outsourcing, to third-party suppliers or service providers of certain business tasks is guided by the Outsourcing Policy. This ensures that there are adequate reviews of, and approval for, the outsourcing arrangements and that they are performed in a controlled manner, so that they provide an effective level of service and do not unduly impact any of TMK's own systems or controls.

In order to maintain effective control over outsourced functions (including those which are sub-outsourced or outsourced to other companies within the TMK Group) and to adequately manage the associated risk, TMK ensures that:

- Adequate review and assessment is carried out of the impact of a third-party contract on TMK's risk profile, as well as contingency planning in the event of an outage or service failure by the service provider.
- The supplier or service provider has the ability, capability and legal authority to meet (or exceed) TMK's commercial and business requirements and, as far as it is aware, is free of conflicts of interest relevant to the potential outsourcing arrangement.
- The service provider is financially sound, professionally competent, appropriately experienced and has in place adequate insurance cover to meet its contractual obligations.
- Contract terms meet TMK's legal and regulatory requirements.
- Written agreements are in place for all outsourcing arrangements, which govern the relationship with the service provider, setting out the duties and responsibilities of both parties and that these are signed-off by the authorised signatories of the parties.
- Each material contract is approved by a board (or by a committee designated by the board) and owned by a Business Sponsor supported by a Contract Monitor.
- Non-material contracts are owned by a Business Sponsor and supported by a Contract Monitor.
- Procedures are in place to ensure the safety and confidentiality of TMK's and its clients' assets and information.
- TMK has a clear and documented understanding of the functions to be outsourced.

TMK's Third-party Contract Procedures include processes to meet the above requirements using the appropriate control documents, in addition to the relevant review and sign-off responsibilities. These procedures ensure that any outsourcing arrangement does not impair TMK's systems of governance or increase the level of operational risk.

Third-party contracts are categorised into "material" and "non-material" contracts, with a risk-based approach adopted in determining whether a contract is material or non-material. This takes into account both the likely business impacts and the mitigation, as set out within the TMK Outsourcing Policy and the Third-party Contract Procedures.

All material contracts are subject to the full Solvency II outsourcing requirements and the appropriate procedures, including due diligence checks, while non-material contracts are those either not critical to TMK's business or they are such that service failure could not result in significant disruption to the business operations.

Non-material contracts are subject to TMK's own minimum requirements for legal and commercial sign-off.

The following functions are not considered critical or important for the purpose of determining materiality:

- Provision of advisory and other services, which do not form part of the relevant services and activities of TMK, including the provision of legal advice, training of personnel, billing services and the security of premises and personnel.
- Purchase of standardised services, including market information services and the provision of price feeds.
- Recording and retention of relevant telephone conversations or electronic communications subject to FCA's COBS 11.8.4 requirements.

### 3.7.2 Material Outsourcing Arrangements

The current material outsourcing providers are:

Name of supplier	Service received	Jurisdiction Located In
AON Limited (ReMetrica)	Modelling platform	London , UK
Blackrock	Risk management service	New York, USA
Blackrock	Discretionary Investment Management Service Investment accounting system	London, UK
Ceridian	Provider of HR + Payroll services	Reading, UK
Mitsubishi	Investment Managers	London, UK
Moore Stephens	Pricing Models	London, UK
NTT Data UK	Application development & Support services	London, UK
NTT Europe	Provisional/Support of global telecoms network (voice and data) to all TMKI offices	London, UK
RMS	Property Catastrophe Modelling	California, USA
Sungard	Disaster Recovery Services	Hounslow, UK
Xuber (Genius)	Genius (underwriting system) software functionality Genius support and maintenance services	London, UK

### 3.8 Any other information

There is no additional information which should be disclosed.

## 4. Risk profile

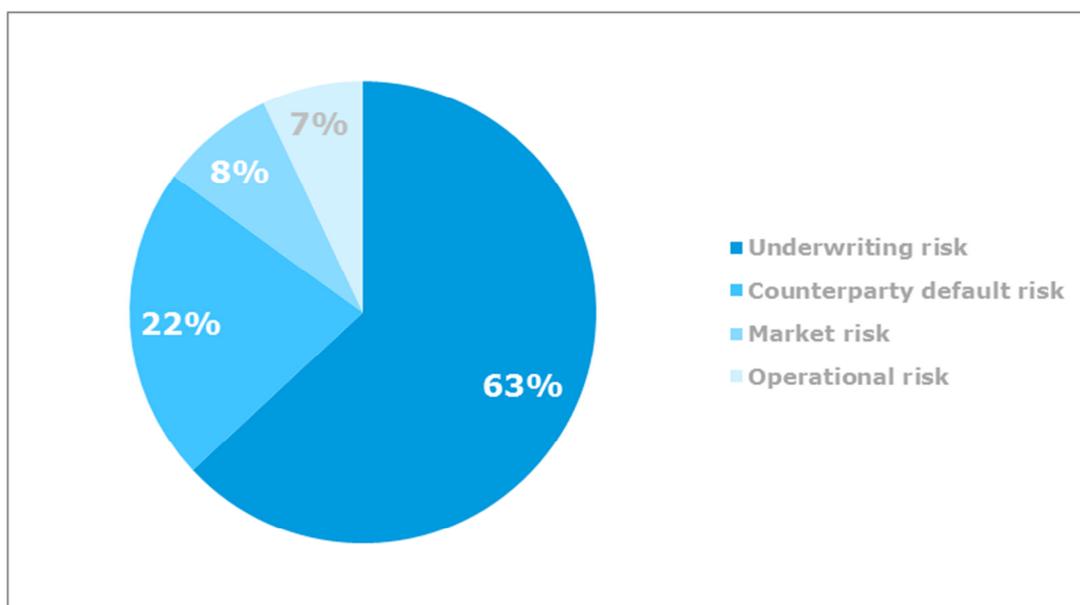
### 4.1 Summary of risk profile

TMKI's principal activities are the underwriting of commercial marine cargo, property and liability insurance business in the United Kingdom, and in Europe, through branch offices in Belgium, France, Germany, Netherlands and Spain and agencies in continental Europe.

TMKI's business model remains consistent as specialist underwriters who take a prudent approach to risk management, focusing largely on shorter-tail specialist lines of insurance and reinsurance business where it knows that a loss has occurred relatively quickly, and so is able to make more immediate reliable estimates regarding the extent of the losses to expect. TMKI is substantially exposed to catastrophe-related business and have detailed knowledge of the risks it underwrites.

It is TMKI's policy to confine its exposure to risk primarily within its core areas of expertise: the underwriting of specialist insurance and reinsurance risks. This approach means that TMKI is at the cautious end of the spectrum in all areas of financial risk management, such as investment management and reserving. This allows TMKI to protect its capital on the balance sheet and focus its risk appetite on underwriting.

The resulting standard formula Solvency Capital Requirement (SCR) risk profile as at 31 December 2016 is shown below:



The makeup of the SCR is in line with TMKI's risk appetite.

Given that insurance is TMKI's business, understandably, underwriting risk makes up approximately two-thirds of its SCR. The remaining contributions are from risks which are tolerated in order to pursue the overall strategy.

Counterparty default risk is approximately 22% of the SCR, while the remainder is made up of market risk, which is conservatively managed according to TMK's cautious investment strategy, and operational risk, which is tolerated and mitigated wherever possible.

Underwriting risk is mitigated through significant use of outwards reinsurance (42% of GWP is ceded) which results in the relatively high counterparty default risk of 22%. This reinsured business includes risks ceded under the Designated Account Management Programme (DAMP) treaty whereby some business with major Japanese clients is 100% reinsured to TMNF.

### 4.2 Underwriting risk

This is the risk arising from fluctuations in the frequency and severity of financial losses incurred as a result of the acceptance of the insurance portfolio of business.

As highlighted above, as at 31 December 2016, underwriting risk constitutes approximately two-thirds of TMKI's the undiversified SCR.

#### **4.2.1 Key underwriting risks**

The contribution to the underwriting risk, split by line of business, is that over half is from property risks, with marine, liability and personal accident coverage making up the remainder.

Property is broken down into four areas: non-Japanese mid-corporate retail business in the UK and France; non-Japanese large corporate business; real estate (property owners) business; and Japanese commercial accounts. The other portfolios are not split down into a similar level of granularity, but they do include groupings into Japanese and non-Japanese exposures.

Liability is a split of both general liability and employers' liability risks, with a greater proportion of the book centred on general liability risks in the sport, leisure and entertainment, and retail areas. Marine is split across a variety of exposures, however, cargo and freight liability are the main drivers of the book.

#### **4.2.2 Underwriting risk assessment and mitigation**

Insurance risk is managed by agreeing TMKI's appetite for these risks annually through a business plan, which sets out the targets for volumes, pricing, line sizes and retention by class of business. Volume and price performance is monitored against the business plan monthly, and against all the components of the insurance result and risk appetite quarterly. Given that TMKI writes a significant amount of catastrophe-exposed business, catastrophe modelling software is used to model maximum probable losses from the business, with the output used as part of the monitoring against risk appetite.

TMKI's reinsurance arrangements serve to limit its overall risk exposure, as well as reduce the volatility of its claims to enhance underwriting performance.

#### **4.2.3 Underwriting risk sensitivity and concentrations**

As noted previously, the property book makes up over half of the overall underwriting risk and contains the majority of exposures from large fire risk and natural catastrophe exposures. The portfolio has a maximum line size of £300m/€360m for Japanese corporate business, US\$100m (on a PML basis) for construction and engineering business, £125m/€150m for non-Japanese corporate business, and £200m/€240m for property owners business. These are reinsured down on a per risk basis to a net exposure of £5m.

For a small selection of the Tokio Marine Group's multinational clients, TMKI offers larger line sizes than these, and they are substantially reinsured back to TMNF. This is common practice for overseas subsidiaries of multinational groups.

Other maximum line sizes are £50m/\$75mm for liability, \$85m/€68m for Japanese marine and \$45m/€36m for non-Japanese marine. These are reinsured down on a per risk basis to a net exposure of £1m for liability and £5m for marine. In addition medical expense and assistance insurance is underwritten on a PML basis for Japanese clients with maximum sums insured of €25m and £10m respectively.

TMKI is exposed to substantial fire losses from a variety of risks on its books. One of the largest scenarios is that of a 200 metre radius accumulation of risks in the same postcode in the City of London. The largest single scenario on a net basis is approximately 25% to 30% of TMKI's SCR.

The property portfolio is the main driver of TMKI's natural catastrophe exposures. The largest standalone natural catastrophe perils are losses from EU windstorm, EU earthquake and UK flood. At the 1-in-200 year return period, the exposure to these perils range between 20% to 30% of TMKI's SCR.

TMKI carries out stress and scenario testing as part of its ORSA process, which include stress testing for the most material underwriting risks as the key driver of its SCR. For the 2017 ORSA, the solvency position as at 31 December 2016 was recalculated following adverse stresses at various return periods, including those in excess of the 1-in-200 years level where regulatory capital is set for the most material underwriting risks. A reverse stress test was also undertaken, looking at a severe run of natural catastrophe events, which was deemed to be at over a 1-in-1,000 year return period.

The results of the analysis showed that the most material impact was as expected from the reverse stress test, and it amounted to a loss of approximately 50% of carried capital. The impact from the other underwriting risk stresses, which surrounded the key risks and exposures for the company, was losses of a third of carried capital or less.

The analysis indicated that none of the scenarios considered would breach the SCR and therefore TMKI's underwriting risk profile was assessed to be resilient to withstand severe shocks and is within the Board's risk appetite. The significant outwards reinsurance program in place mitigates potential losses from underwriting risk.

### **Reserving risk**

This is the risk of loss arising from claims reserves already in the balance sheet being understated, i.e. the risk that reserves are inadequate due to the inherent uncertainty of knowing the ultimate timing and quantum of liabilities incurred.

Reserving risk as at 31 December 2016 comprised approximately a third of the undiversified underwriting risk.

TMKI's Actuarial Function is responsible for estimating claims reserves on a quarterly basis, using a variety of techniques, generally based upon statistical analyses of historical loss and premium development patterns. In addition to the statistical techniques, the Actuarial Function engages with the underwriting and claims departments so that relevant information relating to reserve exposures can be included in the claims reserving process.

TMKI also engages external professional consultants to perform a detailed review of the year-end internal reserve quantification each year. The consultants' confidence in the adequacy of booked reserves is evidenced by the Statement of Actuarial Opinion that they provide.

A stress and scenario test was undertaken to look at a reserve deterioration on the long-tailed reserve liabilities, which was deemed to be a 1-in-10 year event. The result of the analysis was only a minor loss of carried capital. Whilst the recent change in the Ogden discount rate has had an effect on the reserves, the impact was in the region of a 5% reduction in carried capital and, as such, TMKI is well-placed to bear such events with low capital impact.

## **4.3 Market risk**

This is the risk arising from fluctuations in values of, or income from, assets, interest rates or exchange rates. Market risk as at 31 December 2016 comprised less than 10% of TMKI's undiversified SCR.

### **4.3.1 Market risk assessment and mitigation**

A key reason for the low contribution of Market risk to TMKI's overall risk profile is the conservative nature of TMKI's Investment Policy, which has protection of capital as the overriding aim. As a result, market risk has been consistently managed within the risk tolerances set by the Board and accepted as a by-product to risks that TMKI seeks, such as underwriting.

Market risk is measured on a quarterly basis using the Economic Scenario Generator (ESG) model and regularly using BlackRock Aladdin risk system.

TMKI's Market risk profile is monitored by looking across the various assets and liabilities. The tolerances of each risk metric are reviewed annually in the fourth quarter of each year as part of the Risk Appetite and Metric Framework update. Using an investment risk metric and an asset liability management (ALM) metric, quarterly reports are presented to the Investment Committee to update them on the market risk profile against agreed tolerances.

### **Interest rate risk**

This is the risk that the present value of the future cash flows of financial instruments will fluctuate due to changes in interest rates.

Interest rate changes will affect the valuation of liabilities, and any mismatch in the effects of interest rate change on the assets to liability valuation is the economic risk.

Interest rate risk is measured primarily by duration and managed by specifying limits within the investment guidelines.

The table below shows the level of market risk in TMKI's investment portfolio as at 31 December 2016.

Asset Sector	Market Value		Duration
	£'000s	%	
Government	73,572	23.7%	3.05
Agency	21,697	7.0%	2.35
Corporate	59,559	19.2%	1.07
Securitised	2,635	0.9%	0.07
Funds	42,990	13.9%	-0.24
Cash and cash equivalents	109,524	35.3%	0.03
	<b>309,977</b>	<b>100.0%</b>	<b>1.07</b>

\*Valuation provided on a UK GAAP basis, see section 5.1 for the SII valuation.

The weighted average duration was 1.07 years in 2016, an increase on the 0.80 year duration in 2015.

The investment guidelines specify a maturity limit of 10 years for each security and a duration limit of 3 years for each investment manager's portfolio. The investment guidelines also specify that the duration for assets should not be more than 1.5 years longer or shorter than the duration for liabilities. This is reported to the Investment Committee on a quarterly basis.

However, the investment managers are allowed to take modest tactical positions away from the benchmarks to manage any expected change in interest rates.

The Company does not use interest rate derivatives or futures to mitigate interest rate risk.

#### Foreign Exchange risk

Foreign exchange risk is potential loss arising from movements in currency exchange rates.

Foreign exchange risk is managed by investing the premiums and reserves in the same currency as the liabilities, and where any mismatches occur, these are managed with foreign exchange hedging.

#### 4.3.2 How all assets are invested according to the 'prudent person principle'

TMKI's Investment portfolio holds assets and instruments whose risks are understood, measured, managed, controlled and reported accordingly. The following is a description of the process used to ensure that all steps are taken in the interest of the policyholders and other stakeholders.

TMKI performs regular Strategic Asset Allocation (SAA) exercises that help to ensure the maintenance of a suitable composition of assets, which is required to meet the Company's risk and reward criteria. The SAA is based on the Willis Towers Watson's ESG model assumptions for the asset classes, and takes into consideration the liability cash flows provided by the Actuarial Function.

The SAA defines an asset allocation that closely optimises the desired risk and expected return, whilst matching, as close as possible, the duration of the liabilities. This exercise ensures that the assets, in particular those that cover the technical provisions, are invested with a similar duration to the liabilities. The SAA takes into account asset quality, liquidity, diversification requirements and impact on capital. This ensures that there is no excessive risk concentration.

TMKI have engaged BlackRock Investment Management (UK) Limited and Mitsubishi UFJ Asset Management (UK) Limited as external portfolio managers. A selection of fixed income benchmarks, which when combined approximate the key rate durations of the liabilities, have been allocated to each portfolio manager. These blended benchmarks are written into the investment guidelines, which are approved by the Investment Committee and form part of the portfolio managers' Investment Management Agreements.

These guidelines include restrictions on asset classes; issuers, duration and concentration, and they specify the procedures to be followed, if there was a breach. Adherence to these guidelines is monitored daily by an internal Treasury Team and reported monthly to the Finance Group and quarterly to the Investment Committee and the boards.

### 4.3.3 Market risk sensitivity and concentrations

The following exposure limits apply to each type of issuer for investment risk purposes:

- Government Agency: 25%
- Government Issued Debt: 100%
- Corporate Bonds: 75%

Sensitivity testing is undertaken on both interest rate risk and exchange rate risk, with the results making only a small impact on the carried capital in line with TMK's cautious investment strategy. The results can be seen in part (g) of note 25 of TMKI's 2016 statutory reports and accounts.

In addition, a stress test analysis of interest rate risk was undertaken by reducing the UK interest rates by 3%. This equated to a loss of approximately 3% of carried capital, driven by an increase in the discounted liabilities and partially offset by increases in the value of assets, thus demonstrating that TMKI's asset-liability profile is relatively insensitive to movements in interest rates, including a change to negative interest rates.

## 4.4 Credit risk

This is the risk of loss if another party fails to meet its financial obligations, including failure to meet them in a timely manner. TMKI's credit risk exposure as at 31 December 2016 constituted approximately a fifth of its undiversified SCR.

### 4.4.1 Credit risk assessment and mitigation

TMKI is exposed to three types of Credit risk: reinsurer credit risk, broker/ intermediary credit risk and investment credit risk.

Credit exposure and aggregate exposure to reinsurers are managed by the Reinsurance Security Committee (RISC), which assesses and approves all new reinsurers before business is placed with them. RISC also monitors the credit ratings of all reinsurers used, while the performance of premium debtors, from brokers and intermediaries, is monitored quarterly by the Credit Control Committee. The Investment Committee regularly tracks and reviews TMK's investment portfolio.

#### Reinsurer Credit risk

The maximum exposure to any one reinsurer is controlled as follows:

- Exposure metrics are calculated, depending on the reinsurer's blended credit rating, with figures capped at specific values as may be agreed from time to time by the RISC.
- The blended rating is then calculated, based upon a mixture of AM Best and S&P's ratings.
- These are set against a percentage of the capital, depending on the blended rating, with exceptions for collateralised reinsurances.

Blended Rating	Default % of Capital
AAA to AA-	10%
A+ to A-	6%
BBB+ & below	2%

This leads to a list of:

- Authorised reinsurers: within the above limits.
- Referral reinsurers: outside the above limits, but which are desired to be used by TMKI.

Intra-group reinsurances are subject to special examination, based on the following general principles:

- There is a limit for total ceded premium of 20% of gross written premium.
- A number of individual exposures exceed the matrix limits, and these have to be agreed by exception by the RISC.

Despite the risk of a reinsurer default being considered low, given that almost all of TMKI's reinsurance is placed with a reinsurer holding a credit rating of "A" or above, the risk of each reinsurer's default is modelled to take account of the "low probability, high impact" nature of this risk.

Although there is a significant counterparty default risk exposure to TMNF, this risk is mitigated with a significant amount of cash on deposit and a Letter of Credit, both held with a major Japanese bank.

A scenario test was undertaken where the assumption of TMNF's default was considered alongside the collapse of the Japanese bank holding the cash deposit and the Letter of Credit. This scenario was considered to have a return period in excess of the 1-in-200 years level, which is used for setting the regulatory capital. The results of the analysis showed that less than 20% of TMKI's carried capital would be eroded by the scenario.

This analysis showed that TMKI's credit risk profile is resilient to withstand severe shocks and is within the Board's risk appetite.

### Counterparty credit default risk

The following table shows TMKI's investment portfolio by credit rating as at 31 December 2016:

Asset Rating*	Market Value		Duration
	£'000s	%	
AAA	55,775	18.0%	1.01
AA	89,274	28.8%	2.67
A	112,124	36.2%	0.34
BBB	4,970	1.6%	1.46
Not Rated	47,834	15.4%	-0.16
	<b>309,977</b>	<b>100.0%</b>	<b>1.07</b>

\* the rating reported is per S&P.

In managing TMKI's asset portfolio, the portfolio managers use ratings from credit rating agencies, S&P, Moody's and Fitch, as well as their own internal assessments. In each case, the lowest rating available for the asset is considered. This is an appropriate process, given that it takes into account the three leading rating agencies' assessments, alongside the portfolio managers' own expert assessments. Non-rated financial investments can be predominantly attributed to a new investment into the BlackRock UCITS (Undertakings for Collective Investment in Transferable Securities) Absolute Return Fund, the average rating of the constituent investments on a look through basis is A.

The credit ratings of the issuers of each asset held within the portfolio are also used as an input to the capital model (through the ESG model) in parameterising TMKI's risk exposure. In addition, a concentration limit of 5% holding in any one issuer rated A- or higher is imposed to ensure that exposure to investment credit risk is minimised. The top exposures are reviewed by the Investment Committee on a quarterly basis.

No credit derivatives are used in the managed portfolios.

### Credit spread risk

Credit spread risk is the potential loss in market value resulting from increase in credit spread levels. This can be due to several factors, ranging from a change in a borrower's ability to repay its debt, to a change in appetite for any particular asset or asset class.

Given that TMKI invests primarily in investment grade corporate bonds, where the probability of a default is very low, the contribution of Credit Risk to TMKI's overall risk profile is also very low.

The company does not use credit derivatives to manage credit spread risk.

## 4.5 Liquidity risk

This is the risk that TMKI is unable to meet its liabilities in a timely manner because of the lack of liquid resources. Liquidity risk as at 31 December 2016 constitute less than 1% of TMKI's undiversified SCR.

### 4.5.1 Liquidity risk assessment and mitigation

Liquidity risk is mitigated through the overall strategy of ensuring that TMKI holds sufficient liquid assets in order to settle any financial obligations as they fall due. Frequent review of the ongoing liquidity position takes place in order to ensure early identification of any shortfall.

TMKI receives monthly cash flow statements from its overseas branches, advising of any material payments to be made, while longer-term forecasts are also prepared, showing when cash resources are required.

The most significant source of liquidity risk is either large claims arising from underwriting risk (mainly catastrophe-related losses) or delay in receipt of payments from reinsurers in respect of large claims.

However, if a series of large losses were to occur, the extensive outwards reinsurance that TMKI have in place would minimise the losses significantly. Further substantial reinsurances are placed with TMNF, which would be extremely unlikely to delay payments to the detriment of TMKI's liquidity position. TMKI's liquidity risk is, therefore, largely mitigated by being fully backed by its parent company's financial strength.

The existence of substantial outwards reinsurance experience within TMK and the rigorous process involved in approving reinsurers for the reinsurer pool, also mitigates the risk of Liquidity risk arising from failure of reinsurer to settle claims as when due.

Furthermore, given the conservative nature of its investment portfolio, in which liquid assets are extensively held, TMKI's exposure to liquidity risk from assets illiquidity is very low.

Finally, TMK undertakes annual stress and scenario testing exercises, in which at least one liquidity risk scenario would always be included. The results of these exercises have continued to show that TMK's exposure to liquidity risk is very low.

### 4.5.2 Amount of expected profit included in future premiums

The total amount of the expected profit included in future premiums is £8.931m.

This amount has been calculated for TMKI in line with the Lloyd's guidance used for TMKS, as it is deemed better suited to general insurance business. It is believed that this approach complies with the intent of the text within Solvency II's Commission Delegated Regulation's Article 260(2), which appears to be phrased more for life insurance firms and is very difficult to apply in a practical way to TMKI.

## 4.6 Operational risk

This is the risk that errors caused by people, processes or systems lead to losses to TMKI. Operational risk as at 31 December 2016 constitutes less than 10% of TMKI's undiversified SCR.

### 4.6.1 Operational risk assessment and mitigation

TMKI seeks to manage operational risk by recruiting high calibre staff and providing them with high quality training.

Operational risk forms a significant part of TMKI's risk register, and these risks are reviewed on a quarterly basis by the Risk Management Team. The departmental heads are responsible for identifying, assessing and controlling the risks.

There is a strong risk reporting and governance in place to ensure effective management of Operational risk. TMKI's executive management receives operational risk updates on a quarterly basis, while the Risk & Compliance Committee reviews the operational risk profile quarterly.

#### 4.6.2 Key Operational risks

TMKI's key material Operational risk exposures over the reporting period include:

- Errors in the placement of outward reinsurance: the risk that there are material errors in the placement of key outward reinsurance contracts.
- Complexities of the IT infrastructure: the risk that the costs and complexity of IT systems begin to overwhelm the business.
- Significant breach of Information Security: the risk of loss of confidential or commercially-sensitive data.
- Malicious Cyber-attacks: the risk that TMK's systems could be compromised in sustained malicious attack or attacks.
- Staff retention and recruitment: the risk of inability to recruit and retain appropriate staff to achieve business objectives.
- Response to the geopolitical and economic environment: the risk that the business is not positioned to respond to developments in the wider geo-political and economic environment.
- Reputational and financial cost of regulatory breaches: the risk of doing business in a heightened regulatory environment where breaches are becoming more costly.
- Anti-competitive behaviour and market abuse: the risk of an employee or third-party administrator engaging in anti-competitive behaviour, such as using price sensitive information for illegal gain.

#### 4.6.3 Operational risk sensitivity and concentrations

A scenario test against one of the key material operational risk exposures outlined above (errors in the placement of outward reinsurance) was undertaken.

The scenario was constructed on the basis that Reinsurance Security Criteria Procedures were not being adhered to during the process of placing a large outward reinsurance contract, which leads to significant exposure to a poor quality reinsurer.

The reinsurer collapses and a large loss occur with no outward reinsurance recovery possible from the contract. This event was considered to have a return period well in excess of the 1-in-200 level used in setting the regulatory capital requirements due to multiple control failures, the collapse of a reinsurer and a large loss all occurring.

The result of the analysis was that less than 15% of the carried capital was eroded by the scenario. This showed that TMKI's carried capital is resilient to one of the most material operational risks that TMKI could be exposed to.

### 4.7 Other material risks

In addition to the risk categories described above, TMKI considers various forms of strategic risks, including group risk and reputational risk, as other risks that could affect the delivery of its business strategy to achieve its objectives.

Material strategic risks are identified and outlined in the annual ORSA report and reviewed on a quarterly basis through ORSA updates to the Executive Risk Committee and the Risk & Compliance Committee.

Strategic risks are not modelled, but they are subject to risk management processes, such as risk and control assessments, incident and near-miss process, risk appetite and metrics, and special risk assessments. These risks are included in the Risk Register and reported quarterly via the risk dashboard.

#### Regulatory risk

This refers to the risk of loss owing to a breach of regulatory requirements or failure to respond to regulatory change.

TMKI is required to comply with the requirements specified by both the FCA and the PRA in pursuit of their regulatory objectives.

The Compliance Function is responsible for monitoring compliance with regulation and scanning the horizon for regulatory changes. The Compliance Framework outlines the broad regulatory and compliance structure that applies to all staff.

The nature of TMKI's business exposes it to controls and sanctions that regulate international trade. As a result, TMKI has processes and controls in place to screen and monitor transactions against relevant requirements, and ensure continued compliance with the regulatory framework.

### **Conduct risk**

Conduct risk is the risk of financial and/or service detriment adversely affecting the customer due to failings in the customer value chain.

TMK's conduct objective is to build, maintain and enjoy long-term relationships with its customers whether directly or indirectly via a third party. This culture of partnership is fundamental to TMK's dealings with its customers, and it applies regardless of the complexity of the risk, the sophistication of the buyer, or the length of the supply chain to the end customer.

The conduct objective is owned by the boards and it is central in achieving delivery of the six Consumer Outcomes (as set out by the FCA), which are at the heart of TMK's business. Conduct risk management applies to all business types, regardless of product line and customer type, across both open market and delegated underwriting, and is achieved through continued effective implementation of the Conduct Risk Framework.

The underwriters take ownership of the day-to-day management of conduct risk, while the Conduct Risk Committee, monitors treatment of customers and reports conduct risk metrics to the boards every quarter.

### **Brexit risks**

There is the risk that TMKI loses business as a result of the UK's exit from the EU. This also includes the risk of post-Brexit increased uncertainty in the financial markets.

This risk has been identified as a top strategic risk to TMKI in the coming years and there are several strategic initiatives in place to mitigate it, including the setting up of a Brexit Working Group, with participation from TMKI's senior management.

### **Reputational risk**

This is the risk that negative publicity regarding TMKI's business practices could lead to a loss of revenue or litigation.

In the modern digital era, reputational risk and the subsequent threat to a strong brand is becoming a major risk because loss of confidence from customers, regulators or capital providers could cause long-term harm to the business.

All staff are made aware of their responsibilities to clients and other stakeholders in mitigating reputational risk.

### **Emerging risk**

An emerging risk is "an issue that is perceived to be potentially significant but which may not be fully understood or allowed for in insurance Terms and Conditions, pricing, reserving or capital setting".

TMK is committed to continuous research into, and identification of, emerging risks and it actively undertakes research independently and via participation in industry working parties on the subject. Through effective management of emerging risks, TMK is able to identify external trends and threats, and improve risk selection and knowledge of future risk exposures.

Emerging risks may present both threats and opportunities to the business and as it has done in the past, TMKI will readily seize opportunities arising in the area of emerging risks.

### **Future business risk**

This is the risk that future earnings may be lower or more volatile than expected. This could be as a result of a number of factors:

- the cyclical nature of insurance business with fluctuations in capacity, competition and the frequency and severity of losses, as a result of both man-made and natural disasters;
- the result of competition, which can cause rates to vary sharply in the short- term;
- the lack of reinsurance or retrocession availability;
- actual claims may exceed claims provisions;
- distribution channels: TMKI is heavily dependent on brokers;
- TMKI may be affected by litigation on insurance policy wording, e.g. exclusion clauses;
- severe and rapid exchange rate fluctuations;
- regulatory or compliance changes; and,
- reputational damage as a result of real or perceived negligence or malpractice.

These risks can be mitigated to a reasonable extent by maintaining good underwriting discipline, but while their incidence is ultimately outside management control, they are managed through regular oversight from the Risk Management Team's reporting to the Risk & Compliance Committee.

## **4.8 Any other information**

There is no additional information which should be disclosed.

## 5. Valuation for solvency purposes

### 5.1 Assets

#### 5.1.1 Solvency II Valuation for each material class of asset

	UK GAAP	SII Valuation	Variance
	£'000s	£'000s	£'000s
<b>Material asset classes</b>			
Investments	265,327	265,327	-
Cash and cash equivalents	44,650	44,650	-
Reinsurer's' share of technical provisions	114,252	93,983	(20,269)
Deferred acquisition costs	8,058	-	(8,058)
Insurance debtors	68,114	10,344	(57,770)
Reinsurance debtors	1,199	1,199	-
Other debtors	23,194	23,194	-
Property, plant and equipment	499	497	(2)
Deferred tax asset	2,559	2,559	-
<b>Non-material asset classes</b>			
Intangible assets	3	-	(3)
Investment in subsidiary	2,357	2,357	-
<b>Total assets</b>	<b>530,212</b>	<b>444,110</b>	<b>(86,102)</b>

#### 5.1.2 Differences between Solvency II valuation and UK GAAP valuations

The following section describes by asset class how the class is valued under UK GAAP and any difference arising in valuation technique under Solvency II. Except where noted, there are no differences between the bases, methods and main assumptions used for each asset class in the valuation for solvency purposes as opposed to the valuation included within the financial statements.

No changes have been made during the reporting period to any of the recognition or valuation bases or estimation techniques described below with the exception of the criteria for inclusion of insurance and reinsurance debtors within the technical provisions reducing from being less than 6 months overdue as at 31 December 2015 to less than 3 months overdue as at 31 December 2016. This change was to align with the terms of trade (90 days) most commonly issued by TMKI.

#### Investments

Investment assets are managed at the TMK level on behalf of both TMKI and TMKS. These assets are largely split between government and corporate bonds, and short-term deposits. Whilst the total value of investments is unchanged between UK GAAP and Solvency II, the classification between asset sectors varies, with the breakdown as shown below:

Asset Sector	UK GAAP Valuation	SII Valuation
	£'000s	£'000s
Government	73,572	77,833
Agency	21,697	-
Corporate	59,559	76,995
Securitised	2,635	2,365
MMF and Term Deposits	64,874	64,874
Funds	42,990	42,990
	<b>265,327</b>	<b>265,327</b>

The bond portfolio is managed by the two portfolio managers; BlackRock Investment Managers and Mitsubishi Asset Management. TMK have also outsourced a number of accounting and reconciliation tasks to BlackRock Solutions (BRS).

BRS is subject to a service company audit under ISAE3402 Type 2, the results of this audit show no significant deficiencies in internal controls and processes, and accordingly TMK is able to place reliance on BRS output data. In addition, certain controls are undertaken within TMK to ensure that BRS are carrying out their required controls properly and the output information can be relied upon.

All the assets are valued by BRS as portfolio managers on a mark-to-market basis, using several third-party sources based on the schedule of data providers they maintain for each class of asset. This schedule is provided to, and reviewed by, the TMK's Treasury and Investment Accountant to confirm that assets held are traded in active markets and are priced by a BRS "Primary Provider". An active market is deemed to be a market in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis. In accordance with Solvency II and FRS 101 valuation principles, TMKI does not hold any financial instrument that are not traded on an active market.

The pricing methodologies by asset class are as follows:

- Government Bonds: UK Gilts pricings are obtained from the FTSE indices. FTSE source their prices from the UK Debt Management office.
- Government Agencies: These include supranationals and government agency bonds, which are all priced from IBOXX indices.
- Corporate Bonds: Corporate bond prices are taken daily from the IBOXX, Lehman, or JP Morgan corporate bond indices. Bonds in the indices are priced on the bid side. Bonds can be quoted in a variety of ways, including nominal spreads over benchmark securities/treasuries, spreads over swap curves, or direct price quotes as a percentage of par.

In most instances, the quote type used is a spread measure that results in daily security price changes from the movement of the underlying curve (swap or Treasury) and/or changes in the quoted spread. Where a bond is not in the index, a price is obtained from Reuter's pricing service.

Prices are regularly checked by the internal Treasury Team against Bloomberg, and any material differences are investigated with BlackRock.

Securitised Assets: There are two types of securitised assets: covered bonds and Asset Backed Securities (ABS). Covered bonds' prices are obtained from IBOXX indices and ABS prices from the Lehman indices.

Absolute Return Funds (ARFs): Absolute return UCITS funds are priced daily by BlackRock and the Fund Administrator. The pricing is provided by The Pricing Group (TPG), a dedicated pricing group within BlackRock, who ensure that appropriate valuation data sources, methodologies and controls are established, implemented and operating effectively.

All financial assets are available for sale and as such are valued under IAS 39 at fair value on a mark-to-market basis and based upon quoted bid prices at the Balance Sheet date.

Currently, TMKI's directly held investment portfolio does not contain assets which require mark-to-model valuation techniques.

### **Cash and cash equivalents**

Cash and cash equivalents included cash in hand, deposits held at call with banks, other short-term highly liquid investments with original maturities of three months or less, and bank overdrafts.

Where applicable, bank overdrafts are shown within borrowings in current liabilities. Under FRS 101, cash and cash equivalents are valued at fair value. There are no differences in the valuation basis of cash and cash equivalents under Solvency II and FRS 101 valuation principles.

### **Technical provisions – reinsurance recoverable**

The value of reinsurance recoverable as at 31 December 2016 was £94.0m on a Solvency II basis and £114.3m on a FRS 101 basis.

Technical provisions are valued by the actuaries in accordance with Solvency II principles and PRA guidance. Please refer to the Section 5.2 of the SFCR for further details and the reconciliation between UK GAAP and Solvency II valuations.

### Deferred acquisition costs

Under FRS101 acquisition costs, comprising commission and other costs related to the acquisition of new insurance contracts are deferred to the extent that they are attributable to premiums unearned at the statement of financial position date. Deferred acquisition costs are not recognised separately under Solvency II to the extent that they form part of the premium provision calculation of the technical provisions. Please refer to the Section 5.2 of the SFCR for further details.

### Insurance debtors

The value of insurance debtors was £10.3m on a Solvency II basis and £68.1m on a FRS 101 basis as at 31 December 2016.

Under the FRS 101 basis, insurance debtors include all insurance balances receivable, irrespective of the amounts overdue. Under a Solvency II valuation basis, insurance debtors are reclassified as part of the technical provisions balance (see section 5.2 for further detail). The exception to this reclassification is where balances are more than 3 months overdue. On a Solvency II basis these overdue balances are still reported as insurance debtors in the balance sheet and are not included in the technical provisions. Such overdue balances incur a capital penalty when included within the standard formula SCR calculation.

### Reinsurance debtors

On an FRS 101 basis, reinsurance debtors include all reinsurance balances receivable, irrespective of the amounts overdue. Under a Solvency II valuation basis, insurance debtors are reclassified as part of the technical provisions balance (see section 5.2 for further detail). The exception to this reclassification is where balances are more than 3 months overdue. On a Solvency II basis these overdue balances are still reported as insurance debtors in the balance sheet and are not included in the technical provisions. Such overdue balances incur a capital penalty when included within the standard formula SCR calculation. As at 31 December 2016 all reinsurance debtors were overdue by more than 3 months and thus the GAAP and Solvency II balances are the same (£1.2m).

### Other debtors

The value of other debtors at 31 December 2016 was £23.2m. This include prepayments and accrued income (£0.8m), current taxes recoverable (£2.9m), inter-company balances (£17.3m) and other sundry debtors (£2.2m).

There are no differences in the valuation basis of these balances under Solvency II and FRS 101 valuation principles.

### Property, plant and equipment

The value of property, plant and equipment was £0.5m at 31 December 2016.

Under FRS101, property, plant and equipment are stated at cost, less accumulated depreciation and any recognised impairment losses. Cost includes the original purchase price of the asset and the costs attributable to bringing the asset to its working condition for its intended use.

They are depreciated on a straight-line basis over the expected useful lives of each category of asset as follows:

Computer hardware	3 - 4 years
Office furniture and internal structures	4 - 6 years
Motor vehicles	4 - 5 years
Long-term lease	Over the term of the lease
Property (internal structure)	10 years
Property (building)	33 years

Expenditure to restore the future economic benefit of an asset, if it extends the useful life of the asset, is capitalised. Costs for repairs and maintenance are expensed.

The carrying values of property, plant and equipment are reviewed for impairment if events or changes in circumstances indicate that the carrying value may not be recoverable, and are written down immediately to their recoverable amount. Useful lives and residual values are reviewed annually and where adjustments are required, these are made prospectively.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from its continued use. Any gain or loss arising on the derecognition of an asset is included in the income statement in the period of derecognition.

Property, plant and equipment are £2,000 lower on a Solvency II valuation basis as leased fixtures and fittings are not included on a Solvency II valuation basis.

#### **Deferred tax asset**

The value of the deferred tax asset was £2.6m at 31 December 2016.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the liability method.

Deferred tax liabilities are recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised.

The carrying amount of deferred tax assets is reviewed at each year-end date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the tax rates based on the enacted or substantially enacted tax laws expected to apply in the period when the liability is settled or the asset is realised. It is charged or credited in the income statement, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also dealt with in equity.

The majority of this deferred tax asset (£2.2m) relates to UK tax losses. This £2.2m was recognised in 2016 on the basis that the losses would be utilised by 2019, based on forecast TMKI profits for 2017 to 2019. The remaining deferred tax balances relate to deductible temporary differences.

Deferred tax assets are only recognised where it is probable that taxable profit will be available against which the temporary difference can be utilised. TMKI has taken a prudent approach under Solvency II and is not recognising any additional deferred tax asset.

#### **Intangible assets**

There were no material intangible assets at 31 December 2016.

Intangible assets relating to computer software (£3,000) are included under intangible assets on a FRS 101 valuation basis, but not included on the Solvency II Balance Sheet.

#### **Investment in subsidiary**

The value of the investment in subsidiary was £2.4m at 31 December 2016.

TMKI has a related subsidiary, Tokio Marine Europe Limited (TME), which is wholly-owned and incorporated in England and Wales. The investment in TME is stated at its current net book value as at 31st December 2016 and is the same under FRS 101 and Solvency II valuation rules.

#### **5.1.3 Alternative methods for valuation of assets and liabilities for solvency purposes (per Article 263)**

TMKI does not use any alternative methods in its valuation of assets and liabilities for solvency purposes.

## 5.2 Technical provisions

### 5.2.1 Technical provisions by material line of business

The following table shows separately for each Solvency II line of business, the net best estimate and risk margin, and the total technical provisions as at 31 December 2016.

Number	SII Line of Business	Net Best Estimate	Risk Margin	Net Technical Provisions
		£'000s	£'000s	£'000s
1 & 13	Direct & Proportional Medical Expenses	6,058	461	6,519
2 & 14	Direct & Proportional Income Protection	-	-	-
3 & 15	Direct & Proportional Workers' Compensation	-	-	-
25	Non-Proportional Health Insurance	-	-	-
	<b>Total Health</b>	<b>6,058</b>	<b>461</b>	<b>6,519</b>
4 & 16	Direct & Proportional Motor Vehicle Liability	-	-	-
5 & 17	Direct & Proportional Other Motor	-	-	-
6 & 18	Direct & Proportional Marine, Aviation and Transportation	13,902	1,058	14,960
7 & 19	Direct & Proportional Fire & Other Damage to Property	75,794	5,766	81,560
8 & 20	Direct & Proportional General Liability	79,155	6,022	85,177
9 & 21	Direct & Proportional Credit & Suretyship	(24)	(2)	(26)
10 & 22	Direct & Proportional Legal Expenses	-	-	-
11 & 23	Direct & Proportional Assistance	181	14	195
12 & 24	Direct & Proportional Miscellaneous Financial Loss	3,450	262	3,711
26	Non-Proportional Casualty Reinsurance	10	1	11
27	Non-Proportional Marine, Aviation & Transportation Reinsurance	19	1	21
	Non-Proportional Property Reinsurance	3,362	256	3,618
	<b>Total Non-Life</b>	<b>175,849</b>	<b>13,378</b>	<b>189,227</b>
	<b>Total</b>	<b>181,907</b>	<b>13,839</b>	<b>195,746</b>

### 5.2.2 Bases, methods and main assumptions used for valuation of best estimate

The process of calculating each element of the best estimate for solvency purposes is covered in detail below, but the key methods are similar for each. The basic approach for each element is as follows:

1. Estimate bound premium and claims (for both earned and unearned business).
2. Calculate the corresponding undiscounted future premium and claims reserve amounts.
3. Estimate appropriate payment patterns to apply to each of these amounts.
4. Estimate the cash-flows within each future period using the relevant payment pattern.
5. Discount each future cash-flow using the appropriate risk-free interest rate.

#### Claims

Gross claims are projected to ultimate at a reserving class level using standard projection methods, including the link ratio method and the Bornhuetter-Ferguson method, with actuarial judgement applied overlaid, where appropriate. The earned claims estimates are consistent with those produced for the GAAP Technical Provisions.

Reinsurance recoveries are allowed for by applying estimated net-to-gross ratios consistent with the approach used for the GAAP technical provisions.

Projected cash-flows are estimated by applying payment patterns to the estimates of the gross claims and recoveries separately.

A "look through" basis is used for the valuation of binder business. As such, only individual declarations attached as at the valuation date are included in the Solvency II Technical Provisions.

### **Premiums**

Premium cash-flows are projected net of insurance premium tax and gross of acquisition expenses using a link ratio model, based principally on the most recent underwriting years. As with claims, the estimated premium development patterns are produced at a reserving class level and are used to derive disposal rate payment patterns to apply to the corresponding future premium amounts.

### **Bound but not incepted (BBNI) business**

Claims and premium cash-flows from BBNI business are estimated using data from the core systems showing entered but not incepted policies. Policies that have tacit renewal clauses are separately allowed for and are assumed to automatically renew if not cancelled in advance of the expiry date (typically 90 days), with an assumed proportion of lapses.

### **Future reinsurance purchases**

The methods used follow the Principle of Correspondence; hence the outwards reinsurance element of the Solvency II technical provisions at 31 December 2016 includes an allowance for the cost of unwritten XLs (2017 programme unpurchased at 2016Q4) that will protect existing unearned inwards business on the 2015 and 2016 years of account. This assumes the future management action of purchasing reinsurance.

### **Allowance for inflation**

The statistical methodology used in the calculation of the technical provisions assumes that the future will be broadly similar to the past with regard to the legal environment and business operation. The assumption is considered realistic and proportionate given the reasonably short tail nature of the business, and hence the relatively limited exposure of the business to variations in future inflation rates.

### **Expenses**

For each expense item at a Finance budget level, an estimate was made of the corresponding budget for the forthcoming calendar year and of the corresponding proportion which relate to the servicing of existing liabilities. This share was assessed on the basis that TMKI continues to write new business.

These assumptions were combined for each expense item to give an estimate of the total cost of servicing the liabilities during 2016. For future calendar years, this cost was assumed to reduce in line with the claims reserves within the Solvency II Technical provisions.

The paid claim amounts used in the analysis include all allocated loss adjustment expenses (ALAE) that were booked as paid as at the relevant date, hence they are assumed to cover future claim payments and the corresponding claims administration expenses. Unallocated loss adjustment expenses (ULAE) are not included within the paid claim amounts and so they are projected as part of the expenses analysis above.

### **Acquisition expenses**

All premium cash-flows were projected net of insurance premium tax, but gross of acquisition expenses. Acquisition expense loadings, based on actual policy data where available or historical averages otherwise, are applied separately for both inwards and outwards reinsurance cash-flows in order to produce an allowance for both inwards acquisition costs and outwards reinsurance acquisition costs.

### **Adjustment for counterparty default**

A report of outwards claims reserves split by reinsurer is produced, with all reinsurers assigned a reinsurer rating. Reinsurer ratings were sourced from Standard & Poor's and AM Best.

For each reinsurer rating, a set of default probabilities and recovery rates were then assumed. The recovery rate for a specific counterparty was the share of debts that the counterparty will still be able to honour in the case of default. The default probabilities and recovery rates used were as per those provided by EIOPA.

The projected outwards claims reserves split by reinsurer rating were then combined with the recovery rate information to produce an estimate of the overall adjustment in respect of counterparty default.

#### **Allowance for events not in data (ENID)**

The allowance for ENID uses a truncated distribution approach, under which we have assumed that the full range of reserve outcomes is represented by the reserve risk distributions produced by the Capital Modelling team.

The ENID estimate is calculated as a percentage loading, based on the reserve risk distributions of the average loss from an event beyond the 1-in-10 likelihood, the 90% TVaR (Tail Value at Risk).

A premium-weighted average approach and judgement is applied to determine how much credibility to lend to certain segments of the business, which has then been applied to the 90% TVaR amount to calculate the average loading required to cover such events. The judgement to apply a greater weighting to this business was based on the view that the more limited the historical data we have, the higher the likelihood of events not being captured.

#### **Discounting**

All relevant cash-flows have been discounted using the prescribed EIOPA yield curves as at the valuation date.

#### **Risk margin**

In line with EIOPA guidance, the risk margin is calculated using a cost of capital approach. This approach is intended to reflect the costs incurred in raising capital to support the liabilities over their lifetime.

The standard formula SCRs used in the calculation of the risk margin are produced by the TMK Finance Team. The SCRs are calculated using a process in line with that for the full SCR calculation, but only applied to business included within the Solvency II Technical provisions. That is, business legally bound at the valuation date. This is calculated as at the valuation date ('proxy SCR') and the subsequent two year-ends (t=1 and t=2), is estimated using the Standard Formula.

Thereafter, a risk-based approach is used to run-off the SCR. Under the risk based approach, the capital held to support the Technical provisions is assumed to reduce in line with the Premium risk and Reserve risk underlying the Technical provisions. The Reserve risk remaining after the first two years is assumed to reduce in line with the square root run-off method.

### **5.2.3 Uncertainty associated with the value of technical provisions**

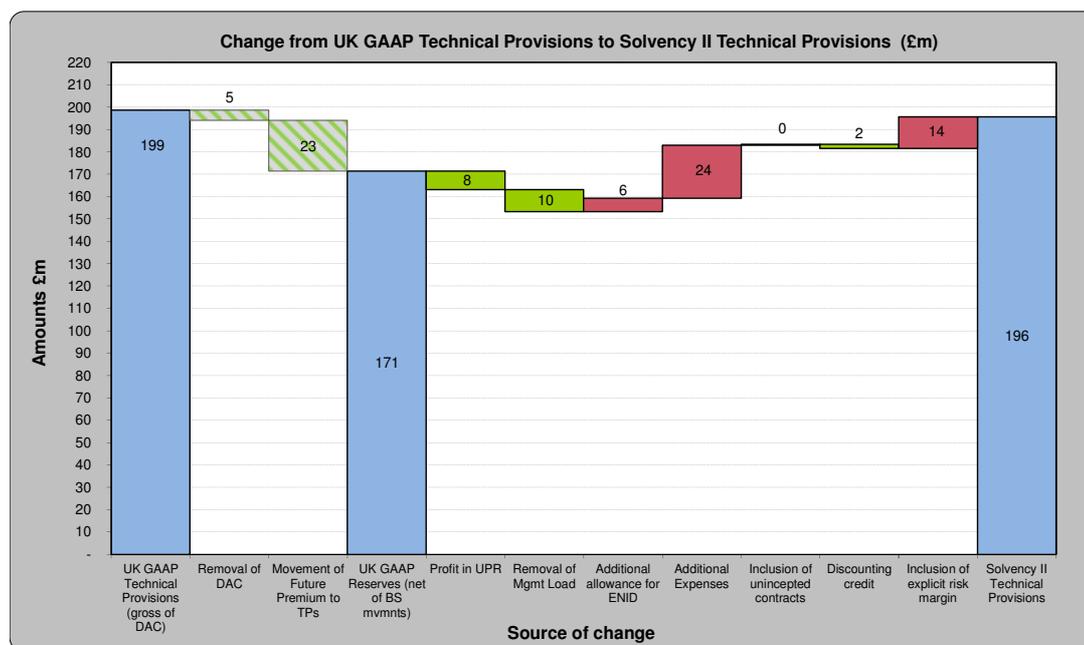
There is always uncertainty in estimating the technical provisions for insurance business. The nature of most of these issues are such that they are difficult to quantify in both likelihood and magnitude. The issues that arise in respect of the business include:

- In valuing the technical provisions, it is necessary to project numerous cash-flows, including future premiums, claims and reinsurance recoveries. None of these will develop exactly as projected and they may vary significantly from the projections.
- For certain elements of the technical provisions, for example, the allowance for ENIDs, there is very little data on which to base any analysis. This could potentially lead to increased uncertainty in the estimates for these elements of the technical provisions.
- Similarly, when writing new classes of business, it is unavoidable that there will be a lack of internal historical data on which to base actuarial analysis. Low levels of historical data can lead to an increased uncertainty in actuarial projections.
- There is greater uncertainty associated with the more recent years of account, mainly due to pricing strength and the unearned exposure to future events, such as natural catastrophes and large losses.
- Change to the personal injury Ogden discount rate: On 27 February 2017, the Lord Chancellor announced a steeper than expected cut to the discount rate used to calculate lump sum awards for UK bodily injury claims,

reducing it from 2.5% to -0.75%. The 2016 Q4 GAAP reserves have been increased by £5.6m to allow for TMKI's best estimate impact of these changes. However, at this early stage, this estimate is based on a number of underlying assumptions and hence very preliminary and highly uncertain.

#### 5.2.4 Material differences between Solvency II and UK GAAP valuation for technical provisions

The following graph shows the difference between TMKI's GAAP technical provisions as at 31 December 2016 and the corresponding Solvency II technical provisions:



#### 5.2.5 The recoverables from reinsurance contracts and Special Purpose Vehicles

The main reinsurance contracts in place for TMKI are the risk and catastrophe excess of loss treaties that separately protect the property and construction, liability and marine business segments against large and catastrophic loss events. Where appropriate, these are supplemented by facultative reinsurance arrangements and participation in pooling arrangements such as Pool Re, Gareat and Consorcio.

As part of the wider Tokio Marine Group, there are also various fronting arrangements whereby risks are written by TMKI and ceded via quota share reinsurance contracts to TMNF. The use of Special Purpose Vehicles (SPVs) is limited to specific contracts which are generally part of the fronted arrangements.

For information on the calculation of reinsurance recoveries, please see the claims and premiums sub-sections in section 5.2.2 above.

#### 5.2.6 Material changes in the relevant assumptions made for calculating the technical provisions between year-end 2015 and year-end 2016

The material changes in assumptions made in the calculation of the technical provisions compared to the previous reporting period ended 31 December 2015 are as follows:

- At 2016Q1, debtor balances were included within the technical provisions that are less than 6 months old, reflecting the change to the aging of debt to recognise average credit payment periods of 90 days. Previously, only debtor balances less than 3 months old were allowed. This is a balance sheet neutral change.
- The expense methodology was reviewed and refined in December 2016 to split between direct, indirect and branches.

## 5.3 Other liabilities

### 5.3.1 Solvency II valuation for each material class of other liabilities

	UK GAAP	SII Valuation	Variance
	£'000s	£'000s	£'000s
<b>Material liability classes</b>			
Gross technical provisions	312,908	289,729	(23,179)
Reinsurers' share of deferred acquisition costs	3,445	-	(3,445)
Insurance creditors	12,052	-	(12,052)
Reinsurance creditors	44,048	20,941	(23,107)
Deposits from reinsurers	26,347	26,347	-
Other creditors	7,176	7,176	-
<b>Non-material liability classes</b>			
Leases	-	-	-
Pension liability	-	-	-
<b>Total liabilities</b>	<b>405,976</b>	<b>344,193</b>	<b>(61,783)</b>
<b>Net capital and reserves</b>	<b>124,236</b>	<b>99,917</b>	<b>(24,319)</b>

### 5.3.2 Differences between Solvency II valuation and UK GAAP valuations

The following section describes by asset class how the class is valued under UK GAAP and any difference arising in valuation technique under Solvency II. Except where noted, there are no differences between the bases, methods and main assumptions used for each asset class in the valuation for solvency purposes as opposed to the valuation included within the financial statements.

No changes have been made during the reporting period to any of the recognition or valuation bases or estimation techniques described below with the exception of the criteria for inclusion of insurance and reinsurance creditors within the technical provisions reducing from being less than 6 months overdue as at 31 December 2015 to less than 3 months overdue as at 31 December 2016.

#### Gross technical provisions

The value of gross technical provisions at 31 December 2016 was £289.7m on a Solvency II basis and £312.9m on a FRS 101 basis.

Technical provisions are valued by the actuaries in accordance with Solvency II principles and PRA guidance. Please refer to Section 5.2 of the SFCR for further details and the reconciliation between UK GAAP and Solvency II valuations.

#### Reinsurers' share of deferred acquisition costs

Under FRS101 acquisition costs, comprising commission and other costs related to the acquisition of new insurance contracts are deferred to the extent that they are attributable to premiums unearned at the statement of financial position date. Deferred acquisition costs are not recognised separately under Solvency II to the extent that they form part of the premium provision calculation of the technical provisions. Please refer to Section 5.2 of the SFCR for further details.

#### Insurance creditors

As at 31 December 2016, there was no value for insurance creditors on a Solvency II basis, but the value was £12.1m on a FRS 101 basis.

Under FRS 101 basis, insurance creditors include all insurance balances payable irrespective of the amounts overdue. Under a Solvency II valuation basis, insurance creditors are reclassified as part of the technical provisions balance (see section 5.2 for further detail). The exception to this reclassification is where balances are more than 3 months overdue. On a Solvency II

basis these overdue balances are still reported as insurance creditors in the balance sheet and are not included in the technical provisions. As at 31 December 2016 there were no such overdue insurance creditors.

### Reinsurance creditors

The value of reinsurance creditors was £21.0m on a Solvency II basis and £44.0m on a FRS 101 basis at 31 December 2016.

On an FRS 101 basis, reinsurance creditors include all reinsurance balances payable, irrespective of the amounts overdue. Under a Solvency II valuation basis, reinsurance creditors are reclassified as part of the technical provisions balance (see section 5.2 for further detail). The exception to this reclassification is where balances are more than 3 months overdue. On a Solvency II basis these overdue balances are still reported as reinsurance creditors in the balance sheet and are not included in the technical provisions.

### Deposits from reinsurers

The value of deposits from reinsurers was £26.3m at 31 December 2016. This remains the same on both a FRS 101 and a Solvency II valuation basis.

### Other creditors

As at 31 December 2016, other creditors was £7.2m on a Solvency II basis and £10.6m on a FRS 101 basis.

On a Solvency II basis, the balance comprised of general accruals (£1.8m), current taxes payable (£0.2m), IPT payable (£3.0m) and other sundry creditors (£2.2m).

### Leases

There are no material financial leases and the material operating leases are in respect of the lease of the Company's premises. The operating lease commitments are the same under both FRS 101 and under Solvency II valuation rules.

Total future commitments under operating leases are as follows:

<b>Total future minimum lease payments</b>	<b>Land and buildings</b>	<b>Other leases</b>
	<b>£'000s</b>	<b>£'000s</b>
Within one year	1,376	178
Between one to five years	4,547	217
Later than five years	1,716	-

### Pension liability

TMKI operates a defined contribution pension plan, for which employer's contributions are charged to the income statement as they become payable. There is no liability as all amounts were fully paid in 2016.

## 5.4 Any other information

There is no additional information which should be disclosed.

## 6. Capital management

### 6.1 Own funds

#### 6.1.1 Objectives, policies and processes for managing TMKI's own funds

The objective of own funds management is to maintain, at all times, sufficient own funds to cover the SCR and MCR such that the solvency ratio (as measured against the SCR and referred to as the regulatory solvency ratio (RSR)) remains within risk appetite. These own funds are to be of sufficient quality to meet the eligibility requirements in Article 82 of the Delegated Regulation. Separate to the RSR risk appetite, the TMKI Board sets a target buffer of own funds to be held above the economic capital requirement (ECR) as determined by the TMKI capital model.

The target buffer is set at a 1 in 10 outcome while the risk appetite is for the RSR to be 120% or greater. The TMKI CRO provides a capital update quarterly in which the eligible own funds to cover the target buffer and RSR are reviewed.

As part of own funds management, TMKI maintains a medium term capital management plan (MTCMP) which sets out annual solvency projections and includes the structure of and requirements for own funds over the planning horizon.

#### 6.1.2 Structure, amount and quality of own funds

Description	31 Dec 2015 £000's (unaudited)	Movement 2016 £000's (unaudited)	31 Dec 2016 £000's
<b>Basic Own Funds</b>			
Ordinary share capital (Tier 1)	35,000	-	35,000
Share premium account (Tier 1)	55,000	-	55,000
Reconciliation reserve (Tier 1)	22,032	(14,674)	7,358
Deferred tax assets (Tier 3)	1,724	835	2,559
<b>Total Basic Own Funds</b>	<b>113,756</b>	<b>(13,839)</b>	<b>99,917</b>
<b>Ancillary Own Funds</b>			
Letters of credit (Tier 2)	-	25,000	25,000
<b>Total Own Funds</b>	<b>113,756</b>	<b>11,161</b>	<b>124,917</b>

Approval from the PRA was received in February 2016 for £25m Ancillary Own Funds (AOF) to be held in the form of a letter of credit. In addition, on 30 December 2016, TMKI applied for an additional amount of AOF, also to be held in the form of a letter of credit which would bring the total amount of AOF held by TMKI from £25m to €70m. Approval was granted for the new letter of credit by the PRA in April 2017 so the increase in AOF will not form part of the totals reported at 31 December 2016. The new letter of credit is valid until December 2019.

#### 6.1.3 Eligible amount of own funds to cover the SCR, classified by tiers

Description	31 Dec 2015 £000's (unaudited)	Movement 2016 £000's (unaudited)	31 Dec 2016 £000's
Tier 1	112,032	(14,674)	97,358
Tier 2	-	25,000	25,000
Tier 3	1,724	835	2,559
<b>Total Own Funds</b>	<b>113,756</b>	<b>11,161</b>	<b>124,917</b>

TMKI's own funds are all unrestricted and available to cover the SCR and MCR.

#### 6.1.4 Material differences between equity as shown in TMKI's financial statements and the excess of assets over liabilities as calculated for solvency purposes

The majority of asset and liability classes within TMKI's balance sheet are valued identically under both Solvency II and GAAP. The key differences are the valuation of the technical provisions, the reclassification of non-overdue debtor and creditor balances to technical provisions and certain small differences on some fixed asset classes. These differences change the amount of capital held as follows:

Description	31 Dec 2016 £000's
<b>Equity per financial statements</b>	
Ordinary share capital	35,000
Share premium account	55,000
Retained earnings	34,236
<b>Total Equity per financial statements</b>	<b>124,236</b>
Difference in net technical provisions including DAC	(1,703)
Difference in net (re)insurance debtors and creditors	(22,611)
Difference in other items	(5)
<b>SII Basic Own Funds</b>	<b>99,917</b>

#### 6.1.5 Description and the amount of each material ancillary own-fund item

The £25m of letters of credit in the above table are all held as one item with Mizuho Bank.

#### 6.1.6 Description of items deducted from own funds and of significant restriction affecting the availability and transferability of own funds within TMKI

There are no items that fall under these categories.

## 6.2 Solvency Capital Requirement and Minimum Capital Requirement

### 6.2.1 Amount TMKI's SCR and MCR as at 31 December 2016 by risk modules

The SCR and MCR at 31 December 2016 were, respectively, £100.3m and £31.0m, with the SCR split by risk modules as shown in the following table:

		Solvency Capital Requirement £000's
Non-Life Underwriting Risk	Premium and Reserve Risk	54,282
	Catastrophe Risk	37,798
	Lapse Risk	3,431
	SCF <sub>nl</sub> Pre-Diversification	95,510
	SCF <sub>nl</sub> Diversification Credit	(21,938)
	<b>SCF<sub>nl</sub> Post-Diversification</b>	<b>73,572</b>
Health Underwriting Risk	NSLT Underwriting Risk	2,241
	SLT Underwriting Risk	-
	Catastrophe Risk	634
	SCF <sub>health</sub> Pre-Diversification	2,875
	SCF <sub>health</sub> Diversification Credit	(398)
	<b>SCF<sub>health</sub> Post-Diversification</b>	<b>2,477</b>
Market Risk	Interest Rate Risk	18
	Equity Risk	-
	Property Risk	-
	Spread Risk	5,409
	Currency Risk	6,382
	Concentration Risk	-
	SCF <sub>mkt</sub> Pre-Diversification	11,809
	SCF <sub>mkt</sub> Diversification Credit	(2,460)
	<b>SCF<sub>mkt</sub> Post-Diversification</b>	<b>9,349</b>
Counterparty Default Risk	Type 1 Risk	10,370
	Type 2 Risk	16,267
	SCF <sub>def</sub> Pre-Diversification	26,637
	SCF <sub>def</sub> Diversification Credit	(1,633)
	<b>SCF<sub>def</sub> Post-Diversification</b>	<b>25,004</b>
Undiversified Basic SCR		110,401
Diversification Credit		(18,344)
Basic SCR		92,057
Operational Risk		8,277
<b>Final SF SCR</b>		<b>100,333</b>

### 6.2.2 Simplifications applied within the Standard Formula risk modules and sub-modules

In calculating the SCR, the following simplifications were applied:

- Article 59: Calculations of the risk margin during the financial year.  
The proxy SCR (required for the calculation of the risk margin) is not recalculated for the quarterly update of the technical provisions. The SCR is kept as at year end. However, the materiality of any change in the SCR is monitored via the quarterly monitoring file.
- Article 111: Simplified calculation of the risk mitigating effect.

### 6.2.3 Inputs used to calculate the Minimum Capital Requirement

The table below shows the inputs into the MCR calculation as at 31 December 2016. Note the Absolute Floor of the Minimum Capital Requirement (AMCR) is prescribed by EIOPA and is €3.7m.

	<b>£000's</b>
AMCR	3,331
Linear MCR	30,972
SCR	100,333
Combined MCR	30,972
<b>MCR</b>	<b>30,972</b>

\*AMCR is converted at October 2016 exchange rates as per Article 300.

The following information, by Solvency II Line of Business, were used to calculate the MCR:

- Net written premium in the previous 12 months to the valuation date
- Net best estimate technical provisions

### 6.2.4 Material changes to the SCR and MCR over the reporting period, and the reasons for any such change.

There were no material changes to the SCR or MCR from 31 December 2015 to 31 December 2016. This is evidenced via a quarterly risk monitoring report with prescribed triggers, agreed by the Board and applied to the material drivers of the SCR and MCR, to monitor potential deviations from the last valuation date.

## 6.3 Non-compliance with the MCR and non-compliance with the SCR

There were no instances of non-compliance with the MCR or SCR during the period from 31 December 2015 to 31 December 2016.

## 6.4 Any other information

There is no additional information which should be disclosed.

## 7. Governing body's responsibility for the SFCR

We acknowledge our responsibility for preparing the SFCR in all material respects in accordance with the PRA Rules and the Solvency II Regulations.

We are satisfied that:

- a) throughout the financial year in question, the insurer has complied in all material respects with the requirements of the PRA Rules and the Solvency II Regulations as applicable to the insurer; and
- b) it is reasonable to believe that, at the date of publication of the SFCR, the insurer has continued so to comply subsequently and will continue so to comply in future.

*On behalf of the TMKI Board*

**James Dover**

Chief Financial Officer

18 May 2017

## 8. Independent auditors report on the relevant elements of the SFCR

**Report of the external independent auditors to the Directors of Tokio Marine Kiln Insurance Limited ('the Company') pursuant to Rule 4.1 (2) of the External Audit Part of the PRA Rulebook applicable to Solvency II firms.**

**Report on the Audit of the relevant elements of the Solvency and Financial Condition Report**

### Opinion

Except as stated below, we have audited the following documents prepared by the Company as at 31 December 2016:

- the 'Valuation for solvency purposes' and 'Capital Management' sections of the Solvency and Financial Condition Report of the Company as at 31 December 2016, ('the **Narrative Disclosures subject to audit**'); and
- company templates S.02.01.02, S.17.01.02, S.23.01.01, S.25.01.21 and S.28.01.01 ('the **Templates subject to audit**').

The Narrative Disclosures subject to audit and the Templates subject to audit are collectively referred to as the '**relevant elements of the Solvency and Financial Condition Report**'.

We are not required to audit, nor have we audited, and as a consequence do not express an opinion on the **Other Information** which comprises:

- the 'Summary', 'Business and performance', 'System of governance' and 'Risk profile' elements of the Solvency and Financial Condition Report;
- company templates S.05.01.02, S.05.02.01 and S.19.01.21; and
- elements of the Narrative Disclosures subject to audit identified as 'unaudited';
- the written acknowledgement by management of their responsibilities, including for the preparation of the Solvency and Financial Condition Report ('the **Responsibility Statement**').

In our opinion, the information subject to audit in the relevant elements of the Solvency and Financial Condition Report of the Company as at 31 December 2016 is prepared, in all material respects, in accordance with the financial reporting provisions of the PRA Rules and Solvency II regulations on which they are based, as supplemented by supervisory approvals.

### Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK and Ireland) (ISAs (UK & I)), International Standard on Auditing (UK) 800 and International Standard on Auditing (UK) 805, and applicable law. Our responsibilities under those standards are further described in the *Auditors' Responsibilities for the Audit of the relevant elements of the Group Solvency and Financial Condition Report* section of our report.

### Emphasis of Matter - Basis of Accounting

We draw attention to the 'Valuation for solvency purpose' and 'Capital Management' sections of the Solvency and Financial Condition Report, which describe the basis of accounting. The Solvency and Financial Condition Report is prepared in compliance with the financial reporting provisions of the PRA Rules and Solvency II regulations, and therefore in accordance with a special purpose financial reporting framework. The Solvency and Financial Condition Report is required to be published, and intended users include but are not limited to the Prudential Regulation Authority. As a result, the Solvency and Financial Condition Report may not be suitable for another purpose. Our opinion is not modified in respect of this matter.

### Responsibilities of Directors for the Solvency and Financial Condition Report

The Directors are responsible for the preparation of the Solvency and Financial Condition Report in accordance with the financial reporting provisions of the PRA rules and Solvency II regulations which have been supplemented by the approvals by the PRA, as detailed at page 7 of this SFCR as below:

### *Approval of items of ancillary own funds*

The Directors are also responsible for such internal control as they determine is necessary to enable the preparation of a Solvency and Financial Condition Report that is free from material misstatement, whether due to fraud or error.

### **Auditors' Responsibilities for the Audit of the relevant elements of the Solvency and Financial Condition Report**

It is our responsibility to form an independent opinion, in accordance with applicable law, ISAs (UK & I) 800 and 805 as to whether the information subject to audit in the relevant elements of the Solvency and Financial Condition Report is prepared, in all material respects, in accordance with the financial reporting provisions of the PRA Rules and Solvency II regulations on which they are based. ISAs (UK & I) require us to comply with the Auditing Practices Board's Ethical Standard for Auditors.

An audit involves obtaining evidence about the amounts and disclosures in the relevant elements of the Solvency and Financial Condition Report sufficient to give reasonable assurance that the relevant elements of the Solvency and Financial Condition Report are free from material misstatement, whether caused by fraud or error. This includes an assessment of: whether the accounting policies are appropriate to the Company's circumstances and have been consistently applied and adequately disclosed; the reasonableness of significant accounting estimates made by the Directors; and the overall presentation of the relevant elements of the Solvency and Financial Condition Report. In addition, we read all the financial and non-financial information in the Solvency and Financial Condition Report to identify material inconsistencies with the audited relevant elements of the Solvency and Financial Condition Report. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report.

This report, including the opinion, has been prepared for the Directors of the Company to comply with their obligations under External Audit rule 2.1 of the Solvency II firms Sector of the PRA Rulebook and for no other purpose. We do not, in providing this report, accept or assume responsibility for any other purpose save where expressly agreed by our prior consent in writing.

### **Report on Other Legal and Regulatory Requirements**

In accordance with Rule 4.1 (3) of the External Audit Part of the PRA Rulebook for Solvency II firms we are required to read the Other Information and consider whether it is materially inconsistent with the relevant elements of the Solvency and Financial Condition Report and our knowledge obtained in the audits of the Solvency and Financial Condition Report and of the Company's statutory financial statements. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

### **PricewaterhouseCoopers LLP**

Chartered Accountants  
7 More London Riverside  
London  
SE1 2RT  
18 May 2017

The maintenance and integrity of the Tokio Marine Kiln Insurance Limited website is the responsibility of the directors; the work carried out by the auditors does not involve consideration of these matters and, accordingly, the auditors accept no responsibility for any changes that may have occurred to the Solvency and Financial Condition Report since it was initially presented on the website.

Legislation in the United Kingdom governing the preparation and dissemination of Solvency and Financial Condition Reports may differ from legislation in other jurisdictions.

## 9. Glossary

Acronym/Term	Meaning
ABS	Asset-Backed Securities
ALAE	Allocated Loss Adjustment Expenses
ALM	Asset Liability Management
AOF	Ancillary Own Funds
ARF	Absolute Return Funds
BBNI	Bound But Not Incepted
BRS	BlackRock Solutions, TMK's outsourcing providers for investment-related accounting and reconciliations tasks
CEO	Chief Executive Officer
COBS	Conduct of Business Sourcebook, which is part of the FCA Handbook
Economic Capital	The amount of risk capital to be held by a firm in order for it to cover the risks it is exposed to in a worst-case scenario
EIOPA	The European Insurance and Occupational Pensions Authority
ENIDs	Events Not In Data
ERC	Executive Risk Committee
ESG	Economic Scenario Generator
EU	European Union
FCA	Financial Conduct Authority
FRS	Financial Reporting Standard
FTSE	Financial Times Stock Exchange
GAAP	General Accepted Accounting Principles
GWP	Gross Written Premium
IAS	International Accounting Standard
IBOXX	Bond market indices used as benchmarks for asset allocation
ICF	Internal Control Framework document
IFRS	Valuation in accordance with International Financial Reporting Standards as adopted in the EU
IPT	Insurance Premium Tax
IT	Information Technology
MCR	Minimum Capital Requirement
MMF	Money Market Fund
NEDs	Non-Executive Directors
Ogden Rates	The rate usually specified by the UK government as the basis for calculating personal injury compensations by insurance companies
ORSA	Own Risk and Solvency Assessment
OWRI	Outward Reinsurance
PRA	Prudential Regulation Authority
PRR	Profit Related Remuneration
QRT	Quantitative Reporting Templates
Regulatory Capital	The level of capital a financial institution is required to hold by regulator(s) based on the firm's risk profile
Reverse Stress Testing	A form of stress test in which the starting assumption of failure of the business. It is used to examine scenarios that could potentially result in business failure
RISC	Reinsurance Security Committee
S&P	Standard & Poor's, a rating agency
SAA	Strategic Asset Allocation
SCR	Solvency Capital Requirement

Acronym/Term	Meaning
SII	Solvency II, the new regulatory regime for European insurance and reinsurance firms
SF	Standard Formula
Stress Tests	Tests used to examine the potential impact of individual events on the continues operation, profitability, capital adequacy and solvency of the business
TMHD	Tokio Marine Holdings Inc
TMK/TMKGL	Tokio Marine Kiln/Tokio Marine Kiln Group Limited
TMKI	Tokio Marine Kiln Insurance Limited
TMKS	Tokio Marine Kiln Syndicates Limited
TMNF	Tokio Marine Nichido Fire Insurance Inc
TPs	Technical Provisions
TPA	Third Party Administrator
UCITS	A European Mutual Fund; UCITS means "Undertakings for Collective Investment in transferrable Securities"
ULAE	Unallocated loss adjustment expenses
WTW	Willis Towers Watson, a global advisory, broking and financial solution providers
XL	Excess of Loss reinsurance contract

## 10. Supplementary Quantitative Reporting Templates to the SFCR

### List of required QRTs for submission with the SFCR

The following QRTs are provided with the SFCR in line with Solvency II requirements:

QRT Reference	QRT Template Name/Contents
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
S.17.01.02	Non-Life Technical Provisions
S.19.01.21	Non-Life Insurance Claims
S.23.01.01	Own Funds
S.25.01.21	Solvency Capital Requirement – for undertakings on Standard Formula
S.28.01.01	Minimum Capital Requirement – Only Life or only non-Life Insurance or Reinsurance activity

# Tokio Marine Kiln Insurance Limited

## Solvency and Financial Condition Report

### Disclosures

31 December

**2016**

(Monetary amounts in GBP thousands)

## General information

Undertaking name	Tokio Marine Kiln Insurance Limited
Undertaking identification code	391200DTAYLSAHINXK49
Type of code of undertaking	LEI
Type of undertaking	Non-life undertakings
Country of authorisation	GB
Language of reporting	en
Reporting reference date	31 December 2016
Currency used for reporting	GBP
Accounting standards	The undertaking is using local GAAP (other than IFRS)
Method of Calculation of the SCR	Standard formula
Matching adjustment	No use of matching adjustment
Volatility adjustment	No use of volatility adjustment
Transitional measure on the risk-free interest rate	No use of transitional measure on the risk-free interest rate
Transitional measure on technical provisions	No use of transitional measure on technical provisions

## List of reported templates

- 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.17.01.02 - Non-Life Technical Provisions
- S.19.01.21 - Non-Life insurance claims
- S.23.01.01 - Own Funds
- S.25.01.21 - Solvency Capital Requirement - for undertakings on Standard Formula
- S.28.01.01 - Minimum Capital Requirement - Only life or only non-life insurance or reinsurance activity

S.02.01.02

Balance sheet

Solvency II value	
C0010	
	2,559
	498
	267,685
	0
	2,357
	0
	0
	0
	157,462
	77,833
	76,995
	0
	2,635
	70,899
	36,966
	0
	0
	0
	93,983
	93,983
	91,107
	2,876
	0
	0
	10,344
	1,200
	17,270
	0
	0
	44,649
	5,924
	444,111

Assets	
R0030	Intangible assets
R0040	Deferred tax assets
R0050	Pension benefit surplus
R0060	Property, plant & equipment held for own use
R0070	Investments (other than assets held for index-linked and unit-linked contracts)
R0080	<i>Property (other than for own use)</i>
R0090	<i>Holdings in related undertakings, including participations</i>
R0100	<i>Equities</i>
R0110	<i>Equities - listed</i>
R0120	<i>Equities - unlisted</i>
R0130	<i>Bonds</i>
R0140	<i>Government Bonds</i>
R0150	<i>Corporate Bonds</i>
R0160	<i>Structured notes</i>
R0170	<i>Collateralised securities</i>
R0180	<i>Collective Investments Undertakings</i>
R0190	<i>Derivatives</i>
R0200	<i>Deposits other than cash equivalents</i>
R0210	<i>Other investments</i>
R0220	Assets held for index-linked and unit-linked contracts
R0230	Loans and mortgages
R0240	<i>Loans on policies</i>
R0250	<i>Loans and mortgages to individuals</i>
R0260	<i>Other loans and mortgages</i>
R0270	Reinsurance recoverables from:
R0280	<i>Non-life and health similar to non-life</i>
R0290	<i>Non-life excluding health</i>
R0300	<i>Health similar to non-life</i>
R0310	<i>Life and health similar to life, excluding index-linked and unit-linked</i>
R0320	<i>Health similar to life</i>
R0330	<i>Life excluding health and index-linked and unit-linked</i>
R0340	<i>Life index-linked and unit-linked</i>
R0350	Deposits to cedants
R0360	Insurance and intermediaries receivables
R0370	Reinsurance receivables
R0380	Receivables (trade, not insurance)
R0390	Own shares (held directly)
R0400	Amounts due in respect of own fund items or initial fund called up but not yet paid in
R0410	Cash and cash equivalents
R0420	Any other assets, not elsewhere shown
R0500	<b>Total assets</b>

## S.02.01.02

## Balance sheet

		Solvency II value
		C0010
<b>Liabilities</b>		
R0510	Technical provisions - non-life	289,729
R0520	<i>Technical provisions - non-life (excluding health)</i>	280,334
R0530	<i>TP calculated as a whole</i>	0
R0540	<i>Best Estimate</i>	266,956
R0550	<i>Risk margin</i>	13,378
R0560	<i>Technical provisions - health (similar to non-life)</i>	9,395
R0570	<i>TP calculated as a whole</i>	0
R0580	<i>Best Estimate</i>	8,934
R0590	<i>Risk margin</i>	461
R0600	Technical provisions - life (excluding index-linked and unit-linked)	0
R0610	<i>Technical provisions - health (similar to life)</i>	0
R0620	<i>TP calculated as a whole</i>	
R0630	<i>Best Estimate</i>	
R0640	<i>Risk margin</i>	
R0650	<i>Technical provisions - life (excluding health and index-linked and unit-linked)</i>	0
R0660	<i>TP calculated as a whole</i>	
R0670	<i>Best Estimate</i>	
R0680	<i>Risk margin</i>	
R0690	Technical provisions - index-linked and unit-linked	0
R0700	<i>TP calculated as a whole</i>	
R0710	<i>Best Estimate</i>	
R0720	<i>Risk margin</i>	
R0740	Contingent liabilities	0
R0750	Provisions other than technical provisions	
R0760	Pension benefit obligations	
R0770	Deposits from reinsurers	26,347
R0780	Deferred tax liabilities	0
R0790	Derivatives	
R0800	Debts owed to credit institutions	
R0810	Financial liabilities other than debts owed to credit institutions	
R0820	Insurance & intermediaries payables	
R0830	Reinsurance payables	20,941
R0840	Payables (trade, not insurance)	5,177
R0850	Subordinated liabilities	0
R0860	<i>Subordinated liabilities not in BOF</i>	
R0870	<i>Subordinated liabilities in BOF</i>	0
R0880	Any other liabilities, not elsewhere shown	2,000
R0900	<b>Total liabilities</b>	344,194
R1000	<b>Excess of assets over liabilities</b>	99,917





S.17.01.02

Non-Life Technical Provisions

		Direct business and accepted proportional reinsurance											Accepted non-proportional reinsurance				Total Non-Life obligation		
		Medical expense insurance	Income protection insurance	Workers' compensation insurance	Motor vehicle liability insurance	Other motor insurance	Marine, aviation and transport insurance	Fire and other damage to property insurance	General liability insurance	Credit and suretyship insurance	Legal expenses insurance	Assistance	Miscellaneous financial loss	Non-proportional health reinsurance	Non-proportional casualty reinsurance	Non-proportional marine, aviation and transport reinsurance		Non-proportional property reinsurance	
		C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0090	C0100	C0110	C0120	C0130	C0140	C0150	C0160	C0170	C0180	
R0010	Technical provisions calculated as a whole	0			0		0	0	0	0	0	0	0		0	0	0	0	
R0050	Total Recoverables from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default associated to TP calculated as a whole																	0	
<b>Technical provisions calculated as a sum of BE and RM</b>																			
<b>Best estimate</b>																			
<b>Premium provisions</b>																			
R0060	Gross	-260			0		1,099	10,341	4,139	19	0	14	577		12	12	425	16,379	
R0140	Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	17					2,576	-2,775	-384	19	0	40	82		2	1	144	-279	
R0150	<b>Net Best Estimate of Premium Provisions</b>	-277			0		-1,476	13,117	4,523	1	0	-26	495		10	10	281	16,657	
<b>Claims provisions</b>																			
R0160	Gross	9,195			0		51,648	93,557	97,453	-24	0	279	3,776		0	9	3,618	259,511	
R0240	Total recoverable from reinsurance/SPV and Finite Re after the adjustment for expected losses due to counterparty default	2,859			0		36,269	30,880	22,821	0	0	72	822		0	0	538	94,262	
R0250	<b>Net Best Estimate of Claims Provisions</b>	6,335			0		15,379	62,677	74,632	-24	0	207	2,954		0	9	3,080	165,250	
R0260	<b>Total best estimate - gross</b>	8,934			0		52,747	103,899	101,592	-5	0	293	4,353		12	21	4,044	275,890	
R0270	<b>Total best estimate - net</b>	6,058			0		13,902	75,794	79,155	-24	0	181	3,449		10	19	3,362	181,907	
R0280	<b>Risk margin</b>	461			0		1,058	5,766	6,022	-2	0	14	262		1	1	256	13,839	
<b>Amount of the transitional on Technical Provisions</b>																			
R0290	Technical Provisions calculated as a whole																	0	
R0300	Best estimate																	0	
R0310	Risk margin																	0	
R0320	<b>Technical provisions - total</b>	9,395			0		53,805	109,665	107,614	-7	0	307	4,615		13	22	4,299	289,729	
R0330	Recoverable from reinsurance contract/SPV and Finite Re after the adjustment for expected losses due to counterparty default - total	2,876			0		38,845	28,105	22,437	19	0	112	904		2	1	682	93,983	
R0340	Technical provisions minus recoverables from reinsurance/SPV and Finite Re - total	6,519			0		14,960	81,560	85,177	-26	0	195	3,711		11	21	3,618	195,746	



S.23.01.01

Own Funds

Basic own funds before deduction for participations in other financial sector as foreseen in article 68 of Delegated Regulation 2015/35

R0010	Ordinary share capital (gross of own shares)
R0030	Share premium account related to ordinary share capital
R0040	Initial funds, members' contributions or the equivalent basic own-fund item for mutual and mutual-type undertakings
R0050	Subordinated mutual member accounts
R0070	Surplus funds
R0090	Preference shares
R0110	Share premium account related to preference shares
R0130	Reconciliation reserve
R0140	Subordinated liabilities
R0160	An amount equal to the value of net deferred tax assets
R0180	Other own fund items approved by the supervisory authority as basic own funds not specified above
R0220	<b>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</b>
R0230	<b>Deductions for participations in financial and credit institutions</b>
R0290	<b>Total basic own funds after deductions</b>

Ancillary own funds

R0300	Unpaid and uncalled ordinary share capital callable on demand
R0310	Unpaid and uncalled initial funds, members' contributions or the equivalent basic own fund item for mutual and mutual - type undertakings, callable on demand
R0320	Unpaid and uncalled preference shares callable on demand
R0330	A legally binding commitment to subscribe and pay for subordinated liabilities on demand
R0340	Letters of credit and guarantees under Article 96(2) of the Directive 2009/138/EC
R0350	Letters of credit and guarantees other than under Article 96(2) of the Directive 2009/138/EC
R0360	Supplementary members calls under first subparagraph of Article 96(3) of the Directive 2009/138/EC
R0370	Supplementary members calls - other than under first subparagraph of Article 96(3) of the Directive 2009/138/EC
R0390	Other ancillary own funds
R0400	<b>Total ancillary own funds</b>

Available and eligible own funds

R0500	Total available own funds to meet the SCR
R0510	Total available own funds to meet the MCR
R0540	Total eligible own funds to meet the SCR
R0550	Total eligible own funds to meet the MCR

SCR

R0600	MCR
R0620	Ratio of Eligible own funds to SCR
R0640	Ratio of Eligible own funds to MCR

Reconciliation reserve

R0700	Excess of assets over liabilities
R0710	Own shares (held directly and indirectly)
R0720	Foreseeable dividends, distributions and charges
R0730	Other basic own fund items
R0740	Adjustment for restricted own fund items in respect of matching adjustment portfolios and ring fenced funds
R0760	<b>Reconciliation reserve</b>

Expected profits

R0770	Expected profits included in future premiums (EPIFP) - Life business
R0780	Expected profits included in future premiums (EPIFP) - Non- life business
R0790	<b>Total Expected profits included in future premiums (EPIFP)</b>

Total	Tier 1 unrestricted	Tier 1 restricted	Tier 2	Tier 3
C0010	C0020	C0030	C0040	C0050
35,000	35,000		0	
55,000	55,000		0	
0	0		0	
0		0	0	0
0	0			
0		0	0	0
0		0	0	0
7,358	7,358			
0		0	0	0
2,559				2,559
0	0	0	0	0
0				
0	0	0	0	
99,917	97,358	0	0	2,559

0				
0				
0				
0				
25,000			25,000	
0				
0				
0				
0				
25,000			25,000	0

124,917	97,358	0	25,000	2,559
97,358	97,358	0	0	
124,917	97,358	0	25,000	2,559
97,358	97,358	0	0	

100,333
30,972
124.50%
314.35%

C0060
99,917
0
92,559
0
7,358

8,931
8,931

S.25.01.21

Solvency Capital Requirement - for undertakings on Standard Formula

Gross solvency capital requirement	USP	Simplifications
C0110	C0080	C0090
9,349		
25,004		
0		
2,476		
73,572		
-18,344		
0		
92,057		
<b>Calculation of Solvency Capital Requirement</b>		
8,277		
0		
0		
0		
100,333		
0		
100,333		
<b>Other information on SCR</b>		
0		
0		
0		
0		
0		

- R0010 Market risk
- R0020 Counterparty default risk
- R0030 Life underwriting risk
- R0040 Health underwriting risk
- R0050 Non-life underwriting risk
- R0060 Diversification

R0070 Intangible asset risk

R0100 **Basic Solvency Capital Requirement**

**Calculation of Solvency Capital Requirement**

- R0130 Operational risk
- R0140 Loss-absorbing capacity of technical provisions
- R0150 Loss-absorbing capacity of deferred taxes
- R0160 Capital requirement for business operated in accordance with Art. 4 of Directive 2003/41/EC
- R0200 **Solvency Capital Requirement excluding capital add-on**
- R0210 Capital add-ons already set
- R0220 **Solvency capital requirement**

**Other information on SCR**

- R0400 Capital requirement for duration-based equity risk sub-module
- R0410 Total amount of Notional Solvency Capital Requirements for remaining part
- R0420 Total amount of Notional Solvency Capital Requirements for ring fenced funds
- R0430 Total amount of Notional Solvency Capital Requirements for matching adjustment portfolios
- R0440 Diversification effects due to RFF nSCR aggregation for article 304

S.28.01.01

Minimum Capital Requirement - Only life or only non-life insurance or reinsurance activity

Linear formula component for non-life insurance and reinsurance obligations

R0010 MCR<sub>NL</sub> Result

C0010	30,972
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Net (of reinsurance/SPV) best estimate and TP calculated as a whole	Net (of reinsurance) written premiums in the last 12 months
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- R0020 Medical expense insurance and proportional reinsurance
- R0030 Income protection insurance and proportional reinsurance
- R0040 Workers' compensation insurance and proportional reinsurance
- R0050 Motor vehicle liability insurance and proportional reinsurance
- R0060 Other motor insurance and proportional reinsurance
- R0070 Marine, aviation and transport insurance and proportional reinsurance
- R0080 Fire and other damage to property insurance and proportional reinsurance
- R0090 General liability insurance and proportional reinsurance
- R0100 Credit and suretyship insurance and proportional reinsurance
- R0110 Legal expenses insurance and proportional reinsurance
- R0120 Assistance and proportional reinsurance
- R0130 Miscellaneous financial loss insurance and proportional reinsurance
- R0140 Non-proportional health reinsurance
- R0150 Non-proportional casualty reinsurance
- R0160 Non-proportional marine, aviation and transport reinsurance
- R0170 Non-proportional property reinsurance

C0020	C0030
6,058	10,660
0	0
0	0
0	0
0	0
13,902	20,587
75,794	62,458
79,155	23,206
0	48
0	0
181	2,770
3,449	3,464
0	0
10	34
19	313
3,362	5,315

Linear formula component for life insurance and reinsurance obligations

R0200 MCR<sub>L</sub> Result

C0040	0
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Net (of reinsurance/SPV) best estimate and TP calculated as a whole	Net (of reinsurance/SPV) total capital at risk
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- R0210 Obligations with profit participation - guaranteed benefits
- R0220 Obligations with profit participation - future discretionary benefits
- R0230 Index-linked and unit-linked insurance obligations
- R0240 Other life (re)insurance and health (re)insurance obligations
- R0250 Total capital at risk for all life (re)insurance obligations

C0050	C0060

Overall MCR calculation

- R0300 Linear MCR
- R0310 SCR
- R0320 MCR cap
- R0330 MCR floor
- R0340 Combined MCR
- R0350 Absolute floor of the MCR
- R0400 **Minimum Capital Requirement**

C0070	30,972
	100,333
	45,150
	25,083
	30,972
	3,332
	30,972