Operating and financial review

2018 was an important year in terms of consistent execution against our plan and the delivery of our financial targets. Our exit from underperforming portfolios and a step-change in performance management through the forensic cell review process has improved earnings quality and resilience. With good momentum around premium rate increases and encouraging progress on our Brilliant Basics program, we are well positioned to deliver further sustainable performance improvement in 2019.

General overview

I am pleased with the performance improvement that is evident in our divisional results as well as the strategic initiatives that were successfully completed across the Group over the past 12 months.

Improving earnings quality and resilience across the Group remains a major focus, and critical to that objective are the cell review process and Brilliant Basics program. The cell review process is now well embedded across the Group and earnings quality and resilience (as measured by the spread of underwriting profit contribution by cell) has improved as evidenced by the 2018 interim and full year results.

We rolled out the Brilliant Basics program across the Group in 2018 and are already seeing early benefits of improved and more consistent risk selection and pricing. We expect further performance improvement over the next few years as we move from establishing Group-wide base-level consistency to building "brilliant" and distinctive capabilities in pricing, underwriting and claims management.

While the cell review process and Brilliant Basics program will improve underwriting discipline and help underpin more consistent financial performance, a more granular approach to capital allocation will also play a critical role in fostering a return-oriented culture and driving the right behaviours and strategic decisions. In this regard, we continue to refine our approach to capital allocation to ensure that individual cells are delivering acceptable risk-adjusted returns to maximise return on equity.

Portfolio rationalisation and simplification

During 2018, we announced a number of asset sales and/or portfolio exits that will materially reduce complexity and simplify QBE as follows:

- The sale of our Latin American Operations narrows our geographical footprint and focuses QBE's ambition on being an "international" as distinct from a "global" insurer, with meaningful operations in the major insurance hubs. During the year we completed the sale of our operations in Argentina, Brazil, Ecuador and Mexico while the sale of our operation in Colombia completed on 1 February 2019.
- On 27 March 2018, we reinsured 100% of our ongoing exposure to Hong Kong construction workers' compensation, including $166 million of potentially volatile claims liabilities. Having contributed $37 million of the division's $100 million underwriting loss in 2017, a clean exit from this business materially reduces the risk profile of our Asian business while significantly improving underwriting profitability and earnings certainty.
- On 16 May 2018, we completed the sale of our operation in Thailand. The business lacked scale and had consistently been unprofitable.
- On 3 August 2018, we announced the sale of our Australian & New Zealand travel insurance business. This business has a poor track record of profitability and lacks scale relative to major competitors. Gross written premium is around $55 million and the sale is expected to complete in 2019.
- On 11 December 2018, we announced the sale of our operations in Puerto Rico, Indonesia and the Philippines, which are held for sale as at 31 December 2018 and together represent around $100 million

of premium income. Achieving profitability in each of these businesses has proven challenging and both Puerto Rico and the Philippines carry significant catastrophe exposure.

- During the second half of 2018, we also finalised our planned exit from North American personal lines. The decision to exit reflects our sub-scale position in US personal lines and will enable further material cost efficiencies by facilitating the decommissioning of legacy systems and downsizing of the regional office footprint. The sale of renewal rights in relation to the independent agent business ($230 million of gross premium) was completed in late 2018, with policy conversion commencing on 1 January 2019, while the sale of Farmers Union Insurance ($175 million of premium) is expected to take effect on 1 April 2019.

In addition to embedding the cell review process and the Brilliant Basics program, portfolio simplification has been critical in improving the quality and consistency of our underwriting profits and I am pleased with what we achieved in 2018.

Negotiation and placement of our 2019 reinsurance program

In December 2018, we finalised the Group's 2019 reinsurance program which is effective from 1 January 2019. Since 2015, a key feature of our reinsurance program has been a deeply "in-the-money" large individual risk and catastrophe aggregate program with a single reinsurer. While this program served us well for a period, our growing exposure to a single reinsurer was not optimal and the time value of money was an important consideration, particularly in a rising interest rate environment.

With primary premium rates increasing and the Group's underwriting risk profile and consistency of performance improving, we have moved to a more conventional "out-of-the-money" reinsurance structure. The new structure provides significantly higher protection for catastrophe risk including a lower event retention, increased limit and increased coverage for non-peak zones, supplemented by catastrophe aggregate or sideways protection. As the cost of large individual risk and catastrophe claims decline in line with our improving risk profile, this new structure should offer shareholders greater returns over time and strikes an appropriate balance between optimising balance sheet protection, capital credit, cost and earnings variability.

The 2019 program will cost around $125 million less than the expiring program and the capital credit afforded by the cover is stronger than the expiring cover and will result in an incremental capital credit of around $200 million for S&P rating agency purposes and an incremental APRA PCA benefit of around $285 million (due to a reduction in the ICRC capital charge).

Notwithstanding the aforementioned benefits, the "out-of-the-money" nature of the new structure means the potential variability of modelled reinsurance recoveries versus actual reinsurance recoveries is higher, resulting in an increased probability of actual earnings differing from planned earnings.

As a consequence, we are budgeting for an increase in the net allowance for large individual risk and catastrophe claims to around $1.4 billion from $1.2 billion in 2018.

Net of the reinsurance cost savings, we are therefore budgeting for an underwriting profit headwind of around $50 million to $100 million which is allowed for in our 2019 targeted combined operating ratio.

Divisional reporting and consolidation

As announced on 31 October 2018, to further simplify our operations and build a more streamlined, agile and customer-oriented business, effective 1 January 2019 QBE's operations comprise three divisions:

International – includes European Operations and Asia (Hong Kong, Singapore, Malaysia and Vietnam).

Australia Pacific – includes Australia, New Zealand, the Pacific and India.

North America – will continue as is.

This restructure and resulting simplification will contribute to the Group's efficiency agenda with much of the administration and governance of the former standalone Asia Pacific Operations absorbed by the significantly larger and better resourced International and Australia Pacific divisions.

In conjunction with the divisional consolidation, we will also simplify the way we communicate our divisional results to the market. We will no longer separately identify Equator Re as a standalone entity; the captive's results will instead be eliminated into the relevant divisional results to provide a more holistic view of performance in each of the operating divisions – Australia Pacific, International and North America.

Operational efficiency program

Having consolidated our regional footprint into three divisions, we are now focused on making our operations more effective and streamlined, consolidating technology tools, reducing IT run costs and re-engineering and automating processes.

Gross written premium[1] (US$)

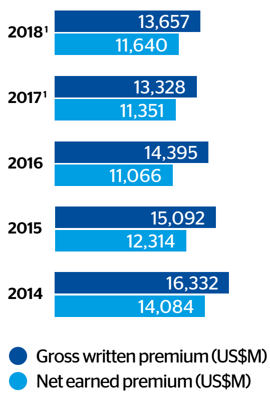
$13,657M

2% from 2017

Net earned premium[1] (US$)

$11,640M

3% from 2017



1 Continuing operations basis.

With that in mind, we recently embarked on a three-year operational efficiency program targeting more than $200 million of gross cost savings by 2021 translating into net savings of $130 million over the same time horizon after underlying inflation and further investment in the Brilliant Basics program, technology and digitisation. From our 2018 cost base of $1.8 billion and an expense ratio of 15.2% [1,2], we are targeting an expense ratio of less than 14% by 2021, inclusive of the benefit of very modest and selective premium growth.

The financial impact of efficiency benefits will be relatively modest in 2019 reflecting the earning of net cost savings of around $40 million while net earned premium will reflect the full year impact of previously discussed disposals. At the same time, we expect to incur one-off restructuring costs in 2019 that will not be reported as part of our underwriting results.

Our exit from underperforming portfolios, momentum around premium rates and underwriting performance improvement, the successful placement of our 2019 reinsurance program and the commencement of our new efficiency program position us well to deliver further sustainable performance improvement in 2019.

2018 full year result

With respect to the recently announced 2018 full year result, I would like to discuss three broad areas:

1. Financial performance.
2. Investment performance and strategy.
3. Financial strength and capital management.

1. Financial performance

QBE reported a statutory net profit after tax of $390 million, a significant turnaround from a net loss of $1,249 million in 2017, while cash profit after tax also rebounded strongly to $715 million from a loss of $262 million in the prior year.

Adjusted net profit after tax recovered to $420 million [1] from a net loss of $228 million [3,4,5] in 2017, reflecting significantly improved underwriting profitability partly offset by weaker investment returns.

The Group's combined operating ratio improved to 95.7% [1,2,6] from 103.9% [2,3,5,6] in the prior year, primarily due to a significant improvement in the attritional claims ratio and a reduction in catastrophe claims following record industry losses in 2017.

Looking briefly at divisional performance, the key themes to emerge from the 2018 result are set out below:

Improved performance in North America after a difficult 2017

North American Operations reported an improved combined operating ratio of 97.9% [6] compared with 109.1% [5,6] in the prior year.

While catastrophe experience improved significantly from the record levels experienced in the prior year, 2018 was still an above average year impacted by multiple hurricanes and wildfires.

The combined operating ratio also benefited from a 2.8% (excluding Crop) improvement in the attritional claims ratio reflecting more granular performance management driven by the cell review process coupled with early benefits from the Brilliant Basics program including improved risk selection and enhanced pricing capability.

Disciplined performance management and enhanced pricing capability contributed to an average premium rate increase of 4.1% compared with 0.7% in the prior year.

Good progress on Asia Pacific remediation with a return to underwriting profit in the second half of 2018

Asia Pacific Operations finished the year strongly with a combined operating ratio of 104.2% [1,6] compared with 115.5% [6] in the prior year and 108.5% [1,6] in the first half of 2018, underpinned by a 5.0% improvement in the attritional claims ratio. Performance improvement gathered momentum as the year progressed culminating in a return to underwriting profitability in the second half with a combined operating ratio of 99.5% [1,6].

Premium income contracted 15% on a constant currency basis reflecting aggressive remediation including the sale of our business in Thailand, exiting Hong Kong construction workers' compensation and the shedding of significant higher hazard marine, property and engineering business, particularly in Hong Kong, Singapore and Indonesia.

While key insurance markets remain competitive, Asia Pacific Operations achieved an average premium rate increase of 1.0% compared with a reduction of 2.3% in the prior period.

1 Excludes transaction to reinsure Hong Kong construction workers' compensation liabilities.
2 Continuing operations basis.
3 Excludes one-off impact on the Group's underwriting result due to the Ogden decision in the UK.
4 Excludes a $700 million non-cash goodwill impairment charge and a $230 million non-cash write-down of deferred tax assets.
5 Excludes transaction to reinsure US liabilities.
6 Excludes the impact of changes in risk-free rates used to discount net outstanding claims.

European Operations' improved current accident year profitability underpinned by a lower attritional claims ratio

European Operations recorded another strong result with the combined operating ratio improving to 94.8%[1] from 95.2%[1,2] in the prior year due to a 2.8% improvement in the attritional claims ratio which more than offset a reduced level of positive prior accident year claims development.

While competition remains intense as evidenced by lower new business volumes, the soft pricing cycle has abated with an average premium rate increase of 4.4% representing a welcome turnaround from the 0.2% average premium rate reduction in the prior year. Although remaining vigilant with respect to underwriting discipline, gross written premium grew 6% on a constant currency basis indicating modest but pleasing volume growth.

Given significant uncertainty surrounding Brexit, it is comforting to report that we now have a fully operational and well-capitalised insurance and reinsurance company located in Belgium and successfully renewed our existing business in continental Europe at the recently completed 1 January 2019 renewals.

Further improvement in Australian & New Zealand Operations' result quality and strong pricing momentum

Despite further moderation in lenders' mortgage insurance (LMI) earnings and the level of positive prior accident year claims development, Australian & New Zealand Operations' performance continues to improve with the division recording a combined operating ratio of 91.9%[1], underpinned by a 2.9% (excluding LMI) improvement in the attritional claims ratio. The cell review discipline coupled with early benefits of the Brilliant Basics program contributed to a meaningful improvement in earnings quality and resilience (as measured by the spread of underwriting profit contribution by cell).

The combined operating ratio of our LMI business increased as a result of higher net commissions due to revised reinsurance and a lengthening of the assumed premium earning pattern in light of slower claims emergence. Despite some reduction in property prices, lending practices continue to improve and arrears rates are trending broadly in line with expectations. We have taken the opportunity to purchase 30% quota share reinsurance on the 2019 underwriting year from a panel of external reinsurers on favourable terms.

Pricing momentum accelerated as the year progressed (from already strong levels) with premium rate increases averaging 7.3%[3] across 2018 compared with 6.1%[3] in the prior period and 6.6%[3] in the first half of 2018.

2. Investment performance and strategy

Our investment portfolio delivered a net investment yield of 2.2% compared with 3.1% in the prior year. This was at the bottom end of our 2.25%–2.75% target range reflecting especially volatile markets in the final quarter of 2018.

Fixed income assets generated a 1.8% return compared with 2.0% in the prior year. Returns were adversely impacted by higher US Treasury yields and wider global credit spreads. Growth asset returns moderated to 6.2% from 13.3% in the prior year.

Active duration management enhanced fixed income returns. While yields rose during the first half of 2018 we held duration around 1.5 years thereby minimising mark-to-market capital losses. During the second half, we extended duration to 2.1 years enabling us to capture more of the December global bond market rally. During December we also took advantage of the equity market weakness and increased our exposure to growth assets which finished the year at 13.7% of total cash and investments.

As at 31 December 2018, the running yield of the fixed income portfolio was 2.2%, up from 1.7% a year earlier. During 2019, we intend to manage fixed income duration in a 2.0–2.5 year range and growth assets within a 10%–15% range of total cash and investments which together should support our 2019 net investment return target range of 3.0%–3.5%[4].

3. Financial strength and capital management

The Group's capital position remains strong when measured against both regulatory and rating agency capital requirements. Our APRA PCA multiple increased to 1.78x from 1.64x at 31 December 2017 and the excess above Standard & Poor's (S&P) 'AA' minimum capital levels increased.

Our improved capital strength reflects stronger earnings for 2018, the benefit of de-risking initiatives undertaken during the year (such as the disposal of non-core businesses and a reduction in our catastrophe exposure) and a material reduction in insurance risk charges due to the more traditional reinsurance program effective 1 January 2019. These positive impacts were partly offset by capital management initiatives and by the stronger US dollar which adversely impacted reported shareholders' funds.

As announced in February 2017, QBE established a three-year cumulative on-market share buyback facility of up to A$1 billion, with a target of acquiring not more than A$333 million in any one calendar year. During 2018, QBE purchased A$333 million of QBE shares resulting in the cancellation of 31.3 million shares or 2.2% of issued capital. Since commencement of the buyback, QBE has purchased A$472 million of QBE shares resulting in the cancellation of 44.2 million shares or 3.2% of issued capital.

At 31 December 2018, QBE's debt to equity ratio was 38.0%, down from 40.8% at 31 December 2017 and slightly above the benchmark range of 25%–35%, reflecting the debt buybacks undertaken during the first half of 2018, which were partly offset by the impact of the stronger US dollar and the share buyback.

The probability of adequacy (PoA) of outstanding claims was broadly stable at 90.1%, around the mid-point of our targeted PoA range of 87.5%–92.5%.

1 Excludes the impact of changes in risk-free rates used to discount net outstanding claims.
2 Excludes one-off impact on the Group's underwriting result due to the Ogden decision in the UK.
3 Excludes premium rate changes relating to CTP.
4 Assumes risk-free rates as at 31 December 2018.

Operating and financial performance

Summary income statement

FOR THE YEAR ENDED 31 DECEMBER	STATUTORY RESULT 2018 US$M	STATUTORY RESULT 2017 US$M	ADJUSTMENTS 2018 US$M	ADJUSTMENTS 2017 US$M	ADJUSTED RESULT 2018[1] US$M	ADJUSTED RESULT 2017[2,3,4] US$M
Gross written premium	**13,657**	13,328	**–**	–	**13,657**	13,328
Gross earned premium	**13,601**	13,611	**–**	–	**13,601**	13,611
Net earned premium	**11,640**	11,351	**190**	417	**11,830**	11,768
Net claims expense	**(7,405)**	(8,114)	**(166)**	(297)	**(7,571)**	(8,411)
Net commission	**(1,957)**	(1,938)	**6**	–	**(1,951)**	(1,938)
Underwriting and other expenses	**(1,798)**	(1,806)	**5**	2	**(1,793)**	(1,804)
Underwriting result	**480**	(507)	**35**	122	**515**	(385)
Net investment income on policyholders' funds	**346**	447	**–**	–	**346**	447
Insurance profit (loss)	**826**	(60)	**35**	122	**861**	62
Net investment income on shareholders' funds	**201**	311	**–**	–	**201**	311
Financing and other costs	**(305)**	(302)	**–**	–	**(305)**	(302)
Gains (losses) on sale of entities and businesses	**12**	(1)	**–**	–	**12**	(1)
Unrealised losses on assets held for sale	**(25)**	–	**–**	–	**(25)**	–
Share of net losses of associates	**(2)**	(1)	**–**	–	**(2)**	(1)
Amortisation and impairment of intangibles	**(80)**	(740)	**–**	700	**(80)**	(40)
Profit (loss) before income tax from continuing operations	**627**	(793)	**35**	822	**662**	29
Income tax expense	**(72)**	(423)	**(5)**	199	**(77)**	(224)
Profit (loss) after income tax from continuing operations	**555**	(1,216)	**30**	1,021	**585**	(195)
Loss after income tax from discontinued operations	**(177)**	(37)	**–**	–	**(177)**	(37)
Non-controlling interests	**12**	4	**–**	–	**12**	4
Net profit (loss) after income tax	**390**	(1,249)	**30**	1,021	**420**	(228)

1 Excludes transaction to reinsure Hong Kong construction workers' compensation liabilities.
2 Excludes one-off impact on the Group's underwriting result due to the Ogden decision in the UK.
3 Excludes transaction to reinsure US liabilities.
4 Excludes a $700 million non-cash goodwill impairment charge and a $230 million non-cash write-down of deferred tax assets.

Overview of the 2018 result

The Group reported a 2018 statutory net profit after tax of $390 million compared with a loss of $1,249 million in the prior year. The material improvement is primarily due to significantly reduced catastrophe activity coupled with the non-recurrence of a $700 million non-cash goodwill impairment charge and a $230 million non-cash write down of deferred tax assets.

Continuing operations reported a statutory net profit after tax of $567 million compared with a loss of $1,212 million in the prior year while discontinued operations reported a statutory net loss after tax of $177 million in 2018 compared with a loss of $37 million in the prior year, primarily as a result of higher than expected net claims costs and charges associated with the sale transactions.

The Group's effective tax rate was 11%, materially different from the prior period which was distorted by the significant catastrophe claims in North America in 2017 where substantial deferred tax assets precluded the recognition of further tax losses. The low effective tax rate reflects increased profits in North America and Bermuda, which benefit from the utilisation of previously unrecognised tax losses, profits in the UK (where the corporate tax rate is lower than Australia) and the recognition of additional North American deferred tax assets.

Excluding amortisation of intangibles and other non-cash items, statutory cash profit after tax for the year was $715 million, up from a loss after tax on a cash basis of $262 million in the prior period.

Cash profit return on equity was 8.0% [1], up from (1.4)% [1] in the prior year.

The preceding table also shows the statutory result excluding items which materially distort key performance indicators.

The 2018 adjusted statutory result in the preceding table excludes the one-off transaction to reinsure Hong Kong construction workers' compensation liabilities which reduced net earned premium by $190 million and net claims expense by $166 million, whilst adversely impacting commission and underwriting expenses by $6 million and $5 million respectively. The transaction impacts year-on-year comparison of net earned premium and underwriting ratios, depressing the net claims ratio and inflating the combined commission and expense ratio.

1 Cash profit ROE from continuing operations excluding gains (losses) on disposals.

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The 2017 adjusted statutory result in the preceding table is similarly presented after excluding:

- a $139 million increase in the Group's net central estimate of outstanding claims reflecting the increase in the statutory discount rates applicable to UK personal injury liabilities (the Ogden decision) and a related $2 million reinsurance charge with an associated $31 million tax benefit;
- a transaction to reinsure US commercial auto run-off liabilities which reduced net earned premium by $415 million and net claims expense by $436 million while adversely impacting underwriting expenses by $2 million;
- a $700 million non-cash impairment charge pertaining to the carrying value of North American Operations' goodwill; and
- a $230 million non-cash write-down of the deferred tax asset in our North American Operations following the enacted reduction in the US corporate tax rate to 21% from 35%.

The underwriting results in the preceding table are also presented on a continuing operations basis with the results of our Latin American Operations presented separately as discontinued operations for both the current and prior year.

Further details of the Group's disposal activities are set out in note 7.1 to the financial statements.

Unless otherwise stated, the commentary following refers to the Group's result on the basis described above.

The Group reported a 2018 adjusted net profit after tax of $420 million compared with a loss of $228 million in the prior year, including a profit after tax from continuing operations of $597 million compared with a loss of $191 million in the prior year.

On a constant currency basis, gross written premium increased by 3% reflecting premium rate driven growth in North American, European and Australian & New Zealand Operations, largely offset by a remediation-driven reduction in Asia Pacific Operations and a significant reduction in NSW CTP premium following recent legislative reform. On the same basis, net earned premium increased by 0.6% relative to the prior period.

The combined operating ratio improved to 95.7% [1] from 103.9% [1] in the prior year, primarily reflecting significantly reduced catastrophe activity and a strong improvement in the attritional claims ratio.

The net investment return on policyholders' funds fell to 2.3% from 2.9% in the prior year, contributing 2.9% to the insurance profit margin compared with 3.8% in 2017. While returns on fixed income assets were marginally lower reflecting mark-to-market losses on sovereign and corporate bonds, growth asset returns were substantially down on the prior year.

The Group reported an insurance profit of $861 million, up substantially from $62 million in the prior year, with significantly improved underwriting profitability partly offset by lower investment income. The insurance profit margin increased to 7.3% from 0.5% in 2017.

Consistent with the reduction in investment income on policyholders' funds, investment income on shareholders' funds was significantly lower at $201 million compared with $311 million in 2017.

Financing and other costs increased slightly to $305 million from $302 million in the prior year. While the prior year included the net cost of the class action, the current year included significant costs associated with foreign exchange contracts coupled with other one-off costs. The Group's cost of borrowings reduced to $205 million from $212 million in the prior year.

1 Excludes the impact of changes in risk-free rates used to discount net outstanding claims.

Reconciliation of cash profit [1]

FOR THE YEAR ENDED 31 DECEMBER	2018 US$M	2017 US$M
Profit (loss) after tax from continuing operations including NCI	**555**	(1,216)
Loss attributable to non-controlling interests (NCI)	**12**	4
Profit (loss) after tax from continuing operations	**567**	(1,212)
Discontinued operations		
Operating loss from discontinued operations after tax	**(57)**	(32)
Gain on sale of discontinued operations after tax	**97**	(5)
Reclassification of foreign currency translation reserve [2]	**(217)**	–
Loss after tax from discontinued operations	**(177)**	(37)
Net profit (loss) after tax	**390**	(1,249)
Amortisation and impairment of intangibles after tax [3]	**108**	757
Reclassification of foreign currency translation reserve [2]	**217**	–
Write down of deferred tax asset	**–**	230
Net cash profit (loss) after tax	**715**	(262)
Return on average shareholders' funds – cash basis (%)	**8.0** [4]	(1.4) [4]
Basic earnings per share – cash basis (US cents)	**53.1**	(18.9) [5]
Dividend payout ratio (percentage of cash profit) [6]	**70%**	na

1 Cash profit is presented on a statutory basis.
2 The sale of operations in Argentina, Brazil, Ecuador and Mexico gave rise to a foreign currency translation reserve (FCTR) reclassification charge (out of equity into the profit or loss statement). This is a non-cash item and does not impact shareholders' funds or QBE's regulatory or rating agency capital base. Refer Note 7.1.1 for further details.
3 $33 million of pre-tax amortisation expense is included in underwriting expenses (2017 $29 million).
4 Cash profit ROE from continuing operations excluding gains (losses) on disposals.
5 As previously reported.
6 Dividend payout ratio is calculated as the total AUD dividend divided by cash profit converted to AUD at the average rate of exchange for the period.

Premium income

Gross written premium increased 2% to $13,657 million from $13,328 million in the prior year.

On an average basis and compared with 2017, the Australian dollar depreciated against the US dollar by 3% while sterling and euro appreciated against the US dollar by 3% and 4% respectively. Currency movements adversely impacted gross written premium by $31 million relative to the prior year.

Gross written premium increased 3% on a constant currency basis. This reflects premium rate driven growth in North American and European Operations, partly offset by a remediation-led contraction in Asia Pacific Operations. Premium growth in Australian & New Zealand Operations was adversely impacted by legislative changes in NSW CTP that drove a significant premium rate reduction.

The Group achieved an average premium rate increase of 5.0% [1] during the year compared with 1.8% [1] in 2017 with improved pricing conditions enjoyed in all divisions. Premium rate momentum accelerated in Australian & New Zealand Operations from an already strong level.

North American Operations reported a 3% increase in gross written premium, underpinned by an average premium rate increase of 4.1% compared with only 0.7% in the prior period. Growth in accident & health within Specialty coupled with modest growth in P&C as well as Crop was partly offset by the full year impact of the cancellation of two large programs in 2017.

Although up 8% on a headline basis, European Operations' gross written premium was up 6% on a constant currency basis. Improved pricing conditions gave rise to an average premium rate increase of 4.4% compared with a reduction of 0.2% in the prior period. Growth reflects the improved rating environment and targeted growth in profitable portfolios such as Continental European insurance, reinsurance life and accident and the improved rating environment in several London market portfolios.

Australian & New Zealand Operations reported a 2% increase in gross written premium on a constant currency basis. An average premium rate increase (excluding CTP) of 7.3% compared with 6.1% in the prior period was largely offset by a significant reduction in NSW CTP premium following legislative reform and the non-renewal of two travel insurance credit card portfolios. Excluding the impact of CTP premium rate reductions, gross written premium increased 5% on a constant currency basis, broadly consistent with pricing. Retention was stable across the portfolio.

Asia Pacific gross written premium fell 15% on a constant currency basis. This reflected our exits from Thailand, Hong Kong construction workers' compensation and Indonesian marine hull businesses as well as the accelerated remediation of marine, property and engineering, particularly in Hong Kong and Singapore. Although the region remains competitive, we achieved an average premium rate increase of 1.0% during the year compared with a reduction of 2.3% in the prior period.

Net earned premium increased 0.5% to $11,830 million from $11,768 million in the prior year with negligible foreign exchange impact.

1 Excludes premium rate changes relating to CTP.

Underwriting performance

Key ratios – Group

FOR THE YEAR ENDED 31 DECEMBER	2018		2017	
	STATUTORY %	ADJUSTED[1] %	STATUTORY %	ADJUSTED[2,3] %
Net claims ratio	**63.6**	**64.0**	71.5	71.5
Net commission ratio	**16.9**	**16.4**	17.1	16.5
Expense ratio	**15.4**	**15.2**	15.9	15.3
Combined operating ratio	**95.9**	**95.6**	104.5	103.3
Adjusted combined operating ratio [4]	**96.0**	**95.7**	105.1	103.9
Insurance profit (loss) margin	**7.1**	**7.3**	(0.5)	0.5

1 Excludes transaction to reinsure Hong Kong construction workers' compensation liabilities.
2 Excludes transaction to reinsure US liabilities.
3 Excludes one-off impact on the Group's underwriting result due to the Ogden decision in the UK.
4 Excludes the impact of changes in risk-free rates used to discount net outstanding claims.

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Divisional performance

Contributions by region

FOR THE YEAR ENDED 31 DECEMBER	GROSS WRITTEN PREMIUM		NET EARNED PREMIUM		COMBINED OPERATING RATIO		INSURANCE PROFIT BEFORE INCOME TAX	
	2018 US$M	2017 US$M	2018 US$M	2017 US$M	2018 %	2017 %	2018 US$M	2017 US$M
North American Operations [1]	**4,711**	4,556	**3,569**	3,541	**96.9**	108.8	**221**	(236)
European Operations [2]	**4,355**	4,049	**3,505**	3,212	**95.0**	93.4	**311**	335
Australian & New Zealand Operations	**3,992**	4,024	**3,519**	3,480	**92.4**	91.9	**420**	438
Asia Pacific Operations [3]	**633**	740	**538**	653	**103.7**	115.3	**(12)**	(93)
Equator Re	**1,486**	1,580	**664**	847	**91.0**	141.3	**85**	(323)
Equator Re elimination [4]	**(1,485)**	(1,567)	**–**	–	**–**	–	**–**	–
Corporate adjustments	**(35)**	(54)	**35**	35	**–**	–	**(164)**	(59)
Group adjusted	**13,657**	13,328	**11,830**	11,768	**95.6**	103.3	**861**	62
Reinsurance transactions	**–**	–	**(190)**	(415)	**0.3**	–	**(35)**	19
Ogden adjustment	**–**	–	**–**	(2)	**–**	1.2	**–**	(141)
Group statutory	**13,657**	13,328	**11,640**	11,351	**95.9**	104.5	**826**	(60)
Direct and facultative	**12,599**	12,289	**10,708**	10,471	**96.4**	104.1	**703**	(22)
Inward reinsurance	**1,058**	1,039	**932**	880	**89.8**	108.3	**123**	(38)
Group statutory	**13,657**	13,328	**11,640**	11,351	**95.9**	104.5	**826**	(60)

1 Excludes transaction to reinsure US liabilities in 2017.
2 Excludes one-off adverse impact on the Group's underwriting result due to the Ogden decision in the UK in 2017.
3 Excludes transaction to reinsure Hong Kong construction workers' compensation liabilities in 2018.
4 Non-eliminated Equator Re gross written premium relates to minority interests in Lloyd's Syndicate 386.

Incurred claims

The Group's net claims ratio improved to 64.0% from 71.5% in the prior year, reflecting significantly reduced catastrophe incidence and a strong improvement in the attritional claims ratio.

The table below provides a summary of the major components of the net claims ratio.

FOR THE YEAR ENDED 31 DECEMBER	2018		2017	
	STATUTORY %	ADJUSTED[1] %	STATUTORY %	ADJUSTED[2,3] %
Attritional claims	**53.2**	**52.3**	56.6	54.5
Large individual risk and catastrophe claims	**10.0**	**9.8**	15.9	15.4
Impact of reinsurance transactions	**(0.1)**	**–**	(0.7)	–
Claims settlement costs	**3.3**	**3.3**	3.1	3.0
Claims discount	**(2.0)**	**(2.0)**	(2.2)	(2.1)
Net incurred central estimate claims ratio (current accident year)	**64.4**	**63.4**	72.7	70.8
Changes in undiscounted prior accident year central estimate	**(1.0)**	**(1.0)**	(0.5)	(0.4)
Impact of reinsurance transactions	**(1.3)**	**–**	(3.0)	–
Impact of Ogden	**–**	**–**	1.2	–
Changes in discount rates	**(0.1)**	**(0.1)**	(0.6)	(0.6)
Movement in risk margins	**0.1**	**0.1**	0.7	0.8
Other (including unwind of prior year discount)	**1.5**	**1.6**	1.0	0.9
Net incurred claims ratio (current financial year)	**63.6**	**64.0**	71.5	71.5

1 Excludes transaction to reinsure Hong Kong construction workers' compensation liabilities.
2 Excludes one-off impact on the Group's underwriting result due to the Ogden decision in the UK.
3 Excludes transaction to reinsure US liabilities.

Excluding Crop insurance and LMI, the attritional claims ratio reduced to 50.2% from 53.1% in the prior period, reflecting significant improvement across all divisions.

Excluding Crop insurance, North America Operations' attritional claims ratio improved 2.8% relative to the prior year driven mainly by underwriting and pricing initiatives in our corporate, affiliated, directors & officers and trade credit & surety portfolios.

European Operations' attritional claims ratio also improved 2.8% reflecting underlying improvement coupled with the unwind of the post-Brexit devaluation of sterling and the non-recurrence of one-off reinsurance expense which suppressed net earned premium in the prior year.

Excluding LMI, Australian & New Zealand Operations' attritional claims ratio fell by 2.9% with improvement observed across most of the portfolio including significant reductions in commercial property, CTP and workers' compensation.

Asia Pacific Operations' attritional claims ratio improved by 5.0% reflecting strong portfolio management actions including the exiting of poor performing segments in Hong Kong workers' compensation, Indonesian marine hull and our operations in Thailand, coupled with premium rate increases.

Equator Re's attritional claims ratio improved very significantly due to a reduction in proportional business that ordinarily operates at a higher attritional claims ratio relative to excess of loss business.

Analysis of attritional claims ratio

FOR THE YEAR ENDED 31 DECEMBER	2018		2017	
	NEP US$M	ATTRITIONAL %	NEP US$M	ATTRITIONAL %
Rest of portfolio	**10,662**	**50.2**	10,604	53.1
Crop insurance	**980**	**78.8**	951	77.5
LMI	**188**	**30.9**	213	24.9
QBE Group adjusted	**11,830**	**52.3**	11,768	54.5

Large individual risk and catastrophe claims net of reinsurance are summarised in the table below.

Large individual risk and catastrophe claims

FOR THE YEAR ENDED 31 DECEMBER	2018		2017	
	US$M	% OF NEP	US$M	% OF NEP
Total catastrophe claims	**523**	**4.4**	1,208	10.3
Total large individual risk claims	**640**	**5.4**	596	5.1
Total large individual risk and catastrophe claims	**1,163**	**9.8**	1,804	15.4

The total net cost of catastrophe claims fell to $523 million or 4.4% of net earned premium compared with $1,208 million or 10.3% in the prior period. Although not as extreme as 2017 which is widely regarded as having been the costliest year on record, catastrophe incidence remained elevated and significantly above historical averages, particularly in North America. After a benign first half, North America was impacted by Hurricanes Florence and Michael as well as devastating Californian bushfires while Asia was impacted by multiple typhoons and Australia by significant east coast storm activity in December including the Sydney hailstorm.

The net cost of large individual risk claims increased to $640 million or 5.4% of net earned premium from $596 million or 5.1% in the prior year. This was due to a lesser proportion of aggregate reinsurance recoveries being allocated to individual risk claims in 2018. Reduced large individual risk claim activity in Australian & New Zealand Operations and Equator Re was offset by increased activity in North American, European and Asia Pacific Operations. After a particularly poor first half, claims frequency improved significantly in Asia Pacific during the second half as de-risking and portfolio exit initiatives took effect.

Weighted average risk-free rates

As summarised in the table below, the currency weighted average risk-free rate used to discount net outstanding claims liabilities increased to 1.66% as at 31 December 2018 from 1.50% as at 31 December 2017. The US dollar risk-free rate increased strongly, particularly in the first half of 2018, while Australian dollar and euro risk-free rates fell appreciably.

Weighted average risk-free rates

CURRENCY		31 DECEMBER 2018[1]	30 JUNE 2018[1]	31 DECEMBER 2017[1]	30 JUNE 2017[1]
Australian dollar	%	**2.06**	**2.29**	2.31	2.17
US dollar	%	**2.74**	**2.80**	2.36	2.16
Sterling	%	**1.08**	**1.10**	0.92	0.89
Euro	%	**0.23**	**0.30**	0.42	0.45
Group weighted	%	**1.66**	**1.77**	1.50	1.40
Estimated impact of discount rate benefit (charge)	$M	**13**	**40**	68	30

1 Continuing operations basis.

The increase in risk-free rates gave rise to an underwriting benefit of $13 million that reduced the net claims ratio by 0.1% compared with $68 million in the prior period that reduced the net claims ratio by 0.6%. Given the longer duration of our euro denominated net claims liabilities, the fall in euro risk-free rates during the period disproportionately reduced the overall impact of higher weighted average risk-free rates on the Group's underwriting result.

Prior accident year claims development

The result included $113 million of positive prior accident year claims development that benefited the claims ratio by 1.0% compared with $52 million or 0.4% of favourable development in the prior period.

Excluding $64 million of positive prior accident year claims development pertaining to North American Crop insurance that is matched by additional premium cessions under the MPCI scheme (resulting in a nil profit impact) but including a $43 million benefit in European Operations due to a lengthening of the expected future claims payment patterns, prior accident year claims development is better stated at $92 million or 0.8% of net earned premium compared with $17 million or 0.1% in the prior period.

The Group's overall net positive prior accident year claims development of $92 million compares with $17 million in the prior year and included the following:

- North American Operations recorded $11 million of positive development compared with $149 million of adverse development in the prior period, reflecting favourable development in Crop (that was not matched by additional premium cessions under the MPCI scheme) partly offset by adverse development in assumed multi-line, commercial corporate, D&O and Specialty programs;
- European Operations recorded $86 million of positive development compared with $141 million in the prior year, reflecting the aforementioned payment pattern benefit and a net reserve release of $43 million primarily driven by QBE Re European property business;
- Australian & New Zealand Operations reported $112 million of positive development compared with $158 million in the prior year, largely reflecting the continuing absence of any notable claims inflation across most long-tail classes;
- Asia Pacific Operations reported $10 million of adverse development primarily due to late notification of short-tail claims in the first half of 2018, a pleasing improvement from $35 million in the prior year;
- Equator Re reported $84 million of adverse development, down from $97 million in the prior year, largely relating to the September 2017 Mexican earthquakes coupled with reduced recoveries projected on older year aggregate reinsurance treaties; and
- adverse development of $23 million in Corporate reflects internal reinsurance between Latin American Operations and Equator Re, with the equivalent $23 million reinsurance recovery recorded in discontinued operations (resulting in a net nil impact to the Group).

The result also included a risk margin increase of $17 million ($12 million on a statutory basis) or 0.1% of net earned premium compared with an increase of $93 million ($75 million on a statutory basis) or 0.8% in the prior year.

Commission and expenses

The Group's combined commission and expense ratio improved to 31.6% from 31.8% in the prior year.

The commission ratio improved slightly to 16.4% from 16.5% in 2017. European Operations' commission ratio fell due to the non-recurrence of commission adjustments and one-off reinsurance spend in the prior year. This was partly offset by higher commission expense in Australian & New Zealand Operations primarily due to the non-renewal of the CTP quota share reinsurance treaty with Equator Re.

The Group's expense ratio improved marginally to 15.2% from 15.3% in the prior year. Cost savings from efficiency initiatives were achieved in all divisions, partly offset by the loss of managed fund fee income in Australian & New Zealand Operations, costs associated with the implementation of the Brexit solution and the Brilliant Basics program as well as various other strategic initiatives across the Group.

Income tax expense

The Group's income tax expense of $77 million equated to an effective tax rate of 12% compared with tax expense of $224 million in 2017. The low effective tax rate reflects increased profits in North America and Bermuda, which benefit from the utilisation of previously unrecognised tax losses, profits in the UK (where the corporate tax rate is lower than Australia) and the recognition of additional North American deferred tax assets.

In 2018, QBE paid $200 million in corporate income tax to tax authorities globally, including $88 million in Australia. Income tax payments in Australia benefit our dividend franking account, the balance of which stood at A$224 million as at 31 December 2018. The Group is therefore capable of fully franking A$523 million of dividends. The dividend franking percentage will increase to 60% for dividend payments in calendar 2019 (including the 2018 final dividend), however, the franking rate is expected to fall to around 10% in 2020 and thereafter reflecting the anticipated increase in the profit contribution of non-Australian operations.

Balance sheet

Capital management summary

During 2018, the Group's focus was on a return to the strong capital adequacy levels seen prior to the extreme catastrophe experience of 2017. As at 31 December 2018, the Group's indicative APRA PCA multiple was 1.78x, up from 1.64x at 31 December 2017 and towards the upper end of our 1.6x–1.8x PCA target range, while our excess above S&P 'AA' minimum capital levels increased.

During the second half of 2018 and following detailed semi-annual reviews, the major rating agencies published updated credit rating opinions which resulted in the rating and outlook for QBE remaining unchanged. These outcomes are highlighted below:

- On 5 September 2018, Fitch Ratings' credit opinion highlighted the long-term issuer default rating (IDR) as 'A-' and the insurer financial strength (IFS) ratings of QBE's core subsidiaries at 'A+' (Strong). The ratings outlook is "stable".
- On 19 September 2018, S&P's credit opinion highlighted the parent entity's issuer credit rating (ICR) at 'A-' as well as the ICR and IFS ratings on QBE's core operating entities at 'A+'. The outlook remained "stable".

On 21 December 2018, Moody's reiterated QBE insurance Group Limited's (the parent entity) ICR of 'A3', while the outlook remained "negative". The IFS ratings of the core subsidiaries remain at 'A1', also with a "negative" outlook. While A.M. Best did not publish a revised credit opinion during the second half of 2018, A.M. Best's long-term ICR of the parent entity and its main operating subsidiaries remains at 'bbb+' and 'a+' respectively, while the IFS of the main operating subsidiaries remain at 'A'. The Group's outlook remains "stable".

Capital summary

AS AT 31 DECEMBER	2018 US$M	2017 US$M
Net assets	**8,400**	8,901
Less: intangible assets	**(2,800)**	(3,079)
Net tangible assets	**5,600**	5,822
Add: borrowings	**3,188**	3,616
Total tangible capitalisation	**8,788**	9,438

AS AT 31 DECEMBER	2018[1] US$M	2017[2] US$M
QBE's regulatory capital base	**8,761**	8,974
APRA's Prescribed Capital Amount (PCA)	**4,930**	5,488
PCA multiple	**1.78x**	1.64x

1 Indicative APRA PCA calculation at 31 December 2018.

2 Prior year APRA PCA calculation has been restated to be consistent with APRA returns finalised subsequent to year end.

Key financial strength ratios

AS AT 31 DECEMBER	BENCHMARK	2018	2017
Debt to equity	25% to 35%	**38.0%**	40.8%
Debt to tangible equity		**57.1%**	62.6%
PCA multiple[1]	1.6x to 1.8x	**1.78x**	1.64x
Premium solvency[2]		**47.3%**	49.5%
Probability of adequacy of outstanding claims	87.5% to 92.5%	**90.1%**	90.0%

1 Prior year APRA PCA calculation has been restated to be consistent with APRA returns finalised subsequent to year end.

2 Premium solvency ratio is calculated as the ratio of net tangible assets to adjusted net earned premium.

Borrowings

At 31 December 2018, total borrowings stood at $3,188 million, down $428 million or 12% from $3,616 million at 31 December 2017. During the year, the Group completed two liability management exercises:

- The buyback in March 2018 of $291 million of senior unsecured debt securities due 25 May 2023.
- The buyback in June 2018 of $100 million of senior unsecured debt securities due 10 October 2022.

The Group also bought back an additional $8 million of senior unsecured debt securities from individual holders during the year.

At 31 December 2018, QBE's ratio of borrowings to shareholders' funds was 38.0%, down from 40.8% at 31 December 2017. This reflects the debt buybacks undertaken during the year partly offset by a strengthening of the US dollar against major currencies which adversely impacted our reported shareholders' funds. Debt to tangible equity was 57.1%, down from 62.6% at 31 December 2017.

Gross interest expense on long-term borrowings was down $7 million from the prior year to $205 million. The average annual cash cost of borrowings outstanding at the balance date increased from 5.9% at 31 December 2017 to 6.4% at 31 December 2018, reflecting the repurchase of $399 million of senior debt that has a lower coupon relative to the Group's capital qualifying debt.

At 31 December 2018, 94% of the Group's debt counted towards regulatory capital, up from 83% at 31 December 2017, reflecting the repurchase and cancellation of senior debt during the year.

Borrowings maturity[1]

AS AT 31 DECEMBER	2018 %	2017 %
Less than one year	**–**	–
One to five years	**42**	29
More than five years	**58**	71

1 Based on first call date.

Borrowings profile

AS AT 31 DECEMBER	2018 %	2017 %
Senior debt	**6**	17
Subordinated debt	**81**	72
Additional tier 1 securities	**13**	11

Further details of borrowings are set out in note 5.1 to the financial statements.

Net outstanding claims liabilities

AS AT 31 DECEMBER	2018 US$M	2017 US$M	2016 US$M	2015 US$M	2014 US$M
Net central estimate	**12,870**	14,029	12,693	14,119	15,595
Risk margin	**1,158**	1,239	1,088	1,260	1,353
Net outstanding claims	**14,028**	15,268	13,781	15,379	16,948
	%	%	%	%	%
Probability of adequacy of outstanding claims (PoA)	**90.1**	90.0	89.5	89.0	88.7
Weighted average discount rate	**1.7**	1.7	1.5	1.9	1.7
Weighted average term to settlement (years)	**3.3**	3.1	2.9	3.0	2.8

As required by Australian Accounting Standards, net outstanding claims liabilities are discounted by applying sovereign bond rates as a proxy for risk-free interest rates and not the actual earning rate on our investments.

At 31 December 2018, risk margins in net outstanding claims were $1,158 million or 9.0% of the net central estimate of outstanding claims compared with $1,239 million or 8.8% of the net central estimate at 31 December 2017. Excluding foreign exchange movements and risk margins sold or held for sale, risk margins increased $12 million during the year compared with a $75 million increase in the prior year.

The PoA was broadly stable at 90.1%. A slight increase in risk margins as a percentage of the net central estimate was largely offset by an increase in the coefficient of variation, primarily due to the loss of diversification benefit associated with the Latin American claims reserves sold or held for sale.

Intangible assets

The carrying value of identifiable intangibles and goodwill at 31 December 2018 was $2,800 million, down from $3,079 million at 31 December 2017.

During the year, the carrying value of intangibles reduced by $279 million, primarily due to a $183 million foreign exchange impact coupled with $51 million of intangibles either sold or designated as held for sale at 31 December 2018 following the announced and/or completed sales of QBE's operations in Latin America, Puerto Rico, Thailand, Indonesia, the Philippines and the personal lines operations in North America. Amortisation and impairment expense of $113 million more than offset net additions in the period which comprised the capitalisation of expenditure in relation to various information technology projects.

At 31 December 2018, QBE reviewed all material intangibles for indicators of impairment, consistent with the Group's policy and the requirements of the relevant accounting standard. A detailed impairment test was completed in relation to our North American goodwill balance of $832 million, which indicated headroom at the balance date of $250 million compared with nil at 31 December 2017. The valuation remains highly sensitive to a range of assumptions, particularly changes in the forecast combined operating ratio used in the terminal value calculation, discount rate and long-term investment assumptions.

Details of the sensitivities associated with this valuation are included in note 7.2.1 to the financial statements.

Investment performance and strategy

The investment portfolio delivered a net investment yield of 2.2% compared with 3.1% in the prior year.

Growth asset returns were more modest, delivering an aggregate return of 6.2% in 2018 compared with 13.3% in the prior year. Continued strong returns from our unlisted property and infrastructure assets partly offset weaker equity market returns.

Fixed income returns were adversely impacted by higher US Treasury yields and wider global credit spreads, both of which generated mark-to-market capital losses and partly offset the underlying running yield generated by the portfolio. Fixed income assets returned 1.8% compared with 2.0% in the prior year.

Active duration management throughout the year enhanced fixed income returns. While yields rose during the first half of 2018, we held duration around 1.5 years thereby minimising mark-to-market capital losses. During the second half we extended duration to 2.1 years enabling us to capture more of the December global bond market rally. Similarly, in December we took advantage of equity market weakness and increased our exposure to growth assets which finished the year at 13.7% of total cash and investments.

Throughout the credit spread widening experienced in 2018 our high quality and short duration credit portfolio has been relatively resilient, allowing us to extend risk modestly at what are now much more attractive valuations.

As at 31 December 2018 the running yield of the fixed income portfolio was 2.2%, up from 1.7% a year earlier.

Total cash and investments at 31 December 2018 was $22.9 billion, down 12% from $26.1 billion at 31 December 2017. The reduction in cash and investments during the year primarily reflects a $1.3 billion impact from the stronger US dollar, a $0.7 billion impact from the settlement of the 2017 North American loss portfolio transfer and the Hong Kong construction workers' compensation reinsurance transaction, $0.6 billion of debt and equity buybacks and $0.6 billion of Latin American investments sold.

We see 2019 as likely to be a year of reasonable global growth and corporate earnings, although both have likely peaked, as have the economic and market tail winds from significant monetary and fiscal policy stimulation.

During 2019 we intend to manage our exposure to equities and other liquid risk assets within a 10%–15% range of total cash and investments and modestly increase the duration of our fixed income portfolio which is expected to be managed in a 2.0–2.5 year range.

Total net investment income [1]

FOR THE YEAR ENDED 31 DECEMBER	POLICYHOLDERS' FUNDS 2018 US$M	POLICYHOLDERS' FUNDS 2017 US$M	SHAREHOLDERS' FUNDS 2018 US$M	SHAREHOLDERS' FUNDS 2017 US$M	TOTAL 2018 US$M	TOTAL 2017 US$M
Income on growth assets	**111**	192	**60**	141	**171**	333
Fixed interest, short-term money and cash income	**245**	287	**142**	174	**387**	461
Gross investment income	**356**	479	**202**	315	**558**	794
Investment expenses	**(11)**	(11)	**(6)**	(7)	**(17)**	(18)
Net investment income	**345**	468	**196**	308	**541**	776
Foreign exchange gain (loss)	**1**	(19)	**–**	–	**1**	(19)
Other income (expenses)	**–**	(2)	**5**	3	**5**	1
Net investment and other income	**346**	447	**201**	311	**547**	758

1 Includes total realised and unrealised losses on investments of $143 million (2017 $184 million gains) comprising losses on investments supporting policyholders' funds of $87 million (2017 $100 million gains) and shareholders' funds of $56 million (2017 $84 million gains).

Annualised gross and net investment yield

FOR THE YEAR ENDED 31 DECEMBER	YIELD ON INVESTMENT ASSETS BACKING POLICYHOLDERS' FUNDS 2018 %	YIELD ON INVESTMENT ASSETS BACKING POLICYHOLDERS' FUNDS 2017 %	YIELD ON INVESTMENT ASSETS BACKING SHAREHOLDERS' FUNDS 2018 %	YIELD ON INVESTMENT ASSETS BACKING SHAREHOLDERS' FUNDS 2017 %	TOTAL 2018 %	TOTAL 2017 %
Gross investment yield [1]	**2.3**	3.0	**2.3**	3.4	**2.3**	3.2
Net investment yield [2]	**2.3**	2.9	**2.2**	3.3	**2.2**	3.1
Net investment income and other income yield [3]	**2.3**	2.8	**2.2**	3.4	**2.3**	3.0

1 Gross investment yield is calculated with reference to gross investment income as a percentage of average investment assets backing policyholders' or shareholders' funds as appropriate.
2 Net yield is calculated with reference to gross investment income less investment management expenses as a percentage of average investment assets backing policyholders' or shareholders' funds as appropriate.
3 Net investment income and other income yield is calculated with reference to net investment and other income as a percentage of average investment assets backing policyholders' or shareholders' funds as appropriate.

Total cash and investments

AS AT 31 DECEMBER	INVESTMENT ASSETS BACKING POLICYHOLDERS' FUNDS 2018 US$M	INVESTMENT ASSETS BACKING POLICYHOLDERS' FUNDS 2017 US$M	INVESTMENT ASSETS BACKING SHAREHOLDERS' FUNDS 2018 US$M	INVESTMENT ASSETS BACKING SHAREHOLDERS' FUNDS 2017 US$M	TOTAL 2018 US$M	TOTAL 2017 US$M
Cash and cash equivalents	**536**	368	**327**	204	**863**	572
Short-term money	**796**	2,228	**487**	1,234	**1,283**	3,462
Government bonds	**3,089**	3,589	**1,886**	1,987	**4,975**	5,576
Corporate bonds	**7,540**	8,523	**4,604**	4,720	**12,144**	13,243
Infrastructure debt	**308**	361	**187**	201	**495**	562
Unit trusts	**–**	18	**–**	11	**–**	29
Strategic equities	**–**	–	**43**	85	**43**	85
Other equities	**324**	280	**198**	155	**522**	435
Emerging market equity	**180**	71	**109**	39	**289**	110
Emerging market debt	**145**	–	**89**	–	**234**	–
High yield debt	**50**	–	**31**	–	**81**	–
Infrastructure assets	**528**	575	**323**	319	**851**	894
Private equity	**99**	49	**60**	27	**159**	76
Property trusts	**567**	696	**346**	386	**913**	1,082
Investment properties	**22**	10	**13**	5	**35**	15
Total investments and cash	**14,184**	16,768	**8,703**	9,373	**22,887**	26,141

Interest bearing financial assets – S&P security grading

AS AT 31 DECEMBER	2018 %	2017 %
S&P rating		
AAA	**14**	15
AA	**40**	34
A	**34**	39
<A	**12**	12

Currency mix of investments

AS AT 31 DECEMBER	GROWTH ASSETS 2018 %	GROWTH ASSETS 2017 %	TOTAL CASH AND INVESTMENTS 2018 %	TOTAL CASH AND INVESTMENTS 2017 %
US dollar	**47**	53	**32**	29
Australian dollar	**27**	32	**29**	31
Sterling	**14**	5	**18**	18
Euro	**12**	10	**11**	10
Other	**–**	–	**10**	12

Final dividend

Our dividend policy is designed to ensure that we reward shareholders relative to cash profit and maintain sufficient capital for future investment and growth of the business.

The final dividend for 2018 is 28 Australian cents per share, an increase of 24 Australian cents per share from the 2017 final dividend, reflecting a return to profitability and a stronger capital position.

The dividend will be 60% franked and is payable on 18 April 2019. The dividend reinvestment programs remain at a nil discount with any demand for shares under the dividend reinvestment plan to be satisfied by the acquisition of shares on-market.

The 2018 final dividend payout is A$372 million or 70% of cash profit calculated by converting cash profit to Australian dollars at the average exchange rate during the period. Inclusive of A$333 million of QBE shares repurchased, the payout for the 2018 year is A$1,002 million, more than double the A$495 million payout in the prior year.

Closing remarks

There are some clear operational and financial priorities for the Group in 2019, a number of which represent a continuation of priorities established in 2018:

- deliver a 2019 full year combined operating ratio within the target range of 94.5%–96.5% [1];
- deliver a 2019 full year net investment return within the target range of 3.0%–3.5% [1];
- continue to execute on profit improvement plans in North America including completion of the personal lines exit;
- further improve on the strong underwriting results achieved in European and Australian & New Zealand Operations;
- ensure the seamless integration (from a governance and reporting perspective) of Asia and Pacific Islands into our European and Australian & New Zealand Operations respectively;
- maintain the focus on the cell review process while building on the early benefits from the successful rollout of the Brilliant Basics program;
- ensure delivery of year one cost savings in accordance with the three-year efficiency program; and
- continue to maximise divisional cash remittances to the Group head office.

I look forward to reporting on our progress with the release of our 2019 half year result on 15 August.

Inder Singh
Group Chief Financial Officer

1 Assumes risk-free rates at 31 December 2018.