

Financial Review 2017

Resilience
in action

Contents

Financial highlights	2
Share information	3
Message from the Chairman	4
Statement from the Group CEO	8
Business Units at a glance	12
Summary of financial statements	14
Group results	16
Group underwriting	18
Group investments	20
Reinsurance	22
Property & Casualty Reinsurance	24
Life & Health Reinsurance	26
Corporate Solutions	28
Life Capital	30

Group financial statements	32
Income statement	32
Statement of comprehensive income	33
Balance sheet	34
Statement of shareholders' equity	36
Statement of cash flows	38

Notes to the Group financial statements	40	
Note 1	Organisation and summary of significant accounting policies	40
Note 2	Information on business segments	43
Note 3	Insurance information	53
Note 4	Premiums written	58
Note 5	Unpaid claims and claim adjustment expenses	59
Note 6	Deferred acquisition costs (DAC) and acquired present value of future profits (PVFP)	62
Note 7	Investments	64
Note 8	Fair value disclosures	72
Note 9	Derivative financial instruments	85
Note 10	Acquisitions	89
Note 11	Debt and contingent capital instruments	90
Note 12	Earnings per share	93
Note 13	Commitments and contingent liabilities	94
Note 14	Variable interest entities	95
Note 15	Subsequent events	100

General information	102
Cautionary note on forward-looking statements	102
Note on risk factors	104
Contacts	112
Corporate calendar	113

This 2017 Financial Review of the Swiss Re Group contains updates on our business and results and preliminary unaudited financial information for 2017. The updates on our business and results will be included in our 2017 Annual Report, together with our audited financial statements for 2017 and other disclosures we are required to include or historically have included in an annual report. This Financial Review is not intended to be a substitute for the full 2017 Annual Report, which will be published on the Swiss Re website on 15 March 2018.

Financial highlights

FINANCIAL HIGHLIGHTS

For the years ended 31 December

USD millions, unless otherwise stated	2016	2017	Change in %
Group			
Net income attributable to common shareholders	3 558	331	-91
Gross premiums written	35 622	34 775	-2
Premiums earned and fee income	33 231	33 705	1
Earnings per share in CHF	10.55	1.02	-90
Common shareholders' equity	34 532	33 374	-3
Return on equity in % ¹	10.6	1.0	
Return on investments in %	3.4	3.9	
Net operating margin in %	13.0	2.8	
Number of employees ²	14 053	14 485	3
Property & Casualty Reinsurance			
Net income/loss attributable to common shareholders	2 100	-413	-
Gross premiums written	18 149	16 544	-9
Premiums earned	17 008	16 667	-2
Combined ratio in %	93.5	111.5	
Net operating margin in %	15.4	-1.3	
Return on equity in % ¹	16.4	-3.5	
Life & Health Reinsurance			
Net income attributable to common shareholders	807	1 092	35
Gross premiums written	12 801	13 313	4
Premiums earned and fee income	11 527	11 980	4
Net operating margin in %	10.4	13.1	
Return on equity in % ¹	12.8	15.3	
Corporate Solutions			
Net income/loss attributable to common shareholders	135	-741	-
Gross premiums written	4 155	4 193	1
Premiums earned	3 503	3 651	4
Combined ratio in %	101.1	133.4	
Net operating margin in %	4.2	-23.5	
Return on equity in % ¹	6.0	-32.2	
Life Capital			
Net income attributable to common shareholders	638	161	-75
Gross premiums written	1 489	1 761	18
Premiums earned and fee income	1 193	1 407	18
Gross cash generation ³	721	998	38
Net operating margin in %	27.0	10.9	
Return on equity in % ¹	10.4	2.2	

¹ Return on equity is calculated by dividing net income/loss attributable to common shareholders by average common shareholders' equity.

² Regular staff.

³ Gross cash generation is the change in excess capital available over and above the target capital position, with the target capital being the minimum statutory capital plus the additional capital required by Life Capital's capital management policy.

FINANCIAL STRENGTH RATINGS

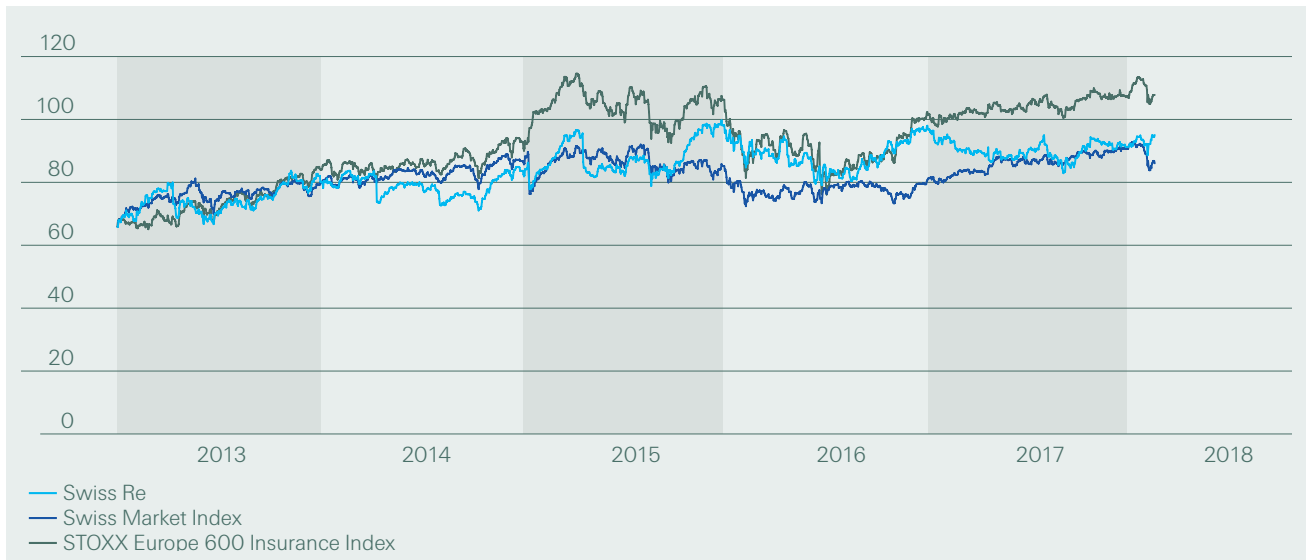
Standard & Poor's
AA-
 stable
 (as of 24.11.2017)

Moody's
Aa3
 stable
 (as of 19.12.2017)

A.M. Best
A+
 stable
 (as of 07.12.2017)

Share information

SHARE PRICE (CHF)



SHARE INFORMATION

As of 19 February 2018

Share price in CHF	95.06
Market capitalisation in CHF millions	33 219

SHARE PERFORMANCE

in %	1 January 2013 – 19 February 2018 (p.a.)	2017
Swiss Re	7.4	-5.4
Swiss Market Index	5.3	14.1
STOXX Europe 600 Insurance Index	10.1	6.9

Swiss Re's strategy helped navigate a turbulent 2017



Walter B. Kielholz
Chairman of the Board of Directors

Dear shareholders,

2017 was a turbulent year. It will go down in history as a year in which insurers – especially reinsurers – faced many claims from major natural catastrophes. Insurers saw their accounts hit by no fewer than three hurricanes in the North Atlantic, two earthquakes in Mexico, two large forest fires in California and storms in Australia. But after all, this is our business and the reason why we're here. That's why we provide a detailed overview of the 2017 natural catastrophes and their impact in our upcoming Annual Report. Incidentally, history shows that loss concentrations of this kind occur at a practically biblical rhythm of every five to seven years.

**Proposed regular dividend
per share for 2017**

(CHF)

5.00

(CHF 4.85 for 2016)

The high storm activity clearly illustrated the potential consequences of climate change. While the frequency of storms in 2017 was not actually extraordinary when viewed in a multi-year comparison, it did show us what could happen if major storms were really to occur more frequently on a lasting basis, year after year. No one can predict how the insurance industry would actually deal with such a trend. In any case, Swiss Re will help contribute to managing the implications of climate change – both through our insurance solutions and our investment strategy. Mind you, this is also something that major institutional investors increasingly and vigorously call for.

It will be interesting to see how the insurance markets will respond to a year like 2017. Prices for insurance cover normally begin to drop after a series of “good” years, or in other words, years without large claims. This has been the case for quite some time now. But prices are set to rise again in the wake of a year such as 2017 – and this has been the case since the start of 2018, although the increases in the overall market are somewhat more muted than we would have expected. I am intrigued to see how the market dynamics will continue to develop. What we already know is that 2017 didn’t particularly weaken insurance market capitalisation, which may indicate a more moderate correction in prices. This remains to be seen.

Geopolitical risks

A year ago, I commented on geopolitical risks, at that time in the wake of Brexit and the US elections. Do I feel reassured, one year later? No, I do not. However, the reasons for my concern about the geopolitical situation have shifted somewhat. I now take a slightly more optimistic view of the situation in Europe, with respect to both the political and economic conditions. While the situation in the UK remains very uncertain and the potential consequences of Brexit are still somewhat unclear, I am encouraged by developments in other European countries.

While the US is demonstrating economic strength that we haven’t seen for years, the country is still bitterly divided on key issues – which will presumably worsen. I believe that the US is in the midst of a more substantial transformation than is suggested by the media’s focus on President Trump and his Twitter activity. At the same time, the Middle East continues to be the scene of great political upheaval, and unfortunately, no rays of hope are discernible on the horizon at present.

Please be assured that the management and the Board of Directors of Swiss Re take these geopolitical developments very seriously and continue to monitor them closely – we remain vigilant.

Growth, inflation and interest rates

We are obviously pleased that the global economy has entered a growth phase, even more so as our business can only grow when other industries outside of the financial sector are growing too. The inflation so long-awaited by many could, however, be a headache for us if it gets out of control. Let’s remember that we are vulnerable to inflation, especially in the liability business. In the past, it was very difficult to adjust for strong and sudden inflation hikes. Of course, we haven’t reached that point yet. But the phase of highly expansionary monetary policy – whether traditional or non-traditional – is over, and there is little doubt that yield curves will change again – move upwards and get steeper.

In fact, we are happy to experience an almost normal economic situation of this kind; but the road leading there will be painful for the insurance industry, because it implies a long and sustained bond bear market. This is a nightmare for a re/insurance company like Swiss Re that holds nearly 77% of its financial assets in bonds – and the reason why we are striving all the more to keep a check on the negative medium-term effects. Ultimately, I am convinced that the near future will see the establishment of a new reality in the financial markets, in which we will also be able to operate very successfully again.

Knowledge and experience
sets us apart

154
years

Digitalisation, big data, robotics, artificial intelligence

Forward-looking concepts in the fields of digitalisation and artificial intelligence are currently at the top of the agenda – and everyone is talking about these topics. People are either euphoric or concerned about them, depending on their standpoints and interests: some discussions suggest that business models run the risk of becoming obsolete sooner or later. Meanwhile, individuals are worried about their jobs and the world with which they are familiar. They wonder if their knowledge and skills, which they have worked hard to nurture, might cease to be needed from one day to the next.

I am convinced that today's concept of eco-system insurance will undergo drastic changes. A year ago, I already commented that I consider the distribution and production (intermediation costs) associated with insurance to be far too high given the modern technologies available. This also applies to other financial services, where the current situation has similarly attracted an almost frantic focus. We know, of course, that these far-reaching changes will probably take more time – but we also know that their effects will be felt all the more profoundly and rapidly when they do take hold. I believe that modern technologies will completely disrupt the insurance industry's value chains and pose great challenges to the entire industry's structure.

We have to be strategically prepared for this. We believe that digital disruption will have a less immediate impact on reinsurance and major risk business than on direct insurance business. And we believe that having an agile personnel and organisational infrastructure will be advantageous for purposes of flexibly adapting traditional business models. Nevertheless, we are not naïve: we certainly cannot allow ourselves to become complacent in such a radical phase of change – on the contrary, we want to play an active role in shaping it. Waiting anxiously and doing nothing is never a useful strategy. Swiss Re is therefore examining various strategic options that will enable us to respond rapidly to the digital transformation and fully capitalise on its future potential.

Meanwhile, this all comes down to the main aspect of our strategy: the allocation of capital and resources to emerging business models as well as the leveraging of newly established intermediaries to gain access to risk pools and end customers to which our traditional primary insurance partners have little access. Of course, we also aim to find new ways of assessing and evaluating risks – thanks to new analytical methodologies in a highly interconnected world of infinite data volumes.

Who knows where this journey will lead... but we are definitely living in exciting times. I personally remain optimistic and confident that Swiss Re will continue its success story – thanks to our resources, financial latitude, global network and our employees' wealth of knowledge and expertise.

“I personally remain optimistic and confident that Swiss Re will continue its success story – thanks to our resources, financial latitude, global network and our employees’ wealth of knowledge and expertise.”

In conclusion, let me draw your attention to a few important personnel changes:

In light of the ongoing renewal of the Board of Directors – a process that we launched some years ago – I am very pleased that we have attracted three outstanding individuals to stand for election to the Board. At the next Annual General Meeting on 20 April 2018, we will propose Karen Gavan, Eileen Rominger and Larry Zimpleman as new, non-executive and independent members.

Karen Gavan has over 35 years’ experience in various senior-level finance and management positions in insurance companies, both in life insurance and property and casualty business. Eileen Rominger is a recognised investment professional with extensive investment management experience. Larry Zimpleman boasts a successful 44-year career with the Principal Financial Group, an investment management firm that provides insurance solutions and asset management and pension products to private individuals and institutional clients. In the course of their diverse careers, all three have accumulated extensive international experience and sound insurance expertise, as well as wide-ranging skills in the field of new digital insurance solutions and offerings.

After 17 years as a member of the Board of Directors, Rajna Gibson Brandon has decided to step down. Mary Francis and C. Robert Henrikson, current members of the Board of Directors, also plan to retire at the next Annual General Meeting. I would like to thank Rajna Gibson Brandon, Mary Francis and C. Robert Henrikson for their great dedication and valuable contribution – not to mention the strategic advice and knowledge they have placed at our disposal over the years.

As already communicated, there is also a change to our Group Executive Committee: John Dacey will become the new Group Chief Financial Officer, succeeding David Cole, with effect from 1 April 2018. John Dacey joined Swiss Re’s Group Executive Committee as Group Chief Strategy Officer more than five years ago, and has successfully led several strategic initiatives. His career in the re/insurance industry spans over 20 years, during which time he has held a range of management positions. After more than seven years at Swiss Re, David will step down as Group CFO on 31 March 2018 to pursue a non-executive career. He will, however, remain a member of the board of directors of several Swiss Re subsidiaries. We would like to thank David Cole for his management expertise and outstanding contribution to Swiss Re.

In addition, I would like to thank our approximately 14 500 employees around the world – also on behalf of the Board of Directors and the Group Executive Committee – for their impressive commitment in 2017. It was largely thanks to their efforts that we were able to successfully navigate a very demanding year. And, finally, I would also like to thank you, our shareholders, for your trust and ongoing support and I wish you a successful 2018.

Zurich, 23 February 2018



Walter B. Kielholz
Chairman of the Board of Directors

Swiss Re maintains its commitment to creating long-term value



Christian Mumenthaler
Group Chief Executive Officer

Dear shareholders,

2017 was a demanding year for our industry – and for Swiss Re. I'm sure you remember the news headlines about Cyclone Debbie in Australia, the hurricanes in the US and Caribbean, the earthquakes in Mexico or the wildfires in California. Above all else, disasters like these are human tragedies. I was troubled and deeply moved by the devastation to families and whole communities.

In such difficult times, we are here to help people and businesses get back on their feet. That has always been our purpose. And it's what makes working here so rewarding for me personally. I'll remember 2017 as another year of truth for Swiss Re: it was and remains our priority to support our clients and the people affected by severe natural catastrophes.

Despite the estimated large insurance claims of 2017, we reported a full year net income of USD 331 million. Our decisions in recent years to keep excess capital on our balance sheet and to be disciplined in our underwriting mean that – even after the losses – our capital position is very strong and our financial flexibility remains high. Our commitment to creating long-term value for you, our shareholders, as well as for our clients remains unchanged.

Unfortunately, last year's natural disasters also highlighted the fact that a lot of people do not have insurance. That can be due to a variety of reasons, such as lack of access or awareness. In fact, the number of people around the world who are not protected has been increasing. This is due to population growth and more people living in areas that are prone to natural disasters – Florida is one example.

We've been determined to tackle this gap in insurance coverage – we call it the protection gap – for many years. In 2015, the global protection gap amounted to around USD 153 billion for natural catastrophe risk. In my opinion, this number is far too big. It represents too many people that will not have the financial support necessary to rebuild their lives when natural catastrophes strike in the future. It also represents a threat to entire economies.

Our industry plays a major role in ensuring financial stability and, therefore, we need to keep working hard to close this protection gap. This will require more than traditional reinsurance solutions. It's my ambition over the coming years to strongly position Swiss Re as a risk knowledge company. What do I mean by this? I mean that Swiss Re applies its 154 years of risk knowledge and partners with our clients so that, together, we can develop innovative insurance solutions that reach more people. In doing so, we are making the world more resilient.

Innovative solutions to make the world more resilient

We made progress towards that goal in 2017. We co-led the World Bank's Pandemic Emergency Financing Facility (PEF). In case of a disease outbreak, cash will be automatically paid to response agencies and national governments to finance emergency interventions. Payouts will be made when a set of pre-determined thresholds are met, such as number of deaths or infections within a given timeframe. PEF was developed in response to the Ebola crisis of 2014 where, as you may remember, response funds only became available months into the outbreak. PEF will allow funds to reach affected countries in as little as ten days. In that sense, we expect it to save lives and prevent an outbreak from becoming a larger international crisis.

Solutions like this are only possible with the latest technology. And, in general, technology is having a big, mostly positive impact right across the insurance value chain. For example, Magnum – our underwriting software for life and health insurance products – enables our primary insurance clients to automate the risk assessment process, providing instant underwriting decisions. In 2017, Magnum processed more than 10 million applications globally. Furthermore, it provides our clients with meaningful data insights, so that they can better understand their customers and develop products that are even more tailored to their needs. At the same time, we gain insights into the drivers of profitability in the biometric risk business. In this way, we work together with our clients to extend insurance coverage.

Full year net income
in USD millions, 2017

331

(2016: USD 3.6 billion)

Technology is also changing insurance distribution channels. Just as we can buy books or groceries online, you can easily buy life insurance online, too. Our digital life insurance platform, provided through our iptiQ business, makes it possible to reach the people who don't buy insurance through traditional insurance distribution channels, such as agents – and for the price of a coffee per day. With the platform, our clients can take advantage of our technology and knowledge, but distribute products under their own brand. There's great potential to provide security and peace of mind to millions of people.

At the same time, with digital solutions we're improving our international business capabilities to better support our commercial insurance clients around the world. We work with our clients – from retail operators to real estate companies and from schools to hotels – to provide a better understanding of the current and future risks they face and develop innovative solutions that meet their specific needs and risk exposure. Insured businesses are more resilient businesses because in the event of a disaster, we help them get back to work and serving their own customers quicker.

Let me share a tangible example: when hurricanes Harvey, Irma and Maria hit last year, we received more than 200 loss notices from our commercial insurance clients in the days immediately after the hurricanes made landfall. To handle the claims quickly, we reallocated staff across regions and lines of business and we were able to get back to clients within one business day. In one case, we provided a fast, substantial payment to a school that was significantly damaged in one of the most affected areas. With this money, we helped the school start reconstruction quickly, and it's on track to re-open in time to host the graduation ceremonies for its senior class.

Our financial performance in 2017

After several years with below average natural catastrophe activity and corresponding very strong returns for shareholders in our property and casualty (P&C) businesses, the events of 2017 – totalling USD 4.7 billion in expected claims – took a toll on our results: P&C Reinsurance reported a loss of USD 413 million and Corporate Solutions reported a loss of USD 741 million. As the US is the largest market for our commercial business, Corporate Solutions' result was particularly impacted by the natural catastrophes there. We remain fully committed to the Business Unit and, as we previously communicated, we have strengthened its capital position with a USD 1.0 billion capital injection.

Following such large re/insurance losses that affect the whole industry, the prices for re/insurance products tend to rise. In the January 2018 renewals, we saw a 2% increase in prices which was most pronounced in the property lines affected by natural catastrophe losses. This is positive for us, our industry and, in my view, is necessary. With the majority of loss affected property business in the US still to be renewed in July, we will keep steering pricing towards levels that are more appropriate for the risks we take on – also to ensure the long-term sustainability of the insurance value chain.

In contrast to our P&C businesses, our life and health businesses thrived in 2017. For the third year in a row, our Life & Health Reinsurance performance was strong and we increased our net income to USD 1.1 billion – a result we achieved through a strong investment performance and solid underwriting results. In Life Capital, our Business Unit which manages closed and open life and health insurance books, we generated gross cash of USD 998 million in 2017. We also achieved two important

“Our strategy and near-term priorities set us up well to continue partnering with our clients and applying our knowledge to develop solutions that directly tackle the protection gap.”

milestones in ReAssure, a UK subsidiary of Life Capital, through which we buy books of policies that are no longer sold by a life insurer but need to be actively managed until they close. I'm delighted that MS&AD, a Japanese insurance group that we've had a relationship with for 103 years, made a minority investment in ReAssure. This significantly boosts our capacity to finance closed books of business. And, you may have read that in late 2017 we purchased 1.1 million life insurance policies from Legal & General Group PLC, a UK financial service provider. We now protect 3.4 million people through ReAssure. At the same time, we generated significant growth in Life Capital's individual and group life insurance businesses in 2017.

I'm also pleased that our investment performance for 2017 was very strong with an ROI of 3.9% and that we continued to pave the way in responsible investing. We are especially proud to be among the first in the industry to switch to benchmarks that systematically integrate environmental, social and governance (ESG) criteria. This helps generate sustainable long-term investment returns and reduces downside risks.

I am convinced that the outlook for our industry is now more positive than it has been in the last four years. I expect that changes in the market environment, such as adjusting price levels and increased interest rates, will be good for our business.

Our strategy and near-term priorities set us up well to continue partnering with our clients and applying our knowledge to develop solutions that directly tackle the protection gap. Even after 19 years with Swiss Re, I'm still impressed by my colleagues' dedication to doing this every day – for that, I sincerely thank them. I also thank you, our shareholders, for your trust in us, the employees of your company, Swiss Re.

Zurich, 23 February 2018



Christian Mumenthaler
Group Chief Executive Officer

Business Units at a glance

Working across diversified insurance risks and businesses to maximise shareholder value.

BUSINESS UNIT	NET PREMIUMS EARNED AND FEE INCOME (USD BILLIONS)	NET INCOME/LOSS (USD MILLIONS)
<h2>Reinsurance</h2> <p>Reinsurance provides clients and brokers with reinsurance products, insurance-based capital market instruments and risk management services. Reinsurance operates globally through two segments – Property & Casualty and Life & Health.</p>	<h3>Property & Casualty</h3> <p>2017: 16.7 2016: 17.0</p>	<p>2017: -413 2016: 2 100</p>
<h2>Corporate Solutions</h2> <p>Corporate Solutions provides risk transfer solutions to large and mid-sized corporations around the world. Its innovative, highly customised products and standard insurance covers help to make businesses more resilient, while its industry-leading claims service provides additional peace of mind.</p>	<h3>Life & Health</h3> <p>2017: 12.0 2016: 11.5</p>	<p>2017: 1 092 2016: 807</p>
<h2>Life Capital</h2> <p>Life Capital manages closed and open life and health insurance books. It provides alternative access to the life and health risk pool, helping to generate stable returns and seize attractive new opportunities.</p>	<p>2017: 3.7 2016: 3.5</p>	<p>2017: -741 2016: 135</p>
<h2>Total</h2> <p>(After consolidation)</p>	<p>2017: 1.4 2016: 1.2</p>	<p>2017: 161 2016: 638</p>
<h2>Total</h2> <p>(After consolidation)</p>	<p>2017: 33.7 2016: 33.2</p>	<p>2017: 331 2016: 3 558</p>

OPERATING PERFORMANCE

111.5%

(93.5% 2016)
Combined ratio

13.1%

(10.4% 2016)
Net operating margin

133.4%

(101.1% 2016)
Combined ratio

998m

(USD 721m 2016)
Gross cash generation

1.0%

(10.6% 2016)
Return on equity

RETURN ON EQUITY

-3.5%

(Over-The-Cycle Target: 10%-15%)

15.3%

(Over-The-Cycle Target: 10%-12%)

-32.2%

(Over-The-Cycle Target: 10%-15%)

2.2%

(Mid Term Target: 6%-8%)

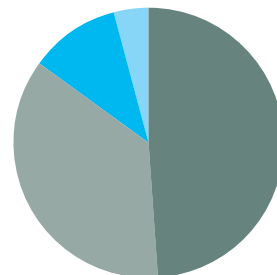
+700 bps

Over-the-cycle ROE target of at least 700 bps greater than Swiss Re's designated risk-free rate, currently 10-yr US government bonds.

DIVERSIFIED AND GLOBAL

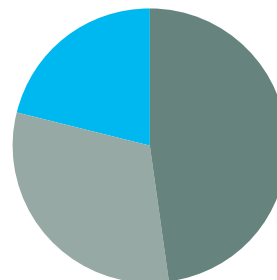
Net premiums earned and fee income by business segments
(Total USD 33.7 billion)

- 49% P&C Reinsurance
- 36% L&H Reinsurance
- 11% Corporate Solutions
- 4% Life Capital



Net premiums earned and fee income by region
(Total USD 33.7 billion)

- 48% Americas
- 31% EMEA
- 21% Asia-Pacific



Summary of financial statements

INCOME STATEMENT ▼			
USD millions	2016	2017	Change in %
Revenues			
Gross premiums written	35 622	34 775	-2
Net premiums written	33 570	32 316	-4
Change in unearned premiums	-879	803	-
Premiums earned	32 691	33 119	1
Fee income from policyholders	540	586	9
Net investment income – non-participating business	3 661	3 708	1
Net realised investment gains/losses – non-participating business	1 484	1 727	16
Net investment result – unit-linked and with-profit business	5 382	3 315	-38
Other revenues	28	32	14
Total revenues	43 786	42 487	-3
Expenses			
Claims and claim adjustment expenses	-12 564	-16 730	33
Life and health benefits	-10 859	-11 083	2
Return credited to policyholders	-5 099	-3 298	-35
Acquisition costs	-6 928	-6 977	1
Operating expenses	-3 358	-3 308	-1
Total expenses before interest expenses	-38 808	-41 396	7
Income before interest and income tax expense	4 978	1 091	-78
Interest expenses	-606	-566	-7
Income before income tax expense	4 372	525	-88
Income tax expense	-749	-132	-82
Net income before attribution of non-controlling interests	3 623	393	-89
Income/loss attributable to non-controlling interests	3	5	67
Net income after attribution of non-controlling interests	3 626	398	-89
Interest on contingent capital instruments, net of tax	-68	-67	-1
Net income attributable to common shareholders	3 558	331	-91
Changes in equity			
USD millions	2016	2017	Change in %
Total shareholders' equity as of 1 January	33 517	35 634	6
Net income attributable to common shareholders	3 558	331	-91
Dividends	-1 561	-1 559	-
Change in unrealised gains/losses on securities, net	1 711	287	-83
Change in other-than-temporary impairment, net of tax	6	3	-50
Change in foreign currency translation	-387	526	-
Purchase/sale of treasury shares and share based payments	-1 084	-1 100	1
Other changes in equity	-126	2	-
Total shareholders' equity as of 31 December	35 634	34 124	-4
Non-controlling interests	82	170	107
Total equity as of 31 December	35 716	34 294	-4

SUMMARY BALANCE SHEET

USD millions	2016	2017	Change in %
Assets			
Fixed income securities	93 276	101 786	9
Equity securities	3 435	3 865	13
Other investments	15 218	16 234	7
Short-term investments	10 909	4 846	-56
Investments for unit-linked and with-profit business	32 178	35 166	9
Cash and cash equivalents	9 011	6 806	-24
Deferred acquisition costs	6 200	6 871	11
Acquired present value of future profits	2 003	1 989	-1
Reinsurance recoverable	7 461	7 942	6
Other reinsurance assets	21 454	22 989	7
Goodwill	3 965	4 172	5
Other	9 955	9 860	-1
Total assets	215 065	222 526	3
Liabilities and equity			
Unpaid claims and claim adjustment expenses	57 355	66 795	16
Liabilities for life and health policy benefits	41 176	42 561	3
Policyholder account balances	34 354	37 537	9
Other reinsurance liabilities	16 086	15 914	-1
Short-term debt	1 564	433	-72
Long-term debt	9 787	10 148	4
Other	19 027	14 844	-22
Total liabilities	179 349	188 232	5
Shareholders' equity	35 634	34 124	-4
Non-controlling interests	82	170	107
Total equity	35 716	34 294	-4
Total liabilities and equity	215 065	222 526	3

Group results – Swiss Re

reported a full-year net income of USD 331 million, despite the large natural catastrophes of 2017.

Swiss Re's estimated insurance claims from large natural catastrophes, including Cyclone Debbie in Australia, the Atlantic hurricanes, the Mexican earthquakes and the Californian wildfires amounted to USD 4.7 billion in 2017, net of retrocession and before tax. In 2016, the Group had reported a net income of USD 3.6 billion, incurring natural catastrophe claims of USD 0.8 billion.

Return on equity for 2017 was 1.0%, down from 10.6% in the previous year. Common shareholders' equity decreased to USD 33.4 billion as of 31 December 2017, a reduction of 3.4% compared to the end of 2016.

Reinsurance generated a net income of USD 679 million, compared to USD 2.9 billion in 2016. Property & Casualty Reinsurance reported a net loss of USD 413 million in 2017, down from a net income of USD 2.1 billion in 2016. This loss stemmed from estimated insurance claims in the aftermath of a string of large natural catastrophes, which amounted to USD 3.7 billion, net of retrocession and before tax. The net operating margin was -1.3%, compared to 15.4% in the prior-year period.

Life & Health Reinsurance contributed a net income of USD 1.1 billion in 2017, up from USD 807 million in 2016, driven by a stable underwriting result and strong investment performance. The net operating margin increased to 13.1% in 2017 from 10.4% in the previous year.

Corporate Solutions incurred a net loss of USD 741 million in 2017, compared to a net income of USD 135 million in the prior year, significantly impacted by large natural catastrophes, which generated insurance claims of USD 1.0 billion, net of retrocession and before tax. The net operating margin was -23.5% and 4.2% for 2017 and 2016, respectively.

Life Capital delivered a net income of USD 161 million in 2017, compared to USD 638 million in 2016. Large one-off realised gains on the investment portfolio in the prior year were, as expected, not repeated in 2017. As a result, Life Capital's net operating margin declined to 10.9% in 2017, compared to 27.0% for 2016.

The Group's net operating margin for 2017 was 2.8%, down from 13.0% in the prior year.

Common shareholders' equity, excluding non-controlling interests and the impact of contingent capital instruments, decreased to USD 33.4 billion at the end of 2017, down from USD 34.5 billion at the end of 2016. The decline mainly reflected a payment to shareholders of USD 2.6 billion for the 2016 regular

dividend and the share buy-back programmes, partially offset by a change in unrealised gains and favourable foreign exchange rate movements.

Swiss Re achieved a return on equity of 1.0% for 2017, compared to 10.6% for 2016. Earnings per share for 2017 were CHF 1.02 or USD 1.03, compared to CHF 10.55 (USD 10.72) for 2016.

Book value per common share stood at USD 106.09 or CHF 103.37 at the end of 2017, compared to USD 105.93 or CHF 107.64 at the end of 2016. Book value per common share is based on common shareholders' equity and excludes non-controlling interests and the impact of contingent capital instruments.

Business performance

Premiums earned and fee income for the Group amounted to USD 33.7 billion for 2017, an increase of 1.4% year-on-year. At constant exchange rates, premiums and fees rose by 1.6%. Gross premiums written decreased in the same period by 2.4% to USD 34.8 billion, driven by a reduction in deployed capacity in Property & Casualty Reinsurance.

Property & Casualty Reinsurance contributed USD 16.7 billion of premiums earned in 2017, a drop from USD 17.0 billion in 2016. The decline was driven by continued underwriting discipline and active portfolio management. The Property & Casualty Reinsurance combined ratio was 111.5% in 2017, up from 93.5% in the prior year due to the severe large natural catastrophe losses, partially offset by favourable prior-year development.

Life & Health Reinsurance premiums earned and fee income totalled USD 12.0 billion in 2017, an increase of 3.9% year-on-year, driven by new business in the Americas and Asia.

Corporate Solutions premiums earned were USD 3.7 billion for 2017, an increase of 4.2% compared to the previous year. The Corporate Solutions combined ratio was 133.4% in 2017, up from 101.1% in the previous year, reflecting the significant natural catastrophe losses in 2017.

Premiums earned and fee income for Life Capital increased by 17.9% to USD 1.4 billion, mainly driven by growth in the open book life and health insurance business. Life Capital continued to generate strong gross cash amounting to USD 998 million in 2017, up from USD 721 million in 2016, benefiting from strong underlying surplus, including an update to mortality assumptions and the finalisation of the 2016 year-end Solvency II statutory valuation.

Investment result and expenses

Swiss Re's return on investments for 2017 was very strong at 3.9%, compared to 3.4% in 2016. Non-participating net investment income remained broadly stable at USD 3.7 billion. The Group reported non-participating net realised investment gains of USD 1.7 billion in 2017 compared to USD 1.5 billion in 2016, supported by additional realised gains from sales of equity securities, which were partially offset by the absence of gains from derivatives.

Acquisition costs for the Group amounted to USD 7.0 billion in 2017, slightly up from USD 6.9 billion in 2016.

Operating expenses of USD 3.3 billion in 2017 decreased by 1.5% year-on-year.

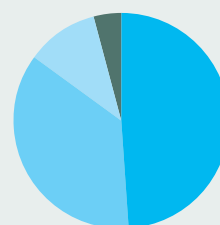
Interest expenses were USD 566 million, down by 6.6% year-on-year.

The Group reported a tax charge of USD 132 million on a pre-tax income of USD 525 million for 2017, compared to a tax charge of USD 749 million on a pre-tax income of USD 4.4 billion for 2016. This translated into an effective tax rate in the current and prior-year reporting periods of 25.1% and 17.1%, respectively. The tax rate in 2017 was largely driven by profits earned in higher tax jurisdictions, tax charges from foreign currency translation differences between statutory and US GAAP accounts and expenses not allowed for local tax purposes, partially offset by tax benefits of USD 93 million from US tax law changes.

NET PREMIUMS AND FEES EARNED BY BUSINESS SEGMENT, 2017

Total: USD 33.7 billion

- 49% P&C Reinsurance
- 36% L&H Reinsurance
- 11% Corporate Solutions
- 4% Life Capital



Group underwriting

Competitive advantage in underwriting

In the world of re/insurance underwriting, Swiss Re can outperform in two ways. First, we can change the capital allocated to particular risk pools as markets move and we develop new insights. Second, we can be selective in underwriting individual risks.

Systematic allocation of capital to risk pools is at the heart of our Group strategy. An annual top-down capital allocation underpins our business planning process; throughout the year, we actively steer our deployed capacity to maximise return. This activity is rooted in our ability to take a forward-looking perspective on the economics of risk pools and allocate capital accordingly.

Risk selection is a capability honed at Swiss Re through more than 150 years of experience. We succeed by continually investing in our ability to align our interests with those of our clients, understand individual risks and their drivers, select good risks and accurately assess the costs of taking a particular one. At its core, this is a knowledge-based capability – combining the art of the underwriter with scientific rigour.

The common thread is our investment in R&D, which equips our underwriters with distinctive knowledge and insights into the future of risk pools. The launch of the Swiss Re Institute in 2017 embodies our commitment to creating and benefiting from cutting-edge knowledge and conducting fundamental research into trends that could have an impact on our business.

Our investment includes 450 people in core and extended R&D teams committed either wholly or partially to developing our knowledge assets. To give just a few examples, in the past year alone we have investigated long-term mortality trends, evaluated the impact of distracted driving, evaluated changes in the propensity to litigate, and estimated the impact of changing mid-Atlantic temperatures. We combine data and innovative analytical tools, and partner with academics from institutions around the world, consultants, professionals from all disciplines, start-ups, institutions and others. This translates into real bottom-line impact through services to our clients, automated pricing tools, inputs to underwriters and research behind our forward-looking perspectives on risk pools.

It is this investment in focused and targeted R&D that will maintain our market-leading ability to steer through allocating capital to risk pools, and distinctively underwrite risks.

Underwriting performance in 2017

Notwithstanding the natural catastrophes in 2017, the Group's overall underwriting performance was solid across all businesses. Financial year results were dominated by insured natural catastrophe losses figuring among the largest on record, and further influenced by a continued softening market environment in 2017.

The Group's claims ratio for property and casualty increased from 61.2% in 2016 to 82.3% in 2017.

The 2017 loss burden totalled USD 4.7 billion, driven by losses associated with Cyclone Debbie in Australia, hurricanes Harvey, Irma and Maria as well as the Mexico earthquakes, and the Californian wildfires.

The total life and health benefits increased from USD 9.0 billion in 2016 to USD 9.2 billion in 2017. The increase was mainly due to the earnings development of US Individual Life transactions that were closed in late 2016, a large transaction win in Europe starting in July 2017 and from Asia, where we experienced very strong organic growth in several business lines.

Market environment and outlook

In recent years, new capital flowing into the industry has depressed prices and driven certain areas of risk pools to unsustainable levels of return. The significant natural catastrophe losses of 2017 have seen a reversal of this trend. We expect this increased pricing discipline to be maintained in the near term, supporting further profitable growth. Overall, we expect a further improvement in pricing, especially in lines directly affected by the 2017 natural catastrophe events.

The underlying pool of insurable risks will continue to grow in the context of the continuing cyclical upswing in the global economy. The small inflation rises of the past year will not significantly impact claims severity in our view, but we remain cautious about potential long-term effects.

Our outlook is more positive than in the last few years, and we see opportunities available to us through three distinctive abilities. Our ability to engage in large and tailored transactions has created a market in which few others are even able to operate. We continue to see growing demand for solutions and services that deploy our R&D to clients. Finally, we retain our ability to rapidly and flexibly deploy capital across industry-leading products and geographic franchises.

We anticipate that our very strong capitalisation will allow us to realise opportunities not available to others. However, we will only seek opportunities where prices meet our hurdle rates.

Group investments

Strategy

Swiss Re's investment portfolio maintained its track record of sustainable performance results, with another strong contribution in 2017. All asset classes contributed to the result, reflecting the diversification of investment income sources as well as the quality of the investment portfolio. During 2017, Swiss Re increased its overall allocation to government bonds and credit investments alongside a reduction in cash and short-term investments, enhancing income with low-duration risk. The allocation to equities and alternative investments remained relatively stable. While the investment portfolio is well positioned overall, the Group maintains suitable flexibility should it be presented with attractive market opportunities or a change in the investment outlook.

Financial markets overview

Financial markets continued to centre on monetary policy and broader political developments in 2017. On the political front, while the French presidential election in April and May ultimately turned out as expected, uncertainty in the US and the UK remained high due to economic policy and Brexit, respectively.

That being said, financial markets largely shrugged off the political uncertainty. Equity markets rallied through most of the year, with the S&P 500 reaching new all-time highs and returning more than 20% in 2017. Investment-grade corporate bond spreads tightened further, reaching multi-year lows, while government bond yields ended 2017 at levels broadly similar to those at the beginning of the year. Notably, financial market volatility has remained exceptionally low across the major asset classes.

The positive investor sentiment and benign market environment was supported by stronger-than-expected economic growth data, with the global recovery becoming more solid and broad-based across regions. At the same time, inflationary pressures remained subdued, which allowed central banks to slowly and carefully start to normalise monetary policy.

Net investment income

in USD billion, 2017

3.7

(2016: USD 3.7 billion)

Group return on investments

2017

3.9%

(2016: 3.4%)

Fixed Income Running Yield

2017

2.9%

(2016: 2.9%)

Investment result

The Group's investment portfolio, excluding unit-linked and with-profit investments, increased to USD 131.7 billion at the end of 2017, compared to USD 130.5 billion at the end of 2016. The increase was driven by positive returns from most asset classes and a weakening of the US dollar.

The return on investments for 2017 was very strong at 3.9%, with over 85% of the result attributable to net investment income as well as net realised gains from equities and alternative investments. This compared to a return on investments of 3.4% in 2016, with the increase primarily due to additional net realised gains related to equity securities. The Group's non-participating net investment income was relatively stable at USD 3.7 billion in 2017 compared to the prior year. The Group's fixed income running yield was steady at 2.9%.

The Group reported non-participating net realised investment gains of USD 1.7 billion in 2017 compared to USD 1.5 billion in 2016, as additional realised gains from sales within the equity portfolio were partially offset by the absence of gains from derivatives.

Outlook

The focus in 2018 is set to remain on central bank policy, inflation and global political developments. In terms of economic outlook, global economic growth is expected to stay solid, both in developed and emerging market economies, while inflation is forecast to modestly increase globally. This, in turn, should allow the key central banks to continue their cautious policy normalisation path. The Federal Reserve is set to hike rates further (while slowly reducing the size of its balance sheet), and the European Central Bank is likely to fully wind down its asset purchase programmes by the end of the year. From a regional perspective, growth should stay solid in both the US and the Eurozone, but be more modest in the UK amid continued Brexit-related uncertainty. Meanwhile, economic growth in China next year is expected to moderately slow from current levels.

Risks to the outlook are seen as broadly balanced, with inflation and political developments (e.g. Brexit negotiations, Italian elections, the formation of a grand coalition in Germany) being the key factors to watch. Still, given the current stage of the economic cycle set against the backdrop of generally high asset valuations, we will maintain a well-diversified and high-quality investment portfolio.

Reinsurance – While our 2017 performance was clearly impacted by significant natural catastrophes, our role in society and for our clients has rarely been more evident.

Strategy and priorities

The world experienced a number of severe natural catastrophes during 2017 that impacted our Property & Casualty segment, but they also helped us show the value that Swiss Re brings to our clients. It is at times such as these that our clients see the tangible benefits of having reinsurance coverage with Swiss Re.

Our Reinsurance Business Unit strategy remains focused on differentiation and profitable growth through allocation of capital to both existing and new risk pools. We believe that macro factors such as demographic changes and the expected rise in global GDP will continue to expand these risk pools in both Property & Casualty and Life & Health Reinsurance. The significant global protection gap, which exists today in both lines of business, is expected to continue to widen and will also

contribute significantly to creating new risk pools in the future. As a result, we expect to see further business opportunities, particularly in high-growth markets, but also in countries with mature economies. The numerous natural catastrophes experienced in 2017 also highlight the gap that exists between insured losses and the much higher level of economic loss. Closing this protection gap will deliver a clear benefit to our clients and will help make the world more resilient.

Differentiation and client relationships

We differentiate ourselves by understanding the specific needs of our clients. Client segmentation is a foundational element of our differentiation approach and is built on a deep understanding of our clients, facilitating delivery of tailored offerings.

We interact with clients across all levels and functions, enabling strategic discussions between the right people at the right time. This dedicated delivery model – serving global, large as well as regional and national clients – continues to be effective.

Clients are always looking for solutions to solve their business challenges. In parallel with our engagement approach, we have established teams to marry our clients' needs, which expand on traditional reinsurance, with our knowledge, risk bearing capacity and innovation. Taken together, such tailored transactions and solutions help clients to sustainably grow their business.

The role of technology

The use of ever-changing technology is a crucial aspect of our business. We identify challenges along the entire insurance value chain that technology could solve. We also work with our partners to exploit new developments and advances. Our focus is on solving business challenges, whether for our clients or ourselves.

We leverage technology to understand risks better, improve underwriting and pricing and to increase efficiency. To help our clients improve their performance, we have developed new solutions such as an end-to-end telematics platform, predictive analytics to identify non-smokers or mobile underwriting platforms for life insurance.

We also prioritise internal efficiency. One example is our P&C Business Management Intelligence tool, which leverages big data techniques for claims management. Technology is a critical catalyst for change which we will continue to use in order to more effectively address the needs of both our clients' and ourselves.

Property & Casualty Reinsurance

Property & Casualty Reinsurance reported a net loss for 2017 of USD 413 million compared to a net income of USD 2.1 billion in 2016. The decrease was mainly driven by the adverse large loss experience (estimated total insurance claims of USD 3.7 billion) mainly stemming from Cyclone Debbie, hurricanes Harvey, Irma and Maria in the Americas, the two earthquakes in Mexico and the wildfires in California. These losses were only partially offset by favourable prior-year development and a strong overall investment result. The net operating margin was -1.3% in 2017, down from 15.4% in 2016.

The overall investment result was USD 1.6 billion in 2017 compared to USD 1.8 billion in 2016. Net investment income was USD 1.0 billion in 2017, reflecting higher income from alternative investments. Net realised gains of USD 613 million decreased compared to 2016 by USD 157 million, as the prior year included a favourable impact from foreign exchange remeasurement.

Premiums

Net premiums earned were USD 16.7 billion in 2017 (-2.0%) compared to USD 17.0 billion in 2016. The decline in gross premiums written to USD 16.5 billion in 2017 (-8.8%) compared to USD 18.1 billion in 2016 was the result of a reduction in deployed capacity where prices did not meet Swiss Re's profitability expectations.

Combined ratio

Property & Casualty Reinsurance reported a combined ratio of 111.5% for 2017, compared to 93.5% in the prior year. The impact from natural catastrophes in 2017 was 14.8 percentage points above the expected level for 2017 of 7.1 percentage points. The favourable development of prior accident years improved the combined ratio by 3.3 percentage points in 2017, compared to a 3.0 percentage point improvement in 2016.

PROPERTY & CASUALTY RESULTS

USD millions	2016	2017	Change in %
Revenues			
Gross premiums written	18 149	16 544	-9
Net premiums written	17 768	16 031	-10
Change in unearned premiums	-760	636	-
Premiums earned	17 008	16 667	-2
Net investment income	985	1 017	3
Net realised investment gains/losses	770	613	-20
Other revenues	37	48	30
Total revenues	18 800	18 345	-2
Expenses			
Claims and claim adjustment expenses	-10 301	-13 172	28
Acquisition costs	-4 405	-4 253	-3
Operating expenses	-1 204	-1 159	-4
Total expenses before interest expenses	-15 910	-18 584	17
Income/loss before interest and income tax expense			
Interest expenses	2 890	-239	-
Income/loss before income tax expense	2 597	-519	-
Income tax expense/benefit	-479	125	-
Net income/loss before attribution of non-controlling interests	2 118	-394	-
Income/loss attributable to non-controlling interests	1	-	-
Net income/loss after attribution of non-controlling interests	2 119	-394	-
Interest on contingent capital instruments, net of tax	-19	-19	-
Net income/loss attributable to common shareholders	2 100	-413	-
Claims ratio in %	60.5	79.0	
Expense ratio in %	33.0	32.5	
Combined ratio in %	93.5	111.5	

Administrative expense ratio

The administrative expense ratio of 7.0% in 2017 was in line with the 7.1% ratio in 2016.

Lines of business

The property combined ratio increased to 119.9% in 2017, compared to 86.6% in 2016, primarily due to the large natural catastrophe loss burden in 2017.

The casualty combined ratio increased to 108.8% in 2017, compared to 103.9% in 2016, driven by adverse developments in Motor in both EMEA and the US.

The specialty combined ratio increased to 98.4% for 2017, compared to 77.8% in 2016, primarily due to large losses in the marine lines of business from hurricanes in the Americas and Cyclone Debbie in Australia.

Investment result

The return on investments was 3.5% for 2017, compared to 3.1% in 2016, reflecting an increase in the investment result of USD 155 million.

Net investment income increased by USD 30 million to USD 922 million for 2017, mainly due to additional income from alternative investments.

Net realised gains were USD 590 million for 2017, compared to USD 475 million for the prior year, with the increase stemming from additional gains from sales of equity securities, partially offset by a reduction in gains from sales of fixed income securities.

Insurance-related investment results as well as foreign exchange gains/losses are not included in the figures above.

Shareholders' equity

Common shareholders' equity decreased to USD 10.8 billion as of 31 December 2017 from USD 12.7 billion as of 31 December 2016, primarily driven by dividends paid to the Group of USD 1.95 billion and the net loss for the year. The return on equity for 2017 was -3.5% compared to 16.4% in 2016. The decrease was due to the net loss in 2017.

Outlook

Recent natural catastrophe events led to rate increases for Property in loss-affected markets with ranges depending on the client and market loss. Rates have increased more moderately in most other markets.

We observed notable differences by line of business for Specialty Lines with rate increases for loss-affected lines and markets, and moderately improving conditions in general.

Pressure on general contract provisions also eased. Overall, trading conditions improved for most Property & Specialty lines.

For Casualty, rates increased in segments where price levels appeared inadequate due to claims emergence (eg. UK Motor, US Motor and Liability). We also saw commissions reducing to address non performance.

Lastly, we continued to see some good opportunities for transactions and participated on those that met our requirements.

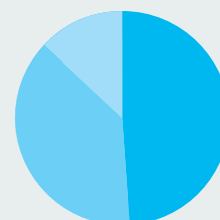
For Property and Casualty generally, we reduced our participation or exited accounts where we could not get the rate adjustment or terms and conditions that we deemed appropriate. Our focus remains on the bottom line in a recovering but still challenging market environment.

We seek to execute our successful differentiation strategy and to support our clients to reach their ambitions.

PREMIUMS EARNED BY LINE OF BUSINESS, 2017

Total: USD 16.7 billion

- 49% Casualty
- 38% Property
- 13% Specialty



Life & Health Reinsurance

Net income was USD 1.1 billion for 2017, a significant increase from the previous year's net income of USD 807 million, mainly due to higher realised gains from sales of equity securities and stable underwriting performance. The underwriting result in the current year reflected the transactions closed and continued growth in the US and Asian markets and net positive valuation updates, partly impacted by adverse claims experience in the US individual life and UK critical illness portfolios. The return on equity was 15.3%, compared to 12.8% reported for 2016.

Premiums

Net premiums earned and fee income in 2017 increased by 3.9% to USD 12.0 billion compared to USD 11.5 billion for the prior year. Gross premiums written increased by 4.0% to USD 13.3 billion compared to USD 12.8 billion for the prior year. The increase in premiums was mainly due to new business wins and growth in the US and Asia.

Net operating margin

The net operating margin for 2017 was 13.1%, increasing significantly from 10.4% in 2016 mainly due to higher realised gains.

Management expense ratio

The management expense ratio was 5.7%, a slight decrease from 6.0% in 2016.

Lines of business

Income before interest and income tax expense (EBIT) for the Life segment increased to USD 935 million for 2017, from USD 867 million in the prior year. The results in 2017 reflected the new business wins and growth across markets, supported by a higher investment income allocation. In addition, the experience in the US individual life portfolio was less unfavourable in the current year.

EBIT for the Health segment increased to USD 345 million for 2017 from USD 268 million in the prior year. The current year reflected the significant

LIFE & HEALTH RESULTS

USD millions	2016	2017	Change in %
Revenues			
Gross premiums written	12 801	13 313	4
Net premiums written	11 459	11 826	3
Change in unearned premiums	27	25	-7
Premiums earned	11 486	11 851	3
Fee income from policyholders	41	129	—
Net investment income – non-participating business	1 279	1 308	2
Net realised investment gains/losses – non-participating business	232	591	155
Net investment result – unit-linked and with-profit business	15	81	—
Other revenues	5	3	-40
Total revenues	13 058	13 963	7
Expenses			
Life and health benefits	-8 963	-9 211	3
Return credited to policyholders	-39	-119	—
Acquisition costs	-1 943	-2 064	6
Operating expenses	-763	-754	-1
Total expenses before interest expenses	-11 708	-12 148	4
Income before interest and income tax expense	1 350	1 815	34
Interest expenses	-301	-315	5
Income before income tax expense	1 049	1 500	43
Income tax expense	-193	-360	87
Net income before attribution of non-controlling interests	856	1 140	33
Income/loss attributable to non-controlling interests			
Net income after attribution of non-controlling interests	856	1 140	33
Interest on contingent capital instruments, net of tax	-49	-48	-2
Net income attributable to common shareholders	807	1 092	35
Management expense ratio in %	6.0	5.7	
Net operating margin in %	10.4	13.1	

growth in the health portfolio in Asia and net favourable valuation updates. This was partly offset by the adverse performance in the UK critical illness business and a lower investment income allocation.

Investment result

The return on investments for 2017 was 4.3%, compared to 3.6% in 2016, reflecting an increase in the investment result of USD 280 million.

Net investment income increased slightly by USD 5 million to USD 1 105 million in 2017. The fixed income running yield for 2017 was 3.3%.

Net realised gains were USD 459 million in 2017, compared to USD 184 million for the prior year, reflecting additional gains from sales of equity securities and corporate bonds.

Insurance-related investment results as well as foreign exchange gains/losses are not included in the figures above.

Shareholders' equity

Common shareholders' equity increased to USD 7.5 billion as of 31 December 2017 from USD 6.8 billion as of 31 December 2016. The movement of USD 659 million in equity reflected the net income increase and changes in net unrealised gains, partly offset by dividends of USD 650 million paid to the Group.

Return on equity was strong at 15.3% in 2017, compared to 12.8% in 2016. The increase was due to a higher net income in 2017, partly offset by a higher average equity balance.

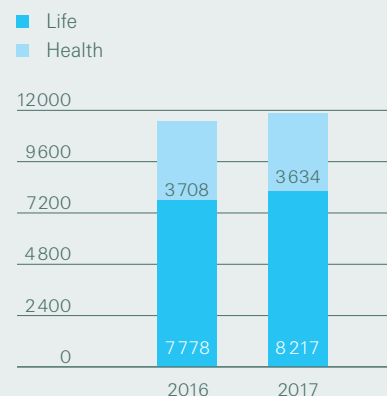
Outlook

We expect life and health reinsurance business to be relatively flat in mature markets and to increase in high-growth markets. In mature markets, the prolonged low interest rate environment continues to have an unfavourable impact on long-term life business. Cession rates in the US have decreased in recent years as primary insurers retain more risk, but have now generally levelled off. However, we see a strong focus on capital, risk and balance sheet optimisation in mature markets, leading to opportunities for large transactions. High-growth markets are expected to see strong increases in primary life and health volumes and cession rates are expected to be stable.

We will continue to pursue growth opportunities in high-growth markets and in large transactions, including longevity deals. We are responding to the expanding need for health protection driven by ageing societies and we will apply our risk knowledge experience to help reduce the protection gap in all regions.

PREMIUMS EARNED BY LINE OF BUSINESS, 2017

Total: USD 11.9 billion



Corporate Solutions – Corporate Solutions results were significantly impacted by natural catastrophe events.

Strategy and priorities

Swiss Re strengthened Corporate Solutions' capital position, underlining the Group's commitment to the business and its long-term strategy. Corporate Solutions continued to make progress on its strategy with investment into its Primary Lead capabilities and further broadened its footprint.

In July 2017, Corporate Solutions finalised the previously announced transaction and began its joint venture with Bradesco Seguros S.A. in Brazil – now one of the leading large-risk insurers in the country – to bring our innovative product offering to an even wider segment of mid-sized and large corporate clients. Corporate Solutions is now concentrating its efforts on the integration of Bradesco's large-risk portfolio and leveraging its established distribution network.

During 2017, the Business Unit opened offices in Kuala Lumpur, Malaysia and Manchester, United Kingdom, focusing on servicing large and mid-sized companies in these countries.

Performance

Net loss was USD 741 million in 2017, compared to net income of USD 135 million in 2016, with a net operating margin of –23.5%, down from 4.2%. The 2017 result was significantly impacted by higher large natural catastrophe losses, which amounted to USD 1.0 billion, and continued pricing pressure throughout most of the year. The investment result was higher in 2017 compared to 2016, driven by net realised gains mainly from the sale of equity securities.

Premiums

Net premiums earned were USD 3.7 billion in 2017, an increase of 4.2% compared to 2016. The increase was driven by organic and inorganic growth across most lines of business. Gross premiums written and premiums for insurance in derivative form, net of internal fronting for the Reinsurance Business Unit, remained broadly unchanged at USD 4.1 billion in 2017. The expansion into Primary Lead compensated for declining rates in the excess layer segment.

Combined ratio

The combined ratio increased to 133.4% in 2017 compared to 101.1% in 2016, due to the large natural catastrophe losses, mainly driven by hurricanes Harvey, Irma and Maria in the third quarter of 2017.

Lines of business

The property combined ratio for 2017 deteriorated by 89.6 percentage points to 174.0%, reflecting the impact of the above-mentioned hurricanes, Californian wildfires, the earthquake in Puebla, Mexico and tropical Cyclone Debbie in Australia earlier in the year.

The casualty combined ratio increased to 122.0% in 2017 compared to 115.9% in 2016. Both periods experienced large liability losses in North America. The majority of the large losses reported in the current period occurred in 2015/2016. The magnitude and responsibility for these losses were only established in 2017.

The specialty combined ratio for 2017 decreased slightly by 0.6 percentage points to 101.6%. 2017 was impacted by higher marine and engineering losses due to the natural catastrophe events and a large aviation loss. The credit and surety portfolio returned to technical profitability.

Investment result

The return on investments was 3.4% for 2017, compared to 2.5% in 2016, reflecting an increase in the investment result of USD 86 million, stemming from higher net realised gains.

Net investment income increased by USD 25 million to USD 183 million for 2017, mainly due to additional income from government bonds, partially driven by a higher asset volume.

Net realised gains were USD 118 million compared to USD 57 million in 2016, reflecting additional gains from sales of equity securities.

Insurance-related derivative results and foreign exchange gains/losses are not included in the investment figures.

Corporate Solutions offers insurance protection against weather perils and other risks, which is accounted for as derivatives. Insurance in derivative form reported net realised gains of USD 12 million in 2017, compared to USD 16 million in 2016, reflecting the impact of the unseasonably mild winter in both periods and the extremely cold weather in the US at the end of 2017.

Shareholders' equity

Common shareholders' equity increased by USD 0.2 billion to USD 2.4 billion at the end of 2017, due to the Group's injection of USD 1 billion capital in the fourth quarter, partially offset by the net loss for the period and a dividend of USD 150 million paid to the Group in the second quarter of the year. The return on equity was -32.2% in 2017, compared to 6.0% in 2016.

CORPORATE SOLUTIONS RESULTS

USD millions	2016	2017	Change in %
Revenues			
Gross premiums written	4155	4193	1
Net premiums written	3662	3600	-2
Change in unearned premiums	-159	51	-
Premiums earned	3503	3651	4
Net investment income	138	161	17
Net realised investment gains/losses	51	128	151
Other revenues	5	5	-
Total revenues	3697	3945	7
Expenses			
Claims and claim adjustment expenses	-2263	-3558	57
Acquisition costs	-517	-554	7
Operating expenses	-760	-759	-
Total expenses before interest expenses	-3540	-4871	38
Income/loss before interest and income tax expense			
	157	-926	-
Interest expenses	-23	-23	-
Income/loss before income tax expense	134	-949	-
Income tax expense/benefit	-1	203	-
Net income/loss before attribution of non-controlling interests	133	-746	-
Income/loss attributable to non-controlling interests	2	5	150
Net income/loss attributable to common shareholders	135	-741	-
Claims ratio in %	64.6	97.4	
Expense ratio in %	36.5	36.0	
Combined ratio in %	101.1	133.4	

Outlook

Prices for commercial insurance have been under significant pressure in the past years, with a majority of segments operating at unsustainable rate levels since 2015. We expect a medium-paced, steady increase of prices over the next 12 to 18 months following the recent natural catastrophe events, with most pronounced increases in property in the US and a reinforced focus on terms and conditions. Corporate Solutions will maintain its commitment to underwriting discipline.

Life Capital – Life Capital's strategy is to create alternative access to attractive life and health risk pools.

Strategy and priorities

During 2017, the open book businesses saw significant growth in the number of policies sold. For the closed book business, ReAssure continued to pursue selective growth.

In October 2017, Swiss Re reached an agreement with MS&AD Insurance Group Holdings Inc (MS&AD) for an investment of up to GBP 800 million in ReAssure, strengthening its ability to pursue growth. In December, ReAssure agreed to purchase 1.1 million Legal & General life policies for GBP 650 million, in line with its strategy to acquire closed life books in the UK and further strengthen its market position.

Life Capital seeks to optimise capital and asset management and to maximise cash generation and return on equity. In the closed book business, the focus remains on achieving operational efficiencies by leveraging our operating platform. In the open book business, Life Capital continued to invest in its technology platform during 2017, to position both elipsLife and iptiQ to grasp growth opportunities in their respective businesses.

Performance

In 2017, net income for Life Capital was USD 161 million, a decline from USD 638 million in 2016, with the 2016 performance benefitting from large one-off realised gains on the investment portfolio that were, as expected, not repeated. The underlying performance in 2017 was supported by realised gains on sales of fixed income securities and favourable UK investment market performance.

The net operating margin in 2017 was 10.9% compared to 27.0% in the prior year, in line with movements in net income.

Life Capital generated significant gross cash of USD 998 million during 2017, compared to USD 721 million in the prior year. The gross cash generated in 2017 was driven by the strong underlying surplus on the ReAssure business. It further benefitted from an update to mortality assumptions and the finalisation of the 2016 year-end Solvency II statutory valuation.

Life Capital paid a dividend of USD 1.1 billion to the Group during June 2017, driven by the strong capital position of the ReAssure business.

Premiums

Gross premiums written increased by 18.3% to USD 1.8 billion during 2017, mainly driven by growth in the open book businesses, offsetting the run-off of the closed books, as well as foreign exchange rate movements. Net premiums earned increased from growth in the open book life and health insurance businesses.

LIFE CAPITAL RESULTS

USD millions	2016	2017	Change in %
Revenues			
Gross premiums written	1 489	1 761	18
Net premiums written	681	859	26
Change in unearned premiums	13	91	—
Premiums earned	694	950	37
Fee income from policyholders	499	457	-8
Net investment income – non-participating business	1 256	1 193	-5
Net realised investment gains/losses – non-participating business	503	133	-74
Net investment result – unit-linked and with-profit business	5 367	3 234	-40
Other revenues	1	2	100
Total revenues	8 320	5 969	-28
Expenses			
Life and health benefits	-1 896	-1 872	-1
Return credited to policyholders	-5 060	-3 179	-37
Acquisition costs	-63	-106	68
Operating expenses	-503	-514	2
Total expenses before interest expenses	-7 522	-5 671	-25
Income before interest and income tax expense	798	298	-63
Interest expenses	-29	-35	21
Income before income tax expense	769	263	-66
Income tax expense	-131	-102	-22
Net income attributable to common shareholders	638	161	-75

Investment result

The return on investments was 3.4% for 2017, compared to 4.0% in 2016. The prior-year result included significant net realised gains from interest rate derivatives as well as higher net investment income.

Net investment income decreased by USD 48 million to USD 894 million in 2017, mainly due to a negative impact from foreign exchange rate movements.

Net realised gains decreased by USD 110 million to USD 111 million in 2017, reflecting the lower impact from interest rate derivatives.

Insurance-related investment results as well as foreign exchange gains/losses are not included in the figures above.

Operating expenses

Operating expenses were USD 514 million in 2017 compared to USD 503 million in 2016, including investment in 2017 for the open book expansion.

Shareholders' equity

Common shareholders' equity decreased by USD 0.2 billion to USD 7.1 billion, compared to 31 December 2016. The decrease was mainly driven by a USD 1.1 billion dividend paid to the Group, partially offset by net income and higher unrealised gains in 2017. The annualised return on equity was 2.2% for 2017, compared to 10.4% for 2016. The year-on-year decrease was due to lower net income in 2017.

Outlook

Life Capital continues to pursue selective acquisition opportunities within the closed book market in the UK and is focused on growing its individual and group life and health businesses in Europe and the US. The ambition is to build a leading primary life and health business, with attractive returns for shareholders.

Income statement

For the years ended 31 December

USD millions	Note	2016	2017
Revenues			
Gross premiums written	4	35 622	34 775
Net premiums written	4	33 570	32 316
Change in unearned premiums		-879	803
Premiums earned	3	32 691	33 119
Fee income from policyholders	3	540	586
Net investment income – non-participating business ¹	7	3 661	3 708
Net realised investment gains/losses – non-participating business ²	7	1 484	1 727
Net investment result – unit-linked and with-profit business	7	5 382	3 315
Other revenues		28	32
Total revenues		43 786	42 487
Expenses			
Claims and claim adjustment expenses	3	-12 564	-16 730
Life and health benefits	3	-10 859	-11 083
Return credited to policyholders		-5 099	-3 298
Acquisition costs	3	-6 928	-6 977
Operating expenses		-3 358	-3 308
Total expenses before interest expenses		-38 808	-41 396
Income before interest and income tax expense		4 978	1 091
Interest expenses		-606	-566
Income before income tax expense		4 372	525
Income tax expense		-749	-132
Net income before attribution of non-controlling interests		3 623	393
Income/loss attributable to non-controlling interests		3	5
Net income after attribution of non-controlling interests		3 626	398
Interest on contingent capital instruments, net of tax		-68	-67
Net income attributable to common shareholders		3 558	331
Earnings per share in USD			
Basic	12	10.72	1.03
Diluted	12	9.82	1.03
Earnings per share in CHF³			
Basic	12	10.55	1.02
Diluted	12	9.66	1.01

¹ Total impairments for the years ended 31 December of USD 66 million in 2016 and USD 46 million in 2017, respectively, were fully recognised in earnings.

² Total impairments for the years ended 31 December of USD 88 million in 2016 and USD 57 million in 2017, respectively, were fully recognised in earnings.

³ The translation from USD to CHF is shown for informational purposes only and has been calculated using the Group's average exchange rates.

The accompanying notes are an integral part of the Group financial statements.

Statement of comprehensive income

For the years ended 31 December

USD millions	2016	2017
Net income before attribution of non-controlling interests	3 623	393
Other comprehensive income, net of tax:		
Change in unrealised investment gains/losses	1 711	287
Change in other-than-temporary impairment	6	3
Change in cash flow hedges	-7	-3
Change in foreign currency translation	-387	526
Change in adjustment for pension benefits	-119	315
Total comprehensive income before attribution of non-controlling interests	4 827	1 521
Interest on contingent capital instruments	-68	-67
Comprehensive income attributable to non-controlling interests	3	5
Total comprehensive income attributable to common shareholders	4 762	1 459

Reclassification out of accumulated other comprehensive income

For the years ended 31 December

2016 USD millions	Unrealised investment gains/losses ¹	Other-than-temporary impairment ¹	Cash flow hedges ¹	Foreign currency translation ^{1,2}	Adjustment from pension benefits ³	Accumulated other comprehensive income
Balance as of 1 January	2 748	-11	0	-5 687	-1 016	-3 966
Change during the period	2 856	6	32	-267	-201	2 426
Amounts reclassified out of accumulated other comprehensive income						
Tax	-441	-2		-120	21	-542
Balance as of period end	4 459	-5	-7	-6 074	-1 135	-2 762

2017 USD millions	Unrealised investment gains/losses ¹	Other-than-temporary impairment ¹	Cash flow hedges ¹	Foreign currency translation ^{1,2}	Adjustment from pension benefits ³	Accumulated other comprehensive income
Balance as of 1 January	4 459	-5	-7	-6 074	-1 135	-2 762
Change during the period	2 755	4	30	347	348	3 484
Amounts reclassified out of accumulated other comprehensive income						
Tax	-96	-2		196	-76	22
Balance as of period end	4 746	-2	-10	-5 548	-820	-1 634

¹ Reclassification adjustment included in net income is presented in "Net realised investment gains/losses – non-participating business".

² Reclassification adjustment is limited to translation gains and losses realised upon sale or upon complete or substantially complete liquidation of an investment in a foreign entity.

³ Reclassification adjustment included in net income is presented in "Operating expenses".

The accompanying notes are an integral part of the Group financial statements.

Balance sheet

ASSETS

As of 31 December

USD millions	Note	2016	2017
Investments	7,8,9		
Fixed income securities:			
Available-for-sale (including 10 036 in 2016 and 12 969 in 2017 subject to securities lending and repurchase agreements) (amortised cost: 2016: 85 171; 2017: 93 278)		90 581	99 248
Trading (including 1 871 in 2016 and 1 761 in 2017 subject to securities lending and repurchase agreements)		2 695	2 538
Equity securities:			
Available-for-sale (including 23 in 2016 and 277 in 2017 subject to securities lending and repurchase agreements) (cost: 2016: 2 897; 2017: 3 544)		3 375	3 862
Trading		60	3
Policy loans, mortgages and other loans		3 682	4 110
Investment real estate		1 925	2 220
Short-term investments (including 2 960 in 2016 and 411 in 2017 subject to securities lending and repurchase agreements)		10 909	4 846
Other invested assets		9 611	9 904
Investments for unit-linked and with-profit business (including fixed income securities trading: 5 153 in 2016 and 5 209 in 2017, equity securities trading: 25 807 in 2016 and 28 783 in 2017)		32 178	35 166
Total investments		155 016	161 897
Cash and cash equivalents (including 1 169 in 2016 and 322 in 2017 subject to securities lending)		9 011	6 806
Accrued investment income		1 108	1 095
Premiums and other receivables		13 270	13 834
Reinsurance recoverable on unpaid claims and policy benefits		7 461	7 942
Funds held by ceding companies		8 184	9 155
Deferred acquisition costs	6	6 200	6 871
Acquired present value of future profits	6	2 003	1 989
Goodwill		3 965	4 172
Income taxes recoverable		291	378
Deferred tax assets		5 902	4 817
Other assets		2 654	3 570
Total assets		215 065	222 526

The accompanying notes are an integral part of the Group financial statements.

LIABILITIES AND EQUITY


USD millions	Note	2016	2017
Liabilities			
Unpaid claims and claim adjustment expenses	5	57 355	66 795
Liabilities for life and health policy benefits	8	41 176	42 561
Policyholder account balances		34 354	37 537
Unearned premiums		11 629	11 769
Funds held under reinsurance treaties		2 544	3 109
Reinsurance balances payable		1 913	1 036
Income taxes payable		633	679
Deferred and other non-current tax liabilities		8 583	6 975
Short-term debt	11	1 564	433
Accrued expenses and other liabilities		9 811	7 190
Long-term debt	11	9 787	10 148
Total liabilities		179 349	188 232
Equity			
Contingent capital instruments		1 102	750
Common shares, CHF 0.10 par value			
2016: 360 072 561; 2017: 349 452 281 shares authorised and issued		34	33
Additional paid-in capital		341	368
Treasury shares, net of tax		-1 763	-1 842
Accumulated other comprehensive income:			
Net unrealised investment gains/losses, net of tax		4 459	4 746
Other-than-temporary impairment, net of tax		-5	-2
Cash flow hedges, net of tax		-7	-10
Foreign currency translation, net of tax		-6 074	-5 548
Adjustment for pension and other post-retirement benefits, net of tax		-1 135	-820
Total accumulated other comprehensive income		-2 762	-1 634
Retained earnings		38 682	36 449
Shareholders' equity		35 634	34 124
Non-controlling interests		82	170
Total equity		35 716	34 294
Total liabilities and equity		215 065	222 526

The accompanying notes are an integral part of the Group financial statements.

Statement of shareholders' equity

For the years ended 31 December

USD millions	2016	2017
Contingent capital instruments		
Balance as of 1 January	1 102	1 102
Changes during the period		-352
Balance as of period end	1 102	750
Common shares		
Balance as of 1 January	35	34
Issue of common shares		
Cancellation of shares bought back	-1	-1
Balance as of period end	34	33
Additional paid-in capital		
Balance as of 1 January	482	341
Gain on sale to minority shareholder		34
Contingent capital instrument issuance costs		8
Cancellation of shares bought back	-176	
Share-based compensation	2	-14
Realised gains/losses on treasury shares	33	-1
Balance as of period end	341	368
Treasury shares, net of tax		
Balance as of 1 January	-1 662	-1 763
Purchase of treasury shares	-1 190	-1 161
Cancellation of shares bought back	1 018	1 006
Issuance of treasury shares, including share-based compensation to employees	71	76
Balance as of period end	-1 763	-1 842
Net unrealised investment gains/losses, net of tax		
Balance as of 1 January	2 748	4 459
Changes during the period	1 711	287
Balance as of period end	4 459	4 746
Other-than-temporary impairment, net of tax		
Balance as of 1 January	-11	-5
Changes during the period	6	3
Balance as of period end	-5	-2
Cash flow hedges, net of tax		
Balance as of 1 January	0	-7
Changes during the period	-7	-3
Balance as of period end	-7	-10
Foreign currency translation, net of tax		
Balance as of 1 January	-5 687	-6 074
Changes during the period	-387	526
Balance as of period end	-6 074	-5 548
Adjustment for pension and other post-retirement benefits, net of tax		
Balance as of 1 January	-1 016	-1 135
Changes during the period	-119	315
Balance as of period end	-1 135	-820



USD millions	2016	2017
Retained earnings		
Balance as of 1 January	37 526	38 682
Net income after attribution of non-controlling interests	3 626	398
Interest on contingent capital instruments, net of tax	-68	-67
Dividends on common shares	-1 561	-1 559
Cancellation of shares bought back	-841	-1 005
Balance as of period end	38 682	36 449
Shareholders' equity	35 634	34 124
Non-controlling interests		
Balance as of 1 January	89	82
Changes during the period	-4	93
Income/loss attributable to non-controlling interests	-3	-5
Balance as of period end	82	170
Total equity	35 716	34 294

The accompanying notes are an integral part of the Group financial statements.

Statement of cash flows

For the years ended 31 December

USD millions	2016	2017
Cash flows from operating activities		
Net income attributable to common shareholders	3 558	331
Add net income/loss attributable to non-controlling interests	-3	-5
Adjustments to reconcile net income to net cash provided/used by operating activities:		
Depreciation, amortisation and other non-cash items	643	542
Net realised investment gains/losses	-5 787	-4 048
Income from equity-accounted investees, net of dividends received	135	70
Change in:		
Technical provisions and other reinsurance assets and liabilities, net	5 845	5 739
Funds held by ceding companies and under reinsurance treaties	862	-276
Reinsurance recoverable on unpaid claims and policy benefits	434	61
Other assets and liabilities, net	-37	-386
Income taxes payable/recoverable	-24	-606
Trading positions, net	489	-119
Net cash provided/used by operating activities	6 115	1 303
Cash flows from investing activities		
Fixed income securities:		
Sales	38 700	43 904
Maturities	4 218	5 537
Purchases	-44 389	-52 696
Net purchases/sales/maturities of short-term investments	-3 675	6 459
Equity securities:		
Sales	3 283	7 421
Purchases	-1 702	-7 113
Securities purchased/sold under agreement to resell/repurchase, net	789	-1 042
Cash paid/received for acquisitions/disposals and reinsurance transactions, net	318	36
Net purchases/sales/maturities of other investments	1 293	-2 103
Net purchases/sales/maturities of investments held for unit-linked and with-profit business	2 762	2 356
Net cash provided/used by investing activities	1 597	2 759
Cash flows from financing activities		
Policyholder account balances, unit-linked and with-profit business:		
Deposits	658	565
Withdrawals	-3 755	-2 821
Issuance/repayment of long-term debt	762	-270
Issuance/repayment of short-term debt	-1 331	-1 221
Issuance/repayment of contingent capital instrument	0	-352
Purchase/sale of treasury shares	-1 170	-1 142
Dividends paid to shareholders	-1 561	-1 559
Net cash provided/used by financing activities	-6 397	-6 800



USD millions	2016	2017
Total net cash provided/used	1 315	-2 738
Effect of foreign currency translation	-508	533
Change in cash and cash equivalents	807	-2 205
Cash and cash equivalents as of 1 January	8 204	9 011
Cash and cash equivalents as of 31 December	9 011	6 806

Interest paid was USD 674 million and USD 655 million (thereof USD 51 million and USD 49 million for letter of credit fees) for 2016 and 2017, respectively. Tax paid was USD 755 million and USD 720 million for 2016 and 2017, respectively.

The accompanying notes are an integral part of the Group financial statements.

Notes to the Group financial statements

1 Organisation and summary of significant accounting policies

Nature of operations

The Swiss Re Group, which is headquartered in Zurich, Switzerland, comprises Swiss Re Ltd (the parent company) and its subsidiaries (collectively, the "Swiss Re Group" or the "Group"). The Swiss Re Group is a wholesale provider of reinsurance, insurance and other insurance-based forms of risk transfer. Working through brokers and a network of offices around the globe, the Group serves a client base made up of insurance companies, mid-to-large-sized corporations and public-sector clients.

Basis of presentation

The accompanying condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (US GAAP). All significant intra-group transactions and balances have been eliminated on consolidation. The accompanying condensed consolidated financial statements contain preliminary, unaudited financial information for the annual period ended 31 December 2017. The 2016 year-end balance sheet data presented was derived from audited financial statements. These condensed financial statements do not include all disclosures that US GAAP requires on an annual basis and therefore they should be read in conjunction with the Swiss Re Group's audited consolidated financial statements for the year ended 31 December 2016. The Swiss Re Group's audited consolidated financial statements for the year ended 31 December 2017 will be published on 15 March 2018.

Use of estimates in the preparation of financial statements

The preparation of financial statements requires management to make significant estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses as well as the related disclosure, including contingent assets and liabilities. The Swiss Re Group's liabilities for unpaid claims and claim adjustment expenses and policy benefits for life and health include estimates for premium, claim and benefit data not received from ceding companies at the date of the financial statements. In addition, the Group uses certain financial instruments and invests in securities of certain entities for which exchange trading does not exist. The Group determines these estimates based on historical information, actuarial analyses, financial modelling and other analytical techniques. Actual results could differ significantly from the estimates described above.

Valuation of financial assets

The fair value of the majority of the Group's financial instruments is based on quoted prices in active markets or observable inputs. These instruments include government and agency securities, commercial paper, most investment-grade corporate debt, most high-yield debt securities, exchange-traded derivative instruments, most mortgage- and asset-backed securities and listed equity securities. In markets with reduced or no liquidity, spreads between bid and offer prices are normally wider compared to spreads in highly liquid markets. Such market conditions affect the valuation of certain asset classes of the Group, such as some asset-backed securities as well as certain derivative structures referencing such asset classes.

The Group considers both the credit risk of its counterparties and own risk of non-performance in the valuation of derivative instruments and other over-the-counter financial assets. In determining the fair value of these financial instruments, the assessment of the Group's exposure to the credit risk of its counterparties incorporates consideration of existing collateral and netting arrangements entered into with each counterparty. The measure of the counterparty credit risk is estimated with incorporation of the observable credit spreads, where available, or credit spread estimates derived based on the benchmarking techniques where market data is not available. The impact of the Group's own risk of non-performance is analysed in the manner consistent with the aforementioned approach, with consideration of the Group's observable credit spreads. The value representing such risk is incorporated into the fair value of the financial instruments (primarily derivatives), in a liability position as of the measurement date. The change in this adjustment from period to period is reflected in realised gains and losses in the income statement.

For assets or derivative structures at fair value, the Group uses market prices or inputs derived from market prices. A separate internal price verification process, independent of the trading function, provides an additional control over the market prices or market input used to determine the fair values of such assets. Although management considers that appropriate values have been

Financial statements

Notes to the Group financial statements

ascribed to such assets, there is always a level of uncertainty and judgement over these valuations. Subsequent valuations could differ significantly from the results of the process described above. The Group may become aware of counterparty valuations, either directly through the exchange of information or indirectly, for example, through collateral demands. Any implied differences are considered in the independent price verification process and may result in adjustments to initially indicated valuations. As of 31 December 2017, the Group has not provided any collateral on financial instruments in excess of its own market value estimates.

Subsequent events

Subsequent events for the current reporting period have been evaluated up to 22 February 2018. This is the date on which the condensed unaudited financial statements are available to be issued.

Recent accounting guidance

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2014-09, "Revenue from Contracts with Customers", which creates topic 606, "Revenue from Contracts with Customers". ASU 2014-09 outlines the principles that an entity should follow to provide useful information about the amount, timing and uncertainty of revenue and cash flows arising from contracts with its customers. The standard requires an entity to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Insurance contracts and financial instruments are not in the scope of the new standard. The Group will adopt ASU 2014-09 on 1 January 2018. It is expected that the adoption will not have a material impact on the Group's financial statements.

In January 2016, the FASB issued ASU 2016-01, "Recognition and Measurement of Financial Assets and Financial Liabilities", an update to subtopic 825-10, "Financial Instruments – Overall". The ASU requires an entity to carry investments in equity securities, including partnerships, unincorporated joint ventures and limited liability companies at fair value through net income, with the exception of equity method investments, investments that result in consolidation or investments for which the entity has elected the measurement alternative. For financial liabilities to which the fair value option has been applied, the ASU also requires an entity to separately present the change in fair value attributable to instrument-specific credit risk in other comprehensive income rather than in net income. In addition, the ASU requires an entity to assess whether a valuation allowance is needed on a deferred tax asset (DTA) related to fixed income securities available-for-sale in combination with the entity's other DTAs rather than separately from other DTAs. The Group will adopt ASU 2016-01 on 1 January 2018. The expected main impact from the adoption is a reclassification within shareholders' equity from net unrealised gains, net of tax, to retained earnings of USD 0.3 billion.

In February 2016, the FASB issued ASU 2016-02, "Leases", which creates topic 842, "Leases". The core principle of topic 842 is that a lessee should recognise the assets and liabilities that arise from leases. A lessee should recognise in the statement of financial position a liability to make lease payments (the lease liability) and a right-of-use asset representing the right to use the underlying asset for the lease term. This accounting treatment applies to finance leases and operating leases. The accounting applied by a lessor is largely unchanged from that applied under the current guidance. The new requirements are effective for annual and interim periods beginning after 15 December 2018. Early application of the ASU is permitted. The Group is currently assessing the impact of the new requirements.

In March 2016, the FASB issued ASU 2016-05, "Effect of Derivative Contract Novations on Existing Hedge Accounting Relationships", an update to topic 815, "Derivatives and Hedging". The amendments in this ASU clarify that a change in the counterparty to a derivative instrument that has been designated as the hedging instrument under topic 815 does not require dedesignation of that hedging relationship provided that all other hedge accounting criteria continue to be met. The Group adopted ASU 2016-05 on 1 January 2017. The adoption did not have an impact on the Group's financial statements.

In March 2016, the FASB issued ASU 2016-06, "Contingent Put and Call Options in Debt Instruments", an update to topic 815, "Derivatives and Hedging". This ASU clarifies the requirements for assessing whether contingent call or put options that can accelerate the payment of principal on debt instruments are clearly and closely related to their debt hosts. An entity performing the assessment under the amendments in this update is required to assess the embedded call or put options solely in accordance with the four-step decision sequence as defined in the implementation guidance issued by the Derivatives Implementation Group (DIG). The Group adopted ASU 2016-06 on 1 January 2017. The adoption did not have an impact on the Group's financial statements.

In March 2016, the FASB issued ASU 2016-07, "Simplifying the Transition to the Equity Method of Accounting", an update to topic 323, "Investments – Equity Method and Joint Ventures". The amendments in this update eliminate the requirement to retroactively adopt the equity method of accounting when an investment qualifies for use of the equity method as a result of an increase in the level of ownership interest or degree of influence. Instead, the amendments require that the equity method investor adds the cost of acquiring the additional interest in the investee to the current basis of the investor's previously held interest and adopts the equity method of accounting as of the date the investment qualifies for equity method accounting. The Group adopted ASU 2016-07 on 1 January 2017. The adoption did not have an impact on the Group's financial statements.

In March 2016, the FASB issued ASU 2016-09, "Improvements to Employee Share-Based Payment Accounting", an update to topic 718, "Compensation – Stock Compensation". This ASU is part of the Board's Simplification Initiative and the areas for

Financial statements

Notes to the Group financial statements

simplification in this update involve several aspects of accounting for share-based payment transactions, including income tax consequences, classification of awards as either equity or liabilities and classification on the statement of cash flows. The Group adopted ASU 2016-09 on 1 January 2017. The adoption did not have a material effect on the Group's financial statements.

In June 2016, the FASB issued ASU 2016-13, "Measurement of Credit Losses", an update to topic 326, "Financial Instruments – Credit Losses". ASU 2016-13 replaces the incurred loss impairment methodology in current US GAAP with a methodology that reflects expected credit losses. For financial instruments that are measured at amortised cost and available-for-sale debt securities, the standard requires that an entity recognises its estimate of expected credit losses as an allowance. The ASU is effective for annual and interim periods beginning after 15 December 2020. Early adoption for interim and annual periods after 15 December 2018 is permitted. The Group is currently assessing the impact of the new requirements.

In October 2016, the FASB issued ASU 2016-16, "Intra-Entity Transfers of Assets Other Than Inventory", an update to topic 740, "Income Taxes". This ASU amends the current guidance which prohibits the recognition of current and deferred income taxes for an intra-entity asset transfer until the asset has been sold to an outside party. This new standard requires that an entity recognises the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. The Group will adopt ASU 2016-16 on 1 January 2018. It is expected that the adoption will not have a material impact on the Group's equity.

In October 2016, the FASB issued ASU 2016-17, "Interests Held through Related Parties That Are under Common Control", an update to topic 810, "Consolidation". This ASU amends the consolidation guidance on how a reporting entity that is the single decision maker of a variable interest entity (VIE) should treat indirect interests in the entity held through related parties that are under common control with the reporting entity when determining whether it is the primary beneficiary of that VIE. Under the amendments, a single decision maker is not required to consider indirect interests held through related parties that are under common control with the single decision maker to be the equivalent of direct interests in their entirety. Instead, a single decision maker is required to include those interests on a proportionate basis consistent with indirect interests held through other related parties. The Group adopted ASU 2016-17 on 1 January 2017. The adoption did not have an impact on the Group's financial statements.

In January 2017, the FASB issued ASU 2017-01, "Clarifying the Definition of a Business", an update to topic 805, "Business Combinations". The amendments in this update clarify the definition of a business in order to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The amendments stipulate that when substantially all of the fair value of an integrated set of assets and activities ("set") acquired (or disposed of) is concentrated in a single identifiable asset or a group of similar identifiable assets, the set is not a business. The Group early adopted ASU 2017-01 on 1 July 2017. The adoption did not have an impact on the Group's financial statements.

In January 2017, the FASB issued ASU 2017-04, "Simplifying the Test for Goodwill Impairment", an update to topic 350, "Intangibles – Goodwill and Other". This ASU simplifies the subsequent measurement of goodwill and eliminates Step 2 from the goodwill impairment test. In computing the implied fair value of goodwill under Step 2, an entity has to perform procedures to determine the fair value at the impairment testing date of its assets and liabilities (including unrecognised assets and liabilities) following the procedure that would be required in determining the fair value of assets acquired and liabilities assumed in a business combination. Instead, under the amendments in this update, an entity should perform its regular goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An entity should recognise an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognised should not exceed the total amount of goodwill allocated to that reporting unit. The new requirements are effective for goodwill impairment tests in annual and interim periods beginning after 15 December 2020. Early application of the ASU is permitted. The Group is currently assessing the impact of the new requirements.

2 Information on business segments

The Group provides reinsurance and insurance throughout the world through its business segments. The business segments are determined by the organisational structure and by the way in which management reviews the operating performance of the Group.

The Group presents four core operating business segments: Property & Casualty Reinsurance, Life & Health Reinsurance, Corporate Solutions and Life Capital. The presentation of each segment's balance sheet is closely aligned to the segment legal entity structure. The assignment of assets and liabilities for entities that span more than one segment is determined by considering local statutory requirements, legal and other constraints, the economic view of duration and currency requirements of the reinsurance business written and the capacity of the segments to absorb risks. Interest expense is based on the segment's capital funding position. The tax impact of a segment is derived from the legal entity tax obligations and the segmentation of the pre-tax result. While most of the tax items can be directly attributed to individual segments, the tax which impacts two or more segments is allocated to the segments on a reasonable basis. Property & Casualty Reinsurance and Life & Health Reinsurance share the same year-to-date effective tax rate as both business segments belong to the Reinsurance Business Unit.

Accounting policies applied by the business segments are in line with those described in the summary of significant accounting policies (please refer to Note 1).

The Group operating segments are outlined below.

Property & Casualty Reinsurance and Life & Health Reinsurance

Reinsurance consists of two segments, Property & Casualty and Life & Health. The Reinsurance Business Unit operates globally, both through brokers and directly with clients, and provides a large range of solutions for risk and capital management. Clients include stock and mutual insurance companies as well as public sector and governmental entities. In addition to traditional reinsurance solutions, Reinsurance offers insurance-linked securities and other insurance-related capital market products in both Property & Casualty and Life & Health.

Property & Casualty includes the business lines property, casualty (including motor) and specialty. Life & Health includes the life and health lines of business.

Corporate Solutions

Corporate Solutions offers innovative insurance capacity to mid-sized and large multinational corporations across the globe. Offerings range from standard risk transfer covers and multi-line programmes to customised solutions tailored to the needs of clients. Corporate Solutions serves customers from over 50 offices worldwide.

Life Capital

Life Capital manages Swiss Re's primary life and health business. It encompasses the closed and open life and health insurance books, including the ReAssure business and the primary life and health insurance business comprising elipsLife and iptiQ. Through ReAssure, Swiss Re acquires closed blocks of inforce life and health insurance business, either through reinsurance or corporate acquisition, and typically assumes responsibility for administering the underlying policies. The administration of the business may be managed directly or, where appropriate, in partnership with a third party. In the open books business, elipsLife, the Group life and health insurance business, offers solutions to pension funds, corporates and affinity groups through an intermediated business to business ("B2B") model. The iptiQ business, primarily the individual life and health business, partners with distributors and enables individuals to address their protection needs on a white labelled basis.

Group items

Items not allocated to the business segments are included in the "Group items" column, which encompasses Swiss Re Ltd, the Group's ultimate parent company, the former Legacy business in run-off, Principal Investments and certain Treasury units. Swiss Re Ltd charges trademark licence fees to the business segments which are reported as other revenues. Certain administrative expenses of the corporate centre functions that are not recharged to the operating segments are reported as Group items.

Consolidation

Segment information is presented net of external and internal retrocession and other intra-group arrangements. The Group total is obtained after elimination of intra-group transactions in the "Consolidation" column. This includes significant intra-group reinsurance arrangements, recharge of trademark licence fees and intersegmental funding.

Financial statements

Notes to the Group financial statements

a) Business segments – income statement

For the year ended 31 December

2016 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Group items	Consolidation	Total
Revenues							
Gross premiums written	18 149	12 801	4 155	1 489		-972	35 622
Net premiums written	17 768	11 459	3 662	681			33 570
Change in unearned premiums	-760	27	-159	13			-879
Premiums earned	17 008	11 486	3 503	694			32 691
Fee income from policyholders		41		499			540
Net investment income – non-participating business	985	1 279	138	1 256	101	-98	3 661
Net realised investment gains/losses – non-participating business	770	232	51	503	-72		1 484
Net investment result – unit-linked and with-profit business		15		5 367			5 382
Other revenues	37	5	5	1	346	-366	28
Total revenues	18 800	13 058	3 697	8 320	375	-464	43 786
Expenses							
Claims and claim adjustment expenses	-10 301		-2 263				-12 564
Life and health benefits		-8 963		-1 896			-10 859
Return credited to policyholders		-39		-5 060			-5 099
Acquisition costs	-4 405	-1 943	-517	-63			-6 928
Operating expenses	-1 204	-763	-760	-503	-473	345	-3 358
Total expenses before interest expenses	-15 910	-11 708	-3 540	-7 522	-473	345	-38 808
Income/loss before interest and income tax expense/benefit							
	2 890	1 350	157	798	-98	-119	4 978
Interest expenses	-293	-301	-23	-29	-79	119	-606
Income/loss before income tax expense/benefit	2 597	1 049	134	769	-177	0	4 372
Income tax expense/benefit	-479	-193	-1	-131	55		-749
Net income/loss before attribution of non-controlling interests	2 118	856	133	638	-122	0	3 623
Income/loss attributable to non-controlling interests	1		2				3
Net income/loss after attribution of non-controlling interests	2 119	856	135	638	-122	0	3 626
Interest on contingent capital instruments, net of tax	-19	-49					-68
Net income/loss attributable to common shareholders	2 100	807	135	638	-122	0	3 558
Claims ratio in %	60.5		64.6				61.2
Expense ratio in %	33.0		36.5				33.6
Combined ratio in %	93.5		101.1				94.8
Management expense ratio in %		6.0					
Net operating margin in %	15.4	10.4	4.2	27.0	-26.1		13.0

Business segments – income statement

For the year ended 31 December

2017 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Group items	Consolidation	Total
Revenues							
Gross premiums written	16 544	13 313	4 193	1 761		-1 036	34 775
Net premiums written	16 031	11 826	3 600	859			32 316
Change in unearned premiums	636	25	51	91			803
Premiums earned	16 667	11 851	3 651	950			33 119
Fee income from policyholders		129		457			586
Net investment income – non-participating business	1 017	1 308	161	1 193	184	-155	3 708
Net realised investment gains – non-participating business	613	591	128	133	262		1 727
Net investment result – unit-linked and with-profit business		81		3 234			3 315
Other revenues	48	3	5	2	359	-385	32
Total revenues	18 345	13 963	3 945	5 969	805	-540	42 487
Expenses							
Claims and claim adjustment expenses	-13 172		-3 558				-16 730
Life and health benefits		-9 211		-1 872			-11 083
Return credited to policyholders		-119		-3 179			-3 298
Acquisition costs	-4 253	-2 064	-554	-106			-6 977
Operating expenses	-1 159	-754	-759	-514	-474	352	-3 308
Total expenses before interest expenses	-18 584	-12 148	-4 871	-5 671	-474	352	-41 396
Income/loss before interest and income tax expense/benefit							
	-239	1 815	-926	298	331	-188	1 091
Interest expenses	-280	-315	-23	-35	-101	188	-566
Income/loss before income tax expense/benefit	-519	1 500	-949	263	230	0	525
Income tax expense/benefit	125	-360	203	-102	2		-132
Net income/loss before attribution of non-controlling interests	-394	1 140	-746	161	232	0	393
Income/loss attributable to non-controlling interests			5				5
Net income/loss after attribution of non-controlling interests	-394	1 140	-741	161	232	0	398
Interest on contingent capital instruments, net of tax	-19	-48					-67
Net income/loss attributable to common shareholders	-413	1 092	-741	161	232	0	331
Claims ratio in %	79.0		97.4				82.3
Expense ratio in %	32.5		36.0				33.1
Combined ratio in %	111.5		133.4				115.4
Management expense ratio in %		5.7					
Net operating margin in %	-1.3	13.1	-23.5	10.9	41.1		2.8

Financial statements

Notes to the Group financial statements

Business segments – balance sheet

As of 31 December

2016 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Group items	Consolidation	Total
Assets							
Fixed income securities	31 574	29 980	6 361	25 350	11		93 276
Equity securities	1 292	867	539		737		3 435
Other investments	11 962	3 355	141	2 421	4 785	-7 446	15 218
Short-term investments	4 672	2 558	1 272	1 456	951		10 909
Investments for unit-linked and with-profit business		548		31 630			32 178
Cash and cash equivalents	4 922	410	472	2 636	571		9 011
Deferred acquisition costs	2 280	3 465	444	11			6 200
Acquired present value of future profits		966		1 037			2 003
Reinsurance recoverable	2 449	1 580	5 698	2 210		-4 476	7 461
Other reinsurance assets	9 620	6 369	2 616	3 949	4	-1 104	21 454
Goodwill	1 852	1 810	173	130			3 965
Other	8 640	4 049	1 279	1 470	1 181	-6 664	9 955
Total assets	79 263	55 957	18 995	72 300	8 240	-19 690	215 065
Liabilities							
Unpaid claims and claim adjustment expenses	39 753	10 288	10 271	1 498		-4 455	57 355
Liabilities for life and health policy benefits		15 431	268	25 499		-22	41 176
Policyholder account balances		1 566		32 788			34 354
Other reinsurance liabilities	10 816	1 709	4 310	684	2	-1 435	16 086
Short-term debt	1 202	5 221		80	431	-5 370	1 564
Long-term debt	3 307	5 074	497	1 465	80	-636	9 787
Other	11 124	9 106	1 370	3 014	2 183	-7 770	19 027
Total liabilities	66 202	48 395	16 716	65 028	2 696	-19 688	179 349
Shareholders' equity	13 040	7 562	2 218	7 272	5 544	-2	35 634
Non-controlling interests	21		61				82
Total equity	13 061	7 562	2 279	7 272	5 544	-2	35 716
Total liabilities and equity	79 263	55 957	18 995	72 300	8 240	-19 690	215 065

Business segments – balance sheet

As of 31 December

2017 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Group items	Consolidation	Total
Assets							
Fixed income securities	34 189	32 642	8 356	26 528	71		101 786
Equity securities	1 893	945	455	32	540		3 865
Other investments	14 460	3 212	191	2 697	5 530	-9 856	16 234
Short-term investments	1 608	996	482	1 711	49		4 846
Investments for unit-linked and with-profit business		585		34 581			35 166
Cash and cash equivalents	1 334	1 595	654	2 959	264		6 806
Deferred acquisition costs	2 146	4 234	454	37			6 871
Acquired present value of future profits		921		1 068			1 989
Reinsurance recoverable	2 541	4 638	5 737	5 200		-10 174	7 942
Other reinsurance assets	10 293	10 669	2 477	7 666	2	-8 118	22 989
Goodwill	1 944	1 873	213	142			4 172
Other	10 067	2 249	1 717	2 100	1 819	-8 092	9 860
Total assets	80 475	64 559	20 736	84 721	8 275	-36 240	222 526
Liabilities							
Unpaid claims and claim adjustment expenses	45 276	12 129	11 818	2 308		-4 736	66 795
Liabilities for life and health policy benefits		18 230	279	29 491		-5 439	42 561
Policyholder account balances		1 574		35 963			37 537
Other reinsurance liabilities	10 245	5 528	4 177	4 410	2	-8 448	15 914
Short-term debt	807	4 766		904	60	-6 104	433
Long-term debt	3 500	6 914	497	1 603		-2 366	10 148
Other	9 891	7 197	1 411	2 954	2 538	-9 147	14 844
Total liabilities	69 719	56 338	18 182	77 633	2 600	-36 240	188 232
Shareholders' equity							
Shareholders' equity	10 755	8 221	2 385	7 088	5 675	0	34 124
Non-controlling interests	1		169				170
Total equity	10 756	8 221	2 554	7 088	5 675	0	34 294
Total liabilities and equity	80 475	64 559	20 736	84 721	8 275	-36 240	222 526

Financial statements

Notes to the Group financial statements

b) Property & Casualty Reinsurance business segment – by line of business

For the year ended 31 December

2016 USD millions	Property	Casualty	Specialty	Unallocated	Total
Revenues					
Gross premiums written	6 794	8 874	2 481		18 149
Net premiums written	6 499	8 833	2 436		17 768
Change in unearned premiums	153	-830	-83		-760
Premiums earned	6 652	8 003	2 353		17 008
Net investment income				985	985
Net realised investment gains/losses				770	770
Other revenues				37	37
Total revenues	6 652	8 003	2 353	1 792	18 800
Expenses					
Claims and claim adjustment expenses	-3 745	-5 466	-1 090		-10 301
Acquisition costs	-1 351	-2 468	-586		-4 405
Operating expenses	-665	-385	-154		-1 204
Total expenses before interest expenses	-5 761	-8 319	-1 830	0	-15 910
Income/loss before interest and income tax expense	891	-316	523	1 792	2 890
Interest expenses				-293	-293
Income/loss before income tax expense	891	-316	523	1 499	2 597
Claims ratio in %	56.3	68.3	46.4		60.5
Expense ratio in %	30.3	35.6	31.4		33.0
Combined ratio in %	86.6	103.9	77.8		93.5

Property & Casualty Reinsurance business segment – by line of business

For the year ended 31 December

2017 USD millions	Property	Casualty	Specialty	Unallocated	Total
Revenues					
Gross premiums written	6 505	7 715	2 324		16 544
Net premiums written	6 115	7 665	2 251		16 031
Change in unearned premiums	140	435	61		636
Premiums earned	6 255	8 100	2 312		16 667
Net investment income				1 017	1 017
Net realised investment gains/losses				613	613
Other revenues				48	48
Total revenues	6 255	8 100	2 312	1 678	18 345
Expenses					
Claims and claim adjustment expenses	-5 635	-6 041	-1 496		-13 172
Acquisition costs	-1 228	-2 414	-611		-4 253
Operating expenses	-636	-356	-167		-1 159
Total expenses before interest expenses	-7 499	-8 811	-2 274	0	-18 584
Income/loss before interest and income tax expense	-1 244	-711	38	1 678	-239
Interest expenses				-280	-280
Income/loss before income tax expense	-1 244	-711	38	1 398	-519
Claims ratio in %	90.1	74.6	64.7		79.0
Expense ratio in %	29.8	34.2	33.7		32.5
Combined ratio in %	119.9	108.8	98.4		111.5

Financial statements

Notes to the Group financial statements

c) Life & Health Reinsurance business segment – by line of business

For the year ended 31 December

2016 USD millions	Life	Health	Unallocated	Total
Revenues				
Gross premiums written	9 026	3 775		12 801
Net premiums written	7 773	3 686		11 459
Change in unearned premiums	5	22		27
Premiums earned	7 778	3 708		11 486
Fee income from policyholders	41			41
Net investment income – non-participating business ¹	912	367		1 279
Net realised investment gains/losses – non-participating business	21	-4	215	232
Net investment result – unit-linked and with-profit business	15			15
Other revenues	5			5
Total revenues	8 772	4 071	215	13 058
Expenses				
Life and health benefits	-6 093	-2 870		-8 963
Return credited to policyholders	-39			-39
Acquisition costs	-1 237	-706		-1 943
Operating expenses	-536	-227		-763
Total expenses before interest expenses	-7 905	-3 803	0	-11 708
Income before interest and income tax expense	867	268	215	1 350
Interest expenses			-301	-301
Income/loss before income tax expense	867	268	-86	1 049
Management expense ratio in %	6.1	5.6		6.0
Net operating margin ² in %	9.9	6.6		10.4

¹ The Group revised the methodology for allocating investment return to lines of business. Comparative information for 2016 has been adjusted accordingly.

² Net operating margin is calculated as "Income before interest and income tax expense" divided by "Total revenues" excluding "Net investment result – unit-linked and with-profit business".

Life & Health Reinsurance business segment – by line of business

For the year ended 31 December

2017 USD millions	Life	Health	Unallocated	Total
Revenues				
Gross premiums written	9 525	3 788		13 313
Net premiums written	8 138	3 688		11 826
Change in unearned premiums	79	-54		25
Premiums earned	8 217	3 634		11 851
Fee income from policyholders	129			129
Net investment income – non-participating business	1 023	285		1 308
Net realised investment gains/losses – non-participating business	57	-1	535	591
Net investment result – unit-linked and with-profit business	81			81
Other revenues	3			3
Total revenues	9 510	3 918	535	13 963
Expenses				
Life and health benefits	-6 491	-2 720		-9 211
Return credited to policyholders	-119			-119
Acquisition costs	-1 432	-632		-2 064
Operating expenses	-533	-221		-754
Total expenses before interest expenses	-8 575	-3 573	0	-12 148
Income before interest and income tax expense	935	345	535	1 815
Interest expenses			-315	-315
Income before income tax expense	935	345	220	1 500
Management expense ratio in %	5.7	5.6		5.7
Net operating margin ¹ in %	9.9	8.8		13.1

¹ Net operating margin is calculated as "Income before interest and income tax expense" divided by "Total revenues" excluding "Net investment result – unit-linked and with-profit business".

Financial statements

Notes to the Group financial statements

d) Net premiums earned and fee income from policyholders by geography

Net premiums earned and fee income from policyholders by regions for the years ended 31 December

USD millions	2016	2017
Americas	15 102	16 101
Europe (including Middle East and Africa)	10 928	10 546
Asia-Pacific	7 201	7 058
Total	33 231	33 705

Net premiums earned and fee income from policyholders by country for the years ended 31 December

USD millions	2016	2017
United States	12 401	13 509
United Kingdom	3 759	3 382
Australia	1 919	2 095
China	2 425	1 933
Germany	1 200	1 258
Japan	1 105	1 168
Canada	1 107	1 137
Switzerland	902	886
France	733	730
Ireland	754	673
Spain	472	524
Other	6 454	6 410
Total	33 231	33 705

Net premiums earned and fee income from policyholders are allocated by country, based on the underlying contract.

3 Insurance information

Premiums earned and fees assessed against policyholders

For the year ended 31 December

2016 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Total
Premiums earned, thereof:					
Direct		45	2 879	1 293	4 217
Reinsurance	17 166	12 204	968	173	30 511
Intra-group transactions (assumed and ceded)	113	594	-113	-594	0
Premiums earned before retrocession to external parties					
	17 279	12 843	3 734	872	34 728
Retrocession to external parties	-271	-1 357	-231	-178	-2 037
Net premiums earned	17 008	11 486	3 503	694	32 691
Fee income from policyholders, thereof:					
Direct				410	410
Reinsurance		40		89	129
Gross fee income before retrocession to external parties					
		40		499	539
Retrocession to external parties		1			1
Net fee income	0	41	0	499	540

2017 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Total
Premiums earned, thereof:					
Direct		55	3 229	1 465	4 749
Reinsurance	16 901	12 829	862	128	30 720
Intra-group transactions (assumed and ceded)	137	315	-137	-315	0
Premiums earned before retrocession to external parties					
	17 038	13 199	3 954	1 278	35 469
Retrocession to external parties	-371	-1 348	-303	-328	-2 350
Net premiums earned	16 667	11 851	3 651	950	33 119
Fee income from policyholders, thereof:					
Direct				362	362
Reinsurance		130		95	225
Gross fee income before retrocession to external parties					
		130		457	587
Retrocession to external parties		-1			-1
Net fee income	0	129	0	457	586

Financial statements

Notes to the Group financial statements

Claims and claim adjustment expenses

For the year ended 31 December

2016 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Total
Claims paid, thereof:					
Gross claims paid to external parties	-8 546	-10 032	-2 563	-3 384	-24 525
Intra-group transactions (assumed and ceded)	-502	-477	502	477	0
Claims before receivables from retrocession to external parties					
Retrocession to external parties	342	1 205	223	227	1 997
Net claims paid	-8 706	-9 304	-1 838	-2 680	-22 528
Change in unpaid claims and claim adjustment expenses; life and health benefits, thereof:					
Gross – with external parties	-2 014	392	257	833	-532
Intra-group transactions (assumed and ceded)	702	-34	-702	34	0
Unpaid claims and claim adjustment expenses; life and health benefits before impact of retrocession to external parties					
Retrocession to external parties	-283	-17	20	-83	-363
Net unpaid claims and claim adjustment expenses; life and health benefits	-1 595	341	-425	784	-895
Claims and claim adjustment expenses; life and health benefits	-10 301	-8 963	-2 263	-1 896	-23 423

Acquisition costs

For the year ended 31 December

2016 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Total
Acquisition costs, thereof:					
Gross acquisition costs with external parties	-4 458	-2 094	-589	-137	-7 278
Intra-group transactions (assumed and ceded)	-16	-59	16	59	0
Acquisition costs before impact of retrocession to external parties					
Retrocession to external parties	69	210	56	15	350
Net acquisition costs	-4 405	-1 943	-517	-63	-6 928

Claims and claim adjustment expenses

For the year ended 31 December

2017 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Total
Claims paid, thereof:					
Gross claims paid to external parties	-9 866	-9 505	-2 571	-3 170	-25 112
Intra-group transactions (assumed and ceded)	-177	-226	177	226	0
Claims before receivables from retrocession to external parties	-10 043	-9 731	-2 394	-2 944	-25 112
Retrocession to external parties	279	1 162	192	357	1 990
Net claims paid	-9 764	-8 569	-2 202	-2 587	-23 122
Change in unpaid claims and claim adjustment expenses; life and health benefits, thereof:					
Gross – with external parties	-3 791	-533	-1 016	727	-4 613
Intra-group transactions (assumed and ceded)	365	-53	-365	53	0
Unpaid claims and claim adjustment expenses; life and health benefits before impact of retrocession to external parties	-3 426	-586	-1 381	780	-4 613
Retrocession to external parties	18	-56	25	-65	-78
Net unpaid claims and claim adjustment expenses; life and health benefits	-3 408	-642	-1 356	715	-4 691
Claims and claim adjustment expenses; life and health benefits	-13 172	-9 211	-3 558	-1 872	-27 813

Acquisition costs

For the year ended 31 December

2017 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Total
Acquisition costs, thereof:					
Gross acquisition costs with external parties	-4 297	-2 277	-621	-155	-7 350
Intra-group transactions (assumed and ceded)	-19	-12	19	12	0
Acquisition costs before impact of retrocession to external parties	-4 316	-2 289	-602	-143	-7 350
Retrocession to external parties	63	225	48	37	373
Net acquisition costs	-4 253	-2 064	-554	-106	-6 977

Financial statements

Notes to the Group financial statements

Reinsurance recoverable on unpaid claims and policy benefits

As of 31 December 2016 and 2017, the Group had a reinsurance recoverable of USD 7 461 million and USD 7 942 million, respectively. The concentration of credit risk is regularly monitored and evaluated. The reinsurance programme with Berkshire Hathaway and subsidiaries accounted for 40% and 34% of the Group's reinsurance recoverable as of year-end 2016 and 2017, respectively.

Reinsurance receivables

Reinsurance receivables as of 31 December were as follows:

USD millions	2016	2017
Premium receivables invoiced	1 717	3 135
Receivables invoiced from ceded re/insurance business	177	427
Assets arising from the application of the deposit method of accounting and meeting the definition of financing receivables	141	147
Recognised allowance	-60	-71

Policyholder dividends

Policyholder dividends are recognised as an element of policyholder benefits. The relative percentage of participating insurance of the life and health policy benefits in 2016 and 2017 was 10% and 10%, respectively. The amount of policyholder dividend expense in 2016 and 2017 was USD 279 million and USD 146 million, respectively.

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4 Premiums written

For the years ended 31 December

2016 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Consolidation	Total
Gross premiums written, thereof:						
Direct		45	3 056	1 317		4 418
Reinsurance	17 862	12 210	960	172		31 204
Intra-group transactions (assumed)	287	546	139		-972	0
Gross premiums written	18 149	12 801	4 155	1 489	-972	35 622
Intra-group transactions (ceded)	-139		-287	-546	972	0
Gross premiums written before retrocession to external parties	18 010	12 801	3 868	943		35 622
Retrocession to external parties	-242	-1 342	-206	-262		-2 052
Net premiums written	17 768	11 459	3 662	681	0	33 570

2017 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Consolidation	Total
Gross premiums written, thereof:						
Direct		55	3 279	1 489		4 823
Reinsurance	16 290	12 732	802	128		29 952
Intra-group transactions (assumed)	254	526	112	144	-1 036	0
Gross premiums written	16 544	13 313	4 193	1 761	-1 036	34 775
Intra-group transactions (ceded)	-112	-144	-254	-526	1 036	0
Gross premiums written before retrocession to external parties	16 432	13 169	3 939	1 235		34 775
Retrocession to external parties	-401	-1 343	-339	-376		-2 459
Net premiums written	16 031	11 826	3 600	859	0	32 316

5 Unpaid claims and claim adjustment expenses

A reconciliation of the opening and closing reserve balances for unpaid claims and claim adjustment expenses for the years ended 31 December is presented as follows:

USD millions	2016	2017
Balance as of 1 January	55 518	57 355
Reinsurance recoverable	-4 265	-4 044
Deferred expense on retroactive reinsurance	-340	-211
Net balance as of 1 January	50 913	53 100
Incurring related to:		
Current year	25 825	28 923
Prior year	-810	-630
Amortisation of deferred expense on retroactive reinsurance and impact of commutations	-26	-5
Total incurred	24 989	28 288
Paid related to:		
Current year	-9 720	-8 859
Prior year	-12 808	-14 263
Total paid	-22 528	-23 122
Foreign exchange	-1 317	2 653
Effect of acquisitions, disposals, new retroactive reinsurance and other items	1 043	1 178
Net balance as of period end	53 100	62 097
Reinsurance recoverable	4 044	4 458
Deferred expense on retroactive reinsurance	211	240
Balance as of period end	57 355	66 795

Financial statements

Notes to the Group financial statements

Prior-year development

Non-life claims development during 2017 on prior years continued to be driven by favourable experience on most lines of business. Property was mainly driven by positive claims development across the most recent accident years. Casualty includes adverse development on motor. Within specialty, the main reserve releases came from marine and engineering business lines, partially offset with adverse credit and surety experience.

For life and health lines of business, claims development on prior-year business was driven by adverse claim experience across a number of lines of business and geographies. In particular, the UK critical illness and US life portfolios strengthened reserves following adverse trends. This was partially offset by positive experience in Continental Europe, in particular in German disability and life portfolios. Claims development related to prior years also includes an element of interest accretion for unpaid claims reported at the estimated present value.

A summary of prior-year net claims and claim adjustment expenses development by lines of business for the years ended 31 December is shown below:

USD millions	2016	2017
Line of business:		
Property	-335	-555
Casualty	-249	-67
Specialty	-357	-178
Life and health	131	170
Total	-810	-630

US asbestos and environmental claims exposure

The Group's obligation for claims payments and claims settlement charges also includes obligations for long-latent injury claims arising out of policies written prior to 1986, in particular in the area of US asbestos and environmental liability.

At the end of 2017, the Group carried net reserves for US asbestos and environmental liabilities equal to USD 1 830 million. During 2017, the Group incurred net losses of USD 45 million and paid net against these liabilities of USD 192 million.

Estimating ultimate asbestos and environmental liabilities is particularly complex for a number of reasons, relating in part to the long period between exposure and manifestation of claims and in part to other factors, which include risks and lack of predictability inherent in complex litigation, changes in projected costs to resolve and in the projected number of asbestos and environmental claims, the effect of bankruptcy protection, insolvencies and changes in the legal, legislative and regulatory environment. As a result, the Group believes that projection of exposures for asbestos and environmental claims is subject to far less predictability relative to non-environmental and non-asbestos exposures. Management believes that its reserves for asbestos and environmental claims are appropriately established based upon known facts and the current state of the law. However, reserves are subject to revision as new information becomes available and as claims develop. Additional liabilities may arise for amounts in excess of reserves, and the Group's estimate of claims and claim adjustment expenses may change. Any such additional liabilities or increases in estimates cannot be reasonably estimated in advance but could result in charges that could be material to operating results.

6 Deferred acquisition costs (DAC) and acquired present value of future profits (PVFP)

As of 31 December, the DAC were as follows:

2016 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Total
Opening balance as of 1 January	2 051	3 020	387	13	5 471
Deferred	4 629	893	571	34	6 127
Amortisation	-4 379	-312	-513	-36	-5 240
Effect of foreign currency translation	-21	-136	-1		-158
Closing balance	2 280	3 465	444	11	6 200

2017 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Total
Opening balance as of 1 January	2 280	3 465	444	11	6 200
Deferred	4 068	1 294	553	71	5 986
Effect of acquisitions/disposals and retrocessions		-5	2	5	2
Amortisation	-4 255	-508	-549	-67	-5 379
Effect of foreign currency translation and other changes	53	-12	4	17	62
Closing balance	2 146	4 234	454	37	6 871

Retroceded DAC may arise on retrocession of reinsurance portfolios, including reinsurance undertaken as part of a securitisation. The associated potential retrocession recoveries are determined by the nature of the retrocession agreements and by the terms of the securitisation.

As of 31 December, the PVFP was as follows:

2016 USD millions	Life & Health Reinsurance	Life Capital		Total
		Positive PVFP	Negative PVFP	
Opening balance as of 1 January	1 134	1 830	0	2 964
Effect of acquisitions/disposals and retrocessions			-603	-603
Amortisation	-132	-198	51	-279
Interest accrued on unamortised PVFP	36	130	-19	147
Effect of change in unrealised gains/losses		1		1
Effect of foreign currency translation	-72	-205	50	-227
Closing balance	966	1 558	-521	2 003

2017 USD millions	Life & Health Reinsurance	Life Capital		Total
		Positive PVFP	Negative PVFP	
Opening balance as of 1 January	966	1 558	-521	2 003
Amortisation	-135	-143	45	-233
Interest accrued on unamortised PVFP	52	102	-17	137
Effect of change in unrealised gains/losses		-1		-1
Effect of foreign currency translation	38	96	-51	83
Closing balance	921	1 612	-544	1 989

Retroceded PVFP may arise on retrocession of reinsurance portfolios, including reinsurance undertaken as part of a securitisation. The associated potential retrocession recoveries are determined by the nature of the retrocession agreements and by the terms of the securitisation.

In 2016, the Group's Business Unit Life Capital acquired Guardian Holdings Europe Limited, the holding company for operations trading under the name Guardian Financial Services ("Guardian"), and recognised negative PVFP. Upon acquisition, PVFP is calculated as the difference between the estimated fair value and established reserves, which is in line with US GAAP accounting policies and assumptions of the Group. The product mix of Guardian is weighted towards annuity business, for which the fair value of insurance and investment contract liabilities significantly exceeds the established US GAAP reserves. This excess is mainly due to differences in discount rates and risk weightings between fair value and US GAAP estimates. Overall, the excess on the annuity business outweighs the estimated future gross profits of other business and synergy expectations included in the fair value of insurance and investment contract liabilities for the business as a whole, resulting in a negative PVFP.

The subsequent measurement of negative PVFP is in alignment with the existing measurement of positive PVFP assets (please refer to Note 1 of the 2016 Annual Report).

The percentage of PVFP which is expected to be amortised in each of the next five years is 12%, 13%, 12%, 11% and 11%.

7 Investments

Investment income

Net investment income by source (excluding unit-linked and with-profit business) was as follows:

USD millions	2016	2017
Fixed income securities	2 806	2 778
Equity securities	98	79
Policy loans, mortgages and other loans	156	148
Investment real estate	184	200
Short-term investments	54	65
Other current investments	153	118
Share in earnings of equity-accounted investees	41	100
Cash and cash equivalents	28	25
Net result from deposit-accounted contracts	118	127
Deposits with ceding companies	441	457
Gross investment income	4 079	4 097
Investment expenses	-397	-380
Interest charged for funds held	-21	-9
Net investment income – non-participating business	3 661	3 708

Dividends received from investments accounted for using the equity method were USD 176 million and USD 170 million for 2016 and 2017, respectively.

Share in earnings of equity-accounted investees included impairments of the carrying amount of equity-accounted investees of USD 66 million and USD 46 million for 2016 and 2017, respectively.

Realised gains and losses

Realised gains and losses for fixed income securities, equity securities and other investments (excluding unit-linked and with-profit business) were as follows:

USD millions	2016	2017
Fixed income securities available-for-sale:		
Gross realised gains	789	748
Gross realised losses	-202	-148
Equity securities available-for-sale:		
Gross realised gains	371	959
Gross realised losses	-122	-28
Other-than-temporary impairments	-88	-46
Net realised investment gains/losses on trading securities	110	27
Change in net unrealised investment gains/losses on trading securities	-14	3
Net realised/unrealised gains/losses on other investments	118	-8
Net realised/unrealised gains/losses on insurance-related activities	344	99
Foreign exchange gains/losses	178	121
Net realised investment gains/losses – non-participating business	1 484	1 727

Net realised/unrealised gains/losses on insurance-related activities included impairments of USD 11 million for 2017.

Investment result – unit-linked and with-profit business

For unit-linked contracts, the investment risk is borne by the policyholder. For with-profit contracts, the majority of the investment risk is also borne by the policyholder, although there are certain guarantees that limit the downside risk for the policyholder, and a certain proportion of the returns may be retained by the Group (typically 10%).

Net investment result on unit-linked and with-profit business credited to policyholders was as follows:

USD millions	2016		2017	
	Unit-linked	With-profit	Unit-linked	With-profit
Investment income – fixed income securities	100	134	69	120
Investment income – equity securities	735	69	705	69
Investment income – other	28	13	20	11
Total investment income – unit-linked and with-profit business	863	216	794	200
Realised gains/losses – fixed income securities	135	174	-12	12
Realised gains/losses – equity securities	3 631	321	2 094	191
Realised gains/losses – other	53	-11	28	8
Total realised gains/losses – unit-linked and with-profit business	3 819	484	2 110	211
Total net investment result – unit-linked and with-profit business	4 682	700	2 904	411

Impairment on fixed income securities related to credit losses

Other-than-temporary impairments for debt securities are bifurcated between credit and non-credit components, with the credit component recognised through earnings and the non-credit component recognised in other comprehensive income. The credit component of other-than-temporary impairments is defined as the difference between a security's amortised cost basis and the present value of expected cash flows. Methodologies for measuring the credit component of impairment are aligned to market observer forecasts of credit performance drivers. Management believes that these forecasts are representative of median market expectations.

For securitised products, cash flow projection analysis is conducted by integrating forward-looking evaluation of collateral performance drivers, including default rates, prepayment rates and loss severities and deal-level features, such as credit enhancement and prioritisation among tranches for payments of principal and interest. Analytics are differentiated by asset class, product type and security-level differences in historical and expected performance. For corporate bonds and hybrid debt instruments, an expected loss approach based on default probabilities and loss severities expected in the current and forecasted economic environment is used for securities identified as credit-impaired to project probability-weighted cash flows. Expected cash flows resulting from these analyses are discounted, and the present value is compared to the amortised cost basis to determine the credit component of other-than-temporary impairments.

A reconciliation of other-than-temporary impairments related to credit losses recognised in earnings was as follows:

USD millions	2016	2017
Balance as of 1 January	136	97
Credit losses for which an other-than-temporary impairment was not previously recognised	13	14
Reductions for securities sold during the period	-48	-24
Increase of credit losses for which an other-than-temporary impairment has been recognised previously, when the Group does not intend to sell, or more likely than not will not be required to sell before recovery	8	4
Impact of increase in cash flows expected to be collected	-7	-4
Impact of foreign exchange movements	-5	4
Balance as of 31 December	97	91

Financial statements

Notes to the Group financial statements

Investments available-for-sale

Amortised cost or cost, estimated fair values and other-than-temporary impairments of fixed income securities classified as available-for-sale as of 31 December were as follows:

2016 USD millions	Amortised cost or cost	Gross unrealised gains	Gross unrealised losses	Other-than-temporary impairments recognised in other comprehensive income	Estimated fair value
Debt securities issued by governments and government agencies:					
US Treasury and other US government corporations and agencies	13 162	481	-179		13 464
US Agency securitised products	3 415	22	-53		3 384
States of the United States and political subdivisions of the states	1 411	59	-20		1 450
United Kingdom	8 005	1 293	-97		9 201
Canada	3 916	517	-35		4 398
Germany	2 906	325	-15		3 216
France	1 931	277	-10		2 198
Australia	1 967	17	-5		1 979
Other	6 355	287	-96		6 546
Total	43 068	3 278	-510		45 836
Corporate debt securities	37 203	2 733	-181		39 755
Mortgage- and asset-backed securities	4 900	125	-30	-5	4 990
Fixed income securities available-for-sale	85 171	6 136	-721	-5	90 581
Equity securities available-for-sale	2 897	561	-83		3 375

2017 USD millions	Amortised cost or cost	Gross unrealised gains	Gross unrealised losses	Other-than-temporary impairments recognised in other comprehensive income	Estimated fair value
Debt securities issued by governments and government agencies:					
US Treasury and other US government corporations and agencies	14 397	273	-152		14 518
US Agency securitised products	5 884	18	-66		5 836
States of the United States and political subdivisions of the states	1 620	108	-7		1 721
United Kingdom	8 699	1 378	-31		10 046
Canada	3 969	543	-30		4 482
Germany	3 193	239	-22		3 410
France	2 015	252	-10		2 257
Australia	2 065	16	-4		2 077
Other	7 655	318	-76		7 897
Total	49 497	3 145	-398		52 244
Corporate debt securities	39 510	3 218	-136		42 592
Mortgage- and asset-backed securities	4 271	162	-19	-2	4 412
Fixed income securities available-for-sale	93 278	6 525	-553	-2	99 248
Equity securities available-for-sale	3 544	365	-47		3 862

The "Other-than-temporary impairments recognised in other comprehensive income" column includes only securities with a credit-related loss recognised in earnings. Subsequent recovery in fair value of securities previously impaired in other comprehensive income is also presented in the "Other-than-temporary impairments recognised in other comprehensive income" column.

Investments trading

The carrying amounts of fixed income securities and equity securities classified as trading (excluding unit-linked and with-profit business) as of 31 December were as follows:

USD millions	2016	2017
Debt securities issued by governments and government agencies	2 538	2 414
Corporate debt securities	45	38
Mortgage- and asset-backed securities	112	86
Fixed income securities trading – non-participating business	2 695	2 538
Equity securities trading – non-participating business	60	3

Investments held for unit-linked and with-profit business

The carrying amounts of investments held for unit-linked and with-profit business as of 31 December were as follows:

USD millions	2016		2017	
	Unit-linked	With-profit	Unit-linked	With-profit
Fixed income securities trading	2 379	2 774	2 105	3 104
Equity securities trading	23 859	1 948	26 582	2 201
Investment real estate	580	298	543	281
Other	265	75	286	64
Total investments for unit-linked and with-profit business	27 083	5 095	29 516	5 650

Maturity of fixed income securities available-for-sale

The amortised cost or cost and estimated fair values of investments in fixed income securities available-for-sale by remaining maturity are shown below. Fixed maturity investments are assumed not to be called for redemption prior to the stated maturity date. As of 31 December 2016 and 2017, USD 14 640 million and USD 17 742 million, respectively, of fixed income securities available-for-sale were callable.

USD millions	2016		2017	
	Amortised cost or cost	Estimated fair value	Amortised cost or cost	Estimated fair value
Due in one year or less	6 607	6 650	7 399	7 410
Due after one year through five years	19 180	19 623	29 459	29 724
Due after five years through ten years	19 240	20 079	15 921	16 652
Due after ten years	35 564	39 562	36 550	41 370
Mortgage- and asset-backed securities with no fixed maturity	4 580	4 667	3 949	4 092
Total fixed income securities available-for-sale	85 171	90 581	93 278	99 248

Assets pledged

As of 31 December 2017, investments with a carrying value of USD 7 384 million were on deposit with regulatory agencies in accordance with local requirements, and investments with a carrying value of USD 12 209 million were placed on deposit or pledged to secure certain reinsurance liabilities, including pledged investments in subsidiaries.

As of 31 December 2016 and 2017, securities of USD 16 059 million and USD 15 740 million, respectively, were transferred to third parties under securities lending transactions and repurchase agreements on a fully collateralised basis. Corresponding liabilities of USD 1 010 million and USD 989 million, respectively, were recognised in accrued expenses and other liabilities for the obligation to return collateral that the Group has the right to sell or repledge.

As of 31 December 2017, a real estate portfolio with a carrying value of USD 192 million serves as collateral for a credit facility, allowing the Group to withdraw funds up to CHF 500 million.

Collateral accepted which the Group has the right to sell or repledge

As of 31 December 2016 and 2017, the fair value of the equity securities, government and corporate debt securities received as collateral was USD 7 666 million and USD 7 476 million, respectively. Of this, the amount that was sold or repledged as of 31 December 2016 and 2017 was USD 3 469 million and USD 1 981 million, respectively. The sources of the collateral are securities borrowing, reverse repurchase agreements and derivative transactions.

Financial statements

Notes to the Group financial statements

Offsetting of derivatives, financial assets and financial liabilities

Offsetting of derivatives, financial assets and financial liabilities as of 31 December was as follows:

2016 USD millions	Gross amounts of recognised financial assets	Collateral set-off in the balance sheet	Net amounts of financial assets presented in the balance sheet	Related financial instruments not set-off in the balance sheet	Net amount
Derivative financial instruments – assets	2 801	–1 580	1 221		1 221
Reverse repurchase agreements	7 040	–3 986	3 054	–3 054	0
Securities borrowing	483	–314	169	–169	0
Total	10 324	–5 880	4 444	–3 223	1 221

2016 USD millions	Gross amounts of recognised financial liabilities	Collateral set-off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet	Related financial instruments not set-off in the balance sheet	Net amount
Derivative financial instruments – liabilities	–2 610	1 568	–1 042	8	–1 034
Repurchase agreements	–3 991	3 461	–530	527	–3
Securities lending	–1 319	839	–480	454	–26
Total	–7 920	5 868	–2 052	989	–1 063

2017 USD millions	Gross amounts of recognised financial assets	Collateral set-off in the balance sheet	Net amounts of financial assets presented in the balance sheet	Related financial instruments not set-off in the balance sheet	Net amount
Derivative financial instruments – assets	1 710	–1 176	534		534
Reverse repurchase agreements	6 053	–2 995	3 058	–3 058	0
Securities borrowing	1 589	–524	1 065	–1 065	0
Total	9 352	–4 695	4 657	–4 123	534

2017 USD millions	Gross amounts of recognised financial liabilities	Collateral set-off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet	Related financial instruments not set-off in the balance sheet	Net amount
Derivative financial instruments – liabilities	–1 924	1 342	–582	49	–533
Repurchase agreements	–2 631	2 471	–160	160	0
Securities lending	–1 878	1 049	–829	765	–64
Total	–6 433	4 862	–1 571	974	–597

Collateral pledged or received between two counterparties with a master netting arrangement in place, but not subject to balance sheet netting, is disclosed at fair value. The fair values represent the gross carrying value amounts at the reporting date for each financial instrument received or pledged by the Group. Management believes that master netting agreements provide for legally enforceable set-off in the event of default, which substantially reduces credit exposure. Upon occurrence of an event of default, the non-defaulting party may set off the obligation against collateral received regardless if it has been offset on balance sheet prior to the defaulting event. The net amounts of the financial assets and liabilities presented on the balance sheet were recognised in “Other invested assets”, “Investments for unit-linked and with-profit business” and “Accrued expenses and other liabilities”.

Recognised gross liability for the obligation to return collateral that the Group has the right to sell or repledge

As of 31 December 2016 and 2017, the gross amounts of liabilities related to repurchase agreements and securities lending by the class of securities transferred to third parties and by the remaining maturity are shown below. The liabilities are recognised for the obligation to return collateral that the Group has the right to sell or repledge.

2016 USD millions	Remaining contractual maturity of the agreements				
	Overnight and continuous	Up to 30 days	30–90 days	Greater than 90 days	Total
Repurchase agreements					
Debt securities issued by governments and government agencies	219	3 023	415	334	3 991
Total repurchase agreements	219	3 023	415	334	3 991
Securities lending					
Debt securities issued by governments and government agencies	237	367	258	426	1 288
Corporate debt securities	13				13
Equity securities	18				18
Total securities lending	268	367	258	426	1 319
Gross amount of recognised liabilities for repurchase agreements and securities lending					5 310

2017 USD millions	Remaining contractual maturity of the agreements				
	Overnight and continuous	Up to 30 days	30–90 days	Greater than 90 days	Total
Repurchase agreements					
Debt securities issued by governments and government agencies	31	2 091	354	139	2 615
Corporate debt securities		16			16
Total repurchase agreements	31	2 107	354	139	2 631
Securities lending					
Debt securities issued by governments and government agencies	244	567	614	442	1 867
Corporate debt securities	6				6
Equity securities	5				5
Total securities lending	255	567	614	442	1 878
Gross amount of recognised liabilities for repurchase agreements and securities lending					4 509

The programme is structured in a conservative manner within a clearly defined risk framework. Yield enhancement is conducted on a non-cash basis, thereby taking no re-investment risk.

Financial statements

Notes to the Group financial statements

Unrealised losses on securities available-for-sale

The following table shows the fair value and unrealised losses of the Group's fixed income securities, aggregated by investment category and length of time that individual securities were in a continuous unrealised loss position as of 31 December 2016 and 2017. As of 31 December 2016 and 2017, USD 62 million and USD 40 million, respectively, of the gross unrealised loss on equity securities available-for-sale relates to declines in value for less than 12 months and USD 21 million and USD 7 million, respectively, to declines in value for more than 12 months.

2016 USD millions	Less than 12 months		12 months or more		Total	
	Fair value	Unrealised losses	Fair value	Unrealised losses	Fair value	Unrealised losses
Debt securities issued by governments and government agencies:						
US Treasury and other US government corporations and agencies	6 709	179			6 709	179
US Agency securitised products	2 594	53	14	0	2 608	53
States of the United States and political subdivisions of the states	494	18	8	2	502	20
United Kingdom	1 762	87	56	10	1 818	97
Canada	1 759	26	40	9	1 799	35
Germany	1 337	15	100	0	1 437	15
France	703	10			703	10
Australia	461	2	132	3	593	5
Other	2 554	78	247	18	2 801	96
Total	18 373	468	597	42	18 970	510
Corporate debt securities	6 859	172	143	9	7 002	181
Mortgage- and asset-backed securities	1 599	26	147	9	1 746	35
Total	26 831	666	887	60	27 718	726

2017 USD millions	Less than 12 months		12 months or more		Total	
	Fair value	Unrealised losses	Fair value	Unrealised losses	Fair value	Unrealised losses
Debt securities issued by governments and government agencies:						
US Treasury and other US government corporations and agencies	9 742	113	1 825	39	11 567	152
US Agency securitised products	3 773	37	1 029	29	4 802	66
States of the United States and political subdivisions of the states	304	4	120	3	424	7
United Kingdom	1 161	18	301	13	1 462	31
Canada	1 766	29	276	1	2 042	30
Germany	722	19	44	3	766	22
France	214	8	7	2	221	10
Australia	1 118	3	74	1	1 192	4
Other	2 813	54	451	22	3 264	76
Total	21 613	285	4 127	113	25 740	398
Corporate debt securities	6 299	102	1 040	34	7 339	136
Mortgage- and asset-backed securities	1 617	14	421	7	2 038	21
Total	29 529	401	5 588	154	35 117	555

Mortgages, loans and real estate

As of 31 December, the carrying and respective fair values of investments in mortgages, policy and other loans and real estate (excluding unit-linked and with-profit business) were as follows:

USD millions	2016		2017	
	Carrying value	Fair value	Carrying value	Fair value
Policy loans	95	95	94	94
Mortgage loans	2 401	2 411	2 665	2 674
Other loans	1 186	1 202	1 351	1 367
Investment real estate	1 925	3 576	2 220	4 099

Depreciation expense related to income-producing properties was USD 42 million and USD 49 million for 2016 and 2017, respectively. Accumulated depreciation on investment real estate totalled USD 525 million and USD 585 million as of 31 December 2016 and 2017, respectively.

Substantially all mortgages, policy loans and other loan receivables are secured by buildings, land or the underlying policies.

8 Fair value disclosures

Fair value, as defined by the Fair Value Measurements and Disclosures Topic, is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

The Fair Value Measurements and Disclosures Topic requires all assets and liabilities that are measured at fair value to be categorised within the fair value hierarchy. This three-level hierarchy is based on the observability of the inputs used in the fair value measurement. The levels of the fair value hierarchy are defined as follows:

Level 1 inputs are quoted prices in active markets for identical assets or liabilities that the Group has the ability to access. Level 1 inputs are the most persuasive evidence of fair value and are to be used whenever possible.

Level 2 inputs are market-based inputs that are directly or indirectly observable, but not considered level 1 quoted prices. Level 2 inputs consist of (i) quoted prices for similar assets or liabilities in active markets; (ii) quoted prices for identical assets or liabilities in non-active markets (eg markets which have few transactions and where prices are not current or price quotations vary substantially); (iii) inputs other than quoted prices that are observable (eg interest rates, yield curves, volatilities, prepayment speeds, credit risks and default rates); and (iv) inputs derived from, or corroborated by, observable market data.

Level 3 inputs are unobservable inputs. These inputs reflect the Group's own assumptions about market pricing using the best internal and external information available.

The types of instruments valued, based on unadjusted quoted market prices in active markets, include most US government and sovereign obligations, active listed equities and most money market securities. Such instruments are generally classified within level 1 of the fair value hierarchy.

The types of instruments that trade in markets that are not considered to be active, but are valued based on quoted market prices, broker or dealer quotations, or alternative pricing sources with reasonable levels of price transparency, include most government agency securities, investment-grade corporate bonds, certain mortgage- and asset-backed products, less liquid listed equities, and state, municipal and provincial obligations. Such instruments are generally classified within level 2 of the fair value hierarchy.

Exchange-traded derivative instruments typically fall within level 1 or level 2 of the fair value hierarchy, depending on whether they are considered to be actively traded or not.

Certain financial instruments are classified within level 3 of the fair value hierarchy because they trade infrequently and therefore have little or no price transparency. Such instruments include private equity, less liquid corporate debt securities and certain asset-backed securities. Certain over-the-counter (OTC) derivatives trade in less liquid markets with limited pricing information, and the determination of fair value for these derivatives is inherently more difficult. Such instruments are classified within level 3 of the fair value hierarchy. Pursuant to the election of the fair value option, the Group classifies certain liabilities for life and health policy benefits in level 3 of the fair value hierarchy. When appropriate, valuations are adjusted for various factors such as liquidity, bid/offer spreads, and credit considerations. Such adjustments are generally based on available market evidence. In the absence of such evidence, management's best estimate is used.

The fair values of assets are adjusted to incorporate the counterparty risk of non-performance. Similarly, the fair values of liabilities reflect the risk of non-performance of the Group, captured by the Group's credit spread. These valuation adjustments from assets and liabilities measured at fair value using significant unobservable inputs are recognised in net realised gains and losses. For 2017, these adjustments were not material. Whenever the underlying assets or liabilities are reported in a specific business segment, the valuation adjustment is allocated accordingly. Valuation adjustments not attributable to any business segment are reported in Group items.

In certain situations, the Group uses inputs to measure the fair value of asset or liability positions that fall into different levels of the fair value hierarchy. In these situations, the Group will determine the appropriate level based on the lowest level input that is significant to the determination of the fair value.

Valuation techniques

US government securities typically have quoted market prices in active markets and are categorised as level 1 instruments in the fair value hierarchy. Non-US government holdings are generally classified as level 2 instruments and are valued on the basis of the quotes provided by pricing services, which are subject to the Group's pricing validation reviews and pricing vendor challenge process. Valuations provided by pricing vendors are generally based on the actual trade information as substantially all of the Group's non-US government holdings are traded in a transparent and liquid market.

Corporate debt securities mainly include US and European investment-grade positions, which are priced on the basis of quotes provided by third-party pricing vendors and first utilise valuation inputs from actively traded securities, such as bid prices, bid spreads to Treasury securities, Treasury curves, and same or comparable issuer curves and spreads. Issuer spreads are determined from actual quotes and traded prices and incorporate considerations of credit/default, sector composition, and liquidity and call features. Where market data is not available, valuations are developed based on the modelling techniques that utilise observable inputs and option-adjusted spreads and incorporate considerations of the security's seniority, maturity and the issuer's corporate structure.

Values of mortgage- and asset-backed securities are obtained both from third-party pricing vendors and through quoted prices, some of which may be based on the prices of comparable securities with similar structural and collateral features. Values of certain asset-backed securities (ABS) for which there are no significant observable inputs are developed using benchmarks to similar transactions or indices. For both residential mortgage-backed securities (RMBS) and commercial mortgage-backed securities (CMBS), cash flows are derived based on the transaction-specific information, which incorporates priority in the capital structure, and are generally adjusted to reflect benchmark yields, market prepayment data, collateral performance (default rates and loss severity) for specific vintage and geography, credit enhancements, and ratings. For certain RMBS and CMBS with low levels of market liquidity, judgements may be required to determine comparable securities based on the loan type and deal-specific performance. CMBS terms may also incorporate lock-out periods that restrict borrowers from prepaying the loans or provide disincentives to prepay and therefore reduce prepayment risk of these securities, compared to RMBS. The factors specifically considered in valuation of CMBS include borrower-specific statistics in a specific region, such as debt service coverage and loan-to-value ratios, as well as the type of commercial property. Mortgage- and asset-backed securities also includes debt securitised by credit card, student loan and auto loan receivables. Pricing inputs for these securities also focus on capturing, where relevant, collateral quality and performance, payment patterns, and delinquencies.

The Group uses third-party pricing vendor data to value agency securitised products, which mainly include collateralised mortgage obligations (CMO) and mortgage-backed government agency securities. The valuations generally utilise observable inputs consistent with those noted above for RMBS and CMBS.

Equity securities held by the Group for proprietary investment purposes are mainly classified in level 1. Securities classified in level 1 are traded on public stock exchanges for which quoted prices are readily available.

The category "Other invested assets" includes the Group's private equity and hedge fund investments which are made directly or via ownership of funds. Valuation of direct private equity investments requires significant management judgement due to the absence of quoted market prices and the lack of liquidity. Initial valuation is based on the acquisition cost, and is further refined based on the available market information for the public companies that are considered comparable to the Group's holdings in the private companies being valued, and the private company-specific performance indicators, both historic and projected. Subsequent valuations also reflect business or asset appraisals, as well as market transaction data for private and public benchmark companies and the actual companies being valued, such as financing rounds and mergers and acquisitions activity. The Group's holdings in private equity and hedge funds are generally valued utilising net asset values (NAV), subject to adjustments, as deemed necessary, for restrictions on redemption (lock-up periods and amount limitations on redemptions). These investments are included under investments measured at net asset value as a practical expedient.

The Group holds both exchange-traded and OTC interest rate, foreign exchange, credit and equity derivative contracts for hedging and trading purposes. The fair values of exchange-traded derivatives measured using observable exchange prices are classified in level 1. Long-dated contracts may require adjustments to the exchange-traded prices which would trigger reclassification to level 2 in the fair value hierarchy. OTC derivatives are generally valued by the Group based on the internal models, which are consistent with industry standards and practices, and use both observable (dealer, broker or market consensus prices, spot and forward rates, interest rate and credit curves and volatility indices) and unobservable inputs (adjustments for liquidity, inputs derived from the observable data based on the Group's judgements and assumptions).

Financial statements

Notes to the Group financial statements

The Group's OTC interest rate derivatives primarily include interest rate swaps, futures, options, caps and floors, and are valued based on the cash flow discounting models which generally utilise as inputs observable market yield curves and volatility assumptions.

The Group's OTC foreign exchange derivatives primarily include forward, spot and option contracts and are generally valued based on the cash flow discounting models, utilising as main inputs observable foreign exchange forward curves.

The Group's investments in equity derivatives primarily include OTC equity option contracts on single or baskets of market indices and equity options on individual or baskets of equity securities, which are valued using internally developed models (such as the Black-Scholes type option pricing model and various simulation models) calibrated with the inputs, which include underlying spot prices, dividend curves, volatility surfaces, yield curves, and correlations between underlying assets.

The Group's OTC credit derivatives can include index and single-name credit default swaps, as well as more complex structured credit derivatives. Plain vanilla credit derivatives, such as index and single-name credit default swaps, are valued by the Group based on the models consistent with the industry valuation standards for these credit contracts, and primarily utilise observable inputs published by market data sources, such as credit spreads and recovery rates. These valuation techniques warrant classification of plain vanilla OTC derivatives as level 2 financial instruments in the fair value hierarchy.

Governance around level 3 fair valuation

The Asset Valuation Committee, endorsed by the Group Executive Committee, has a primary responsibility for governing and overseeing all of Group's asset and derivative valuation policies and operating parameters (including level 3 measurements). The Asset Valuation Committee delegates the responsibility for implementation and oversight of consistent application of the Group's pricing and valuation policies to the Pricing and Valuation Committee.

The Pricing and Valuation Committee, which is a joint Risk Management & Finance management control committee, is responsible for the implementation and consistent application of the pricing and valuation policies. Key functions of the Pricing and Valuation Committee include: oversight over the entire valuation process, approval of internal valuation methodologies, approval of external pricing vendors, monitoring of the independent price verification (IPV) process and resolution of significant or complex valuation issues.

A formal IPV process is undertaken monthly by members of the Valuation Risk Management team within a Financial Risk Management function. The process includes monitoring and in-depth analyses of approved pricing methodologies and valuations of the Group's financial instruments aimed at identifying and resolving pricing discrepancies.

The Risk Management function is responsible for independent validation and ongoing review of the Group's valuation models. The Product Control group within Finance is tasked with reporting of fair values through the vendor- and model-based valuations, the results of which are also subject to the IPV process.

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Financial statements

Notes to the Group financial statements

Assets and liabilities measured at fair value on a recurring basis

As of 31 December, the fair values of assets and liabilities measured on a recurring basis by level of input were as follows:

2016 USD millions	Quoted prices in active markets for identical assets and liabilities (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Impact of netting ¹	Investments measured at net asset value as practical expedient	Total
Assets						
Fixed income securities held for proprietary investment purposes	13 078	79 016	1 182			93 276
Debt securities issued by US government and government agencies	13 078	2 076				15 154
US Agency securitised products		3 423				3 423
Debt securities issued by non-US governments and government agencies		29 797				29 797
Corporate debt securities		38 625	1 175			39 800
Mortgage and asset-backed securities		5 095	7			5 102
Fixed income securities backing unit-linked and with-profit business		5 153				5 153
Equity securities held for proprietary investment purposes	3 426	5	4			3 435
Equity securities backing unit-linked and with-profit business	25 807					25 807
Short-term investments held for proprietary investment purposes	5 409	5 500				10 909
Short-term investments backing unit-linked and with-profit business		6				6
Derivative financial instruments	30	2 310	461	-1 580		1 221
Interest rate contracts	14	1 044				1 058
Foreign exchange contracts		765				765
Equity contracts	4	433	341			778
Other contracts		5	120			125
Contracts backing unit-linked and with-profit business	12	63				75
Investment real estate			209			209
Other invested assets	266	183	496		937	1 882
Other investments backing unit-linked and with-profit business		42				42
Funds held by ceding companies		225				225
Total assets at fair value	48 016	92 440	2 352	-1 580	937	142 165
Liabilities						
Derivative financial instruments	-5	-1 941	-664	1 568		-1 042
Interest rate contracts	-3	-709				-712
Foreign exchange contracts		-591				-591
Equity contracts	-1	-569	-39			-609
Other contracts		-5	-625			-630
Contracts backing unit-linked and with-profit business	-1	-67				-68
Liabilities for life and health policy benefits			-144			-144
Accrued expenses and other liabilities	-384	-4 084				-4 468
Total liabilities at fair value	-389	-6 025	-808	1 568		-5 654

¹ The netting of derivative receivables and derivative payables is permitted when a legally enforceable master netting agreement exists between two counterparties. A master netting agreement provides for the net settlement of all contracts, as well as cash collateral, through a single payment, in a single currency, in the event of default or on the termination of any one contract.

2017 USD millions	Quoted prices in active markets for identical assets and liabilities (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Impact of netting ¹	Investments measured at net asset value as practical expedient	Total
Assets						
Fixed income securities held for proprietary investment purposes	14 013	86 420	1 353			101 786
Debt securities issued by US government and government agencies	14 013	2 392				16 405
US Agency securitised products		5 965				5 965
Debt securities issued by non-US governments and government agencies		32 285	3			32 288
Corporate debt securities		41 287	1 343			42 630
Mortgage and asset-backed securities		4 491	7			4 498
Fixed income securities backing unit-linked and with-profit business		5 209				5 209
Equity securities held for proprietary investment purposes	3 856	5	4			3 865
Equity securities backing unit-linked and with-profit business	28 770	13				28 783
Short-term investments held for proprietary investment purposes	1 021	3 825				4 846
Short-term investments backing unit-linked and with-profit business		59				59
Derivative financial instruments	50	1 274	386	-1 176		534
Interest rate contracts	4	511	5			520
Foreign exchange contracts		307				307
Equity contracts	43	451	283			777
Credit contracts		1				1
Other contracts			98			98
Contracts backing unit-linked and with-profit business	3	4				7
Investment real estate			198			198
Other invested assets	765	12	509		828	2 114
Funds held by ceding companies		206				206
Total assets at fair value	48 475	97 023	2 450	-1 176	828	147 600
Liabilities						
Derivative financial instruments	-22	-1 423	-479	1 342		-582
Interest rate contracts	-2	-395	-1			-398
Foreign exchange contracts		-321				-321
Equity contracts	-19	-622	-31			-672
Credit contracts		-79				-79
Other contracts			-447			-447
Contracts backing unit-linked and with-profit business	-1	-6				-7
Liabilities for life and health policy benefits			-126			-126
Accrued expenses and other liabilities	-939	-1 785				-2 724
Total liabilities at fair value	-961	-3 208	-605	1 342		-3 432

¹ The netting of derivative receivables and derivative payables is permitted when a legally enforceable master netting agreement exists between two counterparties. A master netting agreement provides for the net settlement of all contracts, as well as cash collateral, through a single payment, in a single currency, in the event of default or on the termination of any one contract.

Financial statements

Notes to the Group financial statements

Assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs (level 3)

As of 31 December, the reconciliation of the fair values of assets and liabilities measured on a recurring basis using significant unobservable inputs were as follows:

2016 USD millions	Fixed income securities	Equity securities	Derivative assets	Investment real estate	Other invested assets	Total assets	Derivative liabilities	Liabilities for life and health policy benefits	Total liabilities
Assets and liabilities									
Balance as of 1 January	393	34	447		1 595	2 469	-581	-165	-746
Impact of Accounting Standards Updates ¹				274	-1 120	-846	-207		-207
Realised/unrealised gains/losses:									
Included in net income	3		58	32	-20	73	188	20	208
Included in other comprehensive income	24	1			6	31			0
Purchases	577		2		43	622	4		4
Issuances						0	-141		-141
Sales	-37		-13	-59	-3	-112	101		101
Settlements	-59		-39			-98	-52		-52
Transfers into level 3 ²	302		6		12	320	-5		-5
Transfers out of level 3 ²	-6	-29				-35			0
Impact of foreign exchange movements	-15	-2		-38	-17	-72	29	1	30
Closing balance as of 31 December	1 182	4	461	209	496	2 352	-664	-144	-808

¹ Impact of ASU 2015-02 (Investment real estate and Derivative liabilities) and ASU 2015-07 (Other invested assets). Please refer to Note 1 of the 2016 Annual Report.

² Transfers are recognised at the date of the event or change in circumstances that caused the transfer.

2017 USD millions	Fixed income securities	Equity securities	Derivative assets	Investment real estate	Other invested assets	Total assets	Derivative liabilities	Liabilities for life and health policy benefits	Total liabilities
Assets and liabilities									
Balance as of 1 January	1 182	4	461	209	496	2 352	-664	-144	-808
Realised/unrealised gains/losses:									
Included in net income	-8	-2	23	19	34	66	202	19	221
Included in other comprehensive income	13	4			16	33			0
Purchases	264		26			290			0
Issuances						0	-84		-84
Sales	-59		-45	-49	-44	-197	83		83
Settlements	-84		-79		-6	-169	-1		-1
Transfers into level 3 ¹	45					45			0
Transfers out of level 3 ¹	-89	-2				-91			0
Impact of foreign exchange movements	89			19	13	121	-15	-1	-16
Closing balance as of 31 December	1 353	4	386	198	509	2 450	-479	-126	-605

¹ Transfers are recognised at the date of the event or change in circumstances that caused the transfer.

Gains and losses on assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs (level 3)

The gains and losses relating to the assets and liabilities measured at fair value using significant unobservable inputs (level 3) for the years ended 31 December were as follows:

USD millions	2016	2017
Gains/losses included in net income for the period	281	287
Whereof change in unrealised gains/losses relating to assets and liabilities still held at the reporting date	134	226

Assets and liabilities measured at fair value on a non-recurring basis

In accordance with the provisions of the Impairment or Disposal of Long-Lived Assets Subsections of FASB Codification Subtopic 360-10, other assets with a carrying amount of USD 21 million were written down to their fair value of USD 17 million, resulting in a loss of USD 4 million, which was included in earnings for the period in "Operating expenses". This non-recurring fair value measurement was based on level 3 unobservable inputs using a discounted cash flow approach.

Financial statements

Notes to the Group financial statements

Quantitative information about level 3 fair value measurements

Unobservable inputs for major level 3 assets and liabilities as of 31 December were as follows:

USD millions	2016 Fair value	2017 Fair value	Valuation technique	Unobservable input	Range (weighted average)
Assets					
Corporate debt securities	1 175	1 343			
Infrastructure loans	486	778	Discounted Cash Flow Model	Valuation spread	73 bps–232 bps (165 bps)
Private placement corporate debt	506	428	Corporate Spread Matrix	Credit spread	37 bps–246 bps (162 bps)
Private placement credit tenant leases	48	46	Discounted Cash Flow Model	Illiquidity premium	75 bps–175 bps (133 bps)
Derivative equity contracts	341	283			
OTC equity option referencing correlated equity indices	341	283	Proprietary Option Model	Correlation	–45%–100% (27.5%) ¹
Investment real estate	209	198	Discounted Cash Flow Model	Discount rate	5% per annum
Liabilities					
Derivative equity contracts	–39	–31			
OTC equity option referencing correlated equity indices	–39	–31	Proprietary Option Model	Correlation	–45%–100% (27.5%) ¹
Other derivative contracts and liabilities for life and health policy benefits	–769	–573			
Variable annuity and fair valued GMDB contracts	–500	–325	Discounted Cash Flow Model	Risk margin Volatility Lapse Mortality adjustment Withdrawal rate	4% (n.a.) 4%–42% 0.5%–33% –10%–0% 0%–90%
Swap liability referencing real estate investments	–161	–150	Discounted Cash Flow Model	Discount rate	5% per annum
Weather contracts	–41	–35	Proprietary Option Model	Risk margin Correlation Volatility (power/gas) Volatility (temperature) Index value (temperature)	8%–11% (10.9%) –69%–52% (–53.1%) 27%–110% (98.2%) 146–467 (199) HDD/CAT ² 1769–4159 (3638) HDD/CAT ²

¹ Represents average input value for the reporting period.

² Heating Degree Days (HDD); Cumulative Average Temperature (CAT).

Sensitivity of recurring level 3 measurements to changes in unobservable inputs

The significant unobservable input used in the fair value measurement of the Group's infrastructure loans is valuation spread. A significant increase (decrease) in this input in isolation would result in a significantly lower (higher) fair value measurement. The significant unobservable input used in the fair value measurement of the Group's private placement corporate debt securities is credit spread. A significant increase (decrease) in this input in isolation would result in a significantly lower (higher) fair value measurement. The significant unobservable input used in the fair value measurement of the Group's private placement credit tenant leases is illiquidity premium. A significant increase (decrease) in this input in isolation would result in a significantly lower (higher) fair value measurement.

The significant unobservable input used in the fair value measurement of the Group's OTC equity option referencing correlated equity indices is correlation. Where the Group is long correlation risk, a significant increase (decrease) in this input in isolation would result in a significantly higher (lower) fair value measurement. Where the Group is short correlation risk, a significant increase (decrease) in this input in isolation would result in a significantly lower (higher) fair value measurement.

The significant unobservable input used in the fair value measurement of the Group's investment real estate and swap liability referencing real estate investment is the rate used to discount future cash flows from property sales. A significant increase (decrease) in this input in isolation would result in a significantly lower (higher) fair value measurement.

The significant unobservable inputs used in the fair value measurement of the Group's variable annuity and fair valued guaranteed minimum death benefit (GMDB) contracts are: risk margin, volatility, lapse, mortality adjustment rate and withdrawal rate. A significant increase (decrease) in isolation in each of the following inputs: risk margin, volatility and withdrawal rate would result in a significantly higher (lower) fair value of the Group's obligation. A significant increase (decrease) in isolation in a lapse rate for in-the-money contracts would result in a significantly lower (higher) fair value of the Group's obligation, whereas for out-of-the-money contracts, an isolated increase (decrease) in a lapse assumption would increase (decrease) fair value of the Group's obligation. Changes in the mortality adjustment rate impact the fair value of the Group's obligation differently for living-benefit products, compared to death-benefit products. For the former, a significant increase (decrease) in the mortality adjustment rate (ie increase (decrease) in mortality, respectively) in isolation would result in a decrease (increase) in fair value of the Group's liability. For the latter, a significant increase (decrease) in the mortality adjustment rate in isolation would result in an increase (decrease) in fair value of the Group's liability.

The significant unobservable inputs used in the fair value measurement of the Group's weather contracts are risk margin, correlation, volatility and index value. Where the Group has a long position, a significant increase (decrease) in the risk margin input in isolation would result in a significantly higher (lower) fair value measurement. Where the Group has a long volatility or correlation position, a significant increase (decrease) in the correlation and volatility inputs would result in a significantly higher (lower) fair value measurement. Where the Group has a long index position, an increase (decrease) in the index value input in isolation would result in a significantly higher (lower) fair value measurement. Where the Group has a short position, a significant increase (decrease) in the risk margin input in isolation would result in a significantly lower (higher) fair value measurement. Where the Group has a short volatility or correlation position, a significant increase (decrease) in the correlation and volatility inputs would result in a significantly lower (higher) fair value measurement. Where the Group has a short index position, an increase (decrease) in the index value input in isolation would result in a significantly lower (higher) fair value measurement.

Financial statements

Notes to the Group financial statements

Other invested assets measured at net asset value

Other invested assets measured at net asset value as of 31 December were as follows:

USD millions	2016 Fair value	2017 Fair value	Unfunded commitments	Redemption frequency (if currently eligible)	Redemption notice period
Private equity funds	562	511	104	non-redeemable	n.a.
Hedge funds	106	128		redeemable ¹	45–95 days ²
Private equity direct	80	92		non-redeemable	n.a.
Real estate funds	189	97	32	non-redeemable	n.a.
Total	937	828	136		

¹ The redemption frequency varies by position.

² Cash distribution can be delayed for an extended period depending on the sale of the underlyings.

The hedge fund investments employ a variety of strategies, including global macro, relative value, event-driven and long/short equity across various asset classes.

The private equity direct portfolio consists of equity and equity-like investments directly in other companies. These investments have no contractual term and are generally held based on financial or strategic intent.

Private equity and real estate funds generally have limitations imposed on the amount of redemptions from the fund during the redemption period due to illiquidity of the underlying investments. Fees may apply for redemptions or transferring of interest to other parties. Distributions are expected to be received from these funds as the underlying assets are liquidated over the life of the fund, which is generally from 10 to 12 years.

The redemption frequency of hedge funds varies depending on the manager as well as the nature of the underlying product. Additionally, certain funds may impose lock-up periods and redemption gates as defined in the terms of the individual investment agreement.

Fair value option

The fair value option under the Financial Instruments Topic permits the choice to measure specified financial assets and liabilities at fair value on an instrument-by-instrument basis. The Group elected the fair value option for positions in the following line items:

Other invested assets

The Group elected the fair value option for certain investments classified as equity method investees within other invested assets in the balance sheet. The Group applied the fair value option, as the investments are managed on a fair value basis. The changes in fair value of these elected investments are recorded in earnings.

Funds held by ceding companies

For operational efficiencies, the Group elected the fair value option for funds held by the cedent under three of its reinsurance agreements. The assets are carried at fair value and changes in fair value are reported as a component of earnings.

Other investments backing unit-linked and with-profit business

For operational efficiencies, the Group elected the fair value option for equity-linked deposits from one of its unit-linked businesses. The assets are carried at fair value and changes in fair value are reported as a component of earnings. In the balance sheet and the following fair value disclosures, this item is included under "Investments for unit-linked and with-profit business".

Liabilities for life and health policy benefits

The Group elected the fair value option for existing GMDB reserves related to certain variable annuity contracts which are classified as universal life-type contracts. The Group has applied the fair value option, as the equity risk associated with those contracts is managed on a fair value basis and it is economically hedged with derivative options in the market.

Other derivative liabilities

For operational efficiencies, the Group elected the fair value option on a hybrid financial instrument, where the host contract is a debt instrument and the embedded derivative is pegged to the performance of the fund's real estate portfolio. The liability is carried at fair value and changes in fair value are reported as a component of earnings. In the balance sheet and the following fair value disclosures, this item is included under "Accrued expenses and other liabilities".

Assets and liabilities measured at fair value pursuant to election of the fair value option

Pursuant to the election of the fair value option for the items described, the balances as of 31 December were as follows:

USD millions	2016	2017
Assets		
Other invested assets	9 611	9 904
of which at fair value pursuant to the fair value option	442	446
Funds held by ceding companies	8 184	9 155
of which at fair value pursuant to the fair value option	225	206
Investments for unit-linked and with-profit business	32 178	35 166
of which at fair value pursuant to the fair value option	42	
Liabilities		
Liabilities for life and health policy benefits	-41 176	-42 561
of which at fair value pursuant to the fair value option	-144	-126
Accrued expenses and other liabilities	-9 811	-7 190
of which at fair value pursuant to the fair value option	-161	-150

Changes in fair values for items measured at fair value pursuant to election of the fair value option

Gains/losses included in earnings for items measured at fair value pursuant to election of the fair value option including foreign exchange impact for the years ended 31 December were as follows:

USD millions	2016	2017
Other invested assets	-19	36
Funds held by ceding companies	6	
Investments for unit-linked and with-profit business	9	
Liabilities for life and health policy benefits	20	19
Accrued expenses and other liabilities	17	20
Total	33	75

Fair value changes from other invested assets and funds held by ceding companies are reported in "Net investment income – non-participating business". Fair value changes from investments for unit-linked and with-profit business are reported in "Net investment result – unit-linked and with-profit business". Fair value changes from accrued expenses and other liabilities are reported in "Net realised investment gains/losses – non-participating business". Fair value changes from the GMDB reserves are shown in "Life and health benefits".

Financial statements

Notes to the Group financial statements

Assets and liabilities not measured at fair value but for which the fair value is disclosed

Assets and liabilities not measured at fair value but for which the fair value is disclosed as of 31 December were as follows:

2016 USD millions	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Assets			
Policy loans		95	95
Mortgage loans		2 411	2 411
Other loans		1 202	1 202
Investment real estate		3 367	3 367
Total assets	0	7 075	7 075
Liabilities			
Debt	-8 201	-4 938	-13 139
Total liabilities	-8 201	-4 938	-13 139

2017 USD millions	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Assets			
Policy loans		94	94
Mortgage loans		2 674	2 674
Other loans		1 367	1 367
Investment real estate		3 901	3 901
Total assets	0	8 036	8 036
Liabilities			
Debt	-7 607	-5 074	-12 681
Total liabilities	-7 607	-5 074	-12 681

Policy loans, other loans and certain mortgage loans are classified as level 3 measurements, as they do not have an active exit market. Some of these positions need to be assessed in conjunction with the corresponding insurance business, whilst the fair value of some other positions does not differ materially from the carrying amount. Considering these circumstances for these positions, the Group presents the carrying amount as an approximation for the fair value. For certain commercial mortgage loans and infrastructure loans, which are included in mortgage loans and other loans respectively, the fair value can be estimated using discounted cash flow models which are based on discount curves and spread inputs that require management's judgement.

Investments in real estate are fair valued primarily by external appraisers based on proprietary discounted cash flow models that incorporate applicable risk premium adjustments to discount yields and projected market rental income streams based on market-specific data. These fair value measurements are classified in level 3 in the fair value hierarchy.

Debt positions, which are fair valued based on executable broker quotes or based on the discounted cash flow method using observable inputs, are classified as level 2 measurements. Fair value of the majority of the Group's level 3 debt positions is judged to approximate carrying value due to the highly tailored nature of the obligation and short-notice termination provisions.

9 Derivative financial instruments

The Group uses a variety of derivative financial instruments including swaps, options, forwards, credit derivatives and exchange-traded financial futures in its trading and hedging strategies, in line with the Group's overall risk management strategy. The objectives include managing exposure to price, foreign currency and/or interest rate risk on planned or anticipated investment purchases, existing assets or liabilities, as well as locking in attractive investment conditions for future available funds.

The fair values represent the gross carrying value amounts at the reporting date for each class of derivative contract held or issued by the Group. The gross fair values are not an indication of credit risk, as many over-the-counter transactions are contracted and documented under ISDA master agreements or their equivalent. Management believes that such agreements provide for legally enforceable set-off in the event of default, which substantially reduces credit exposure.

Financial statements

Notes to the Group financial statements

Fair values and notional amounts of derivative financial instruments

As of 31 December, the fair values and notional amounts of the derivatives outstanding were as follows:

2016 USD millions	Notional amount assets/liabilities	Fair value assets	Fair value liabilities	Carrying value assets/liabilities
Derivatives not designated as hedging instruments				
Interest rate contracts	42 622	1 120	-780	340
Foreign exchange contracts	19 138	350	-574	-224
Equity contracts	12 512	788	-609	179
Credit contracts				0
Other contracts	16 226	125	-630	-505
Total	90 498	2 383	-2 593	-210
Derivatives designated as hedging instruments				
Foreign exchange contracts	9 303	418	-17	401
Total	9 303	418	-17	401
Total derivative financial instruments	99 801	2 801	-2 610	191
Amount offset				
Where a right of set-off exists		-1 122	1 122	
Due to cash collateral		-458	446	
Total net amount of derivative financial instruments		1 221	-1 042	179
2017				
USD millions	Notional amount assets/liabilities	Fair value assets	Fair value liabilities	Carrying value assets/liabilities
Derivatives not designated as hedging instruments				
Interest rate contracts	36 386	524	-404	120
Foreign exchange contracts	16 592	206	-137	69
Equity contracts	17 049	780	-673	107
Credit contracts	4 194	1	-79	-78
Other contracts	12 432	98	-447	-349
Total	86 653	1 609	-1 740	-131
Derivatives designated as hedging instruments				
Foreign exchange contracts	12 362	101	-184	-83
Total	12 362	101	-184	-83
Total derivative financial instruments	99 015	1 710	-1 924	-214
Amount offset				
Where a right of set-off exists		-801	801	
Due to cash collateral		-375	541	
Total net amount of derivative financial instruments		534	-582	-48

The notional amounts of derivative financial instruments give an indication of the Group's volume of derivative activity. The fair value assets are included in "Other invested assets" and "Investments for unit-linked and with-profit business", and the fair value liabilities are included in "Accrued expenses and other liabilities". The fair value amounts that were not offset were nil as of 31 December 2016 and 2017.

Non-hedging activities

The Group primarily uses derivative financial instruments for risk management and trading strategies. Gains and losses of derivative financial instruments not designated as hedging instruments are recorded in “Net realised investment gains/losses — non-participating business” and “Net investment result — unit-linked and with-profit business” in the income statement. For the years ended 31 December, the gains and losses of derivative financial instruments not designated as hedging instruments were as follows:

USD millions	2016	2017
Derivatives not designated as hedging instruments		
Interest rate contracts	391	43
Foreign exchange contracts	-116	301
Equity contracts	-217	-254
Credit contracts	-1	-25
Other contracts	181	287
Total gains/losses recognised in income	238	352

Hedging activities

The Group designates certain derivative financial instruments as hedging instruments. The designation of derivative financial instruments is primarily used for overall portfolio and risk management strategies. As of 31 December 2016 and 2017, the following hedging relationships were outstanding:

Fair value hedges

The Group enters into foreign exchange swaps to reduce the exposure to foreign exchange volatility for certain fixed income securities. These derivative instruments are designated as hedging instruments in qualifying fair value hedges. Gains and losses on derivative financial instruments designated as fair value hedging instruments are recorded in “Net realised investment gains/losses — non-participating business” in the income statement. For the years ended 31 December, the gains and losses attributable to the hedged risks were as follows:

USD millions	2016		2017	
	Gains/losses on derivatives	Gains/losses on hedged items	Gains/losses on derivatives	Gains/losses on hedged items
Fair value hedging relationships				
Foreign exchange contracts	250	-250	-577	577
Total gains/losses recognised in income	250	-250	-577	577

Cash flow hedges

The Group entered into cross-currency swaps to reduce the exposure to foreign exchange volatility for a long-term debt instrument issued in the second quarter of 2016 and a portfolio of foreign currency denominated corporate bonds. These derivative instruments are designated as cash flow hedging instruments.

For the year ended 31 December 2017, the Group recorded a gain of USD 30 million on derivatives in accumulated other comprehensive income. For the year ended 31 December 2017, the Group reclassified a gain of USD 33 million from accumulated other comprehensive income into income.

As of 31 December 2017, the maximum length of time over which the Group hedged its exposure to the variability in future cash flows for forecasted transactions, excluding those forecasted transactions related to the payment of variable interest on existing financial instruments, was nine years.

The Group believes that the net gains and losses associated with cash flow hedges expected to be reclassified from accumulated other comprehensive income within the next twelve months cannot be reasonably estimated as they relate to foreign exchange volatility.

Hedges of the net investment in foreign operations

The Group designates derivative and non-derivative monetary financial instruments as hedging the foreign currency exposure of its net investment in certain foreign operations.

For the years ended 31 December 2016 and 2017, the Group recorded an accumulated net unrealised foreign currency remeasurement gain of USD 2 448 million and a gain of USD 1 552 million, respectively, in shareholders' equity. These offset translation gains and losses on the hedged net investment.

Financial statements

Notes to the Group financial statements

Maximum potential loss

In consideration of the rights of set-off and the qualifying master netting arrangements with various counterparties, the maximum potential loss as of 31 December 2016 and 2017 was approximately USD 1 679 million and USD 909 million, respectively. The maximum potential loss is based on the positive market replacement cost assuming non-performance of all counterparties, excluding cash collateral.

Credit risk-related contingent features

Certain derivative instruments held by the Group contain provisions that require its debt to maintain an investment-grade credit rating. If the Group's credit rating were downgraded or no longer rated, the counterparties could request immediate payment, guarantee or an ongoing full overnight collateralisation on derivative instruments in net liability positions.

The total fair value of derivative financial instruments containing credit risk-related contingent features amounted to USD 107 million and USD 102 million as of 31 December 2016 and 2017, respectively. For derivative financial instruments containing credit risk-related contingent features, the Group posted collateral of nil as of 31 December 2016 and 2017, respectively. In the event of a reduction of the Group's credit rating to below investment grade, a fair value of USD 102 million additional collateral would have had to be posted as of 31 December 2017. The total equals the amount needed to settle the instruments immediately as of 31 December 2017.

10 Acquisitions

Bradesco Seguros, S.A.

On 3 July 2017, the Group and Bradesco Seguros, S.A. (Bradesco) entered into a partnership combining the large Commercial Risk business of Bradesco with Swiss Re Corporate Solutions Brasil Seguros S.A. (SRCSB). Upon closing this transaction, SRCSB became one of the leading insurers in the commercial large-risk insurance market in Brazil. The acquisition cost was BRL 210 million paid in cash and 40% shares of SRCSB. The transaction includes Bradesco's related operations, its team of experts and a business portfolio, including existing, new and renewal business.

This transaction strengthens the Group's position in the Brazilian commercial insurance market by combining two diversified portfolios and securing a sustainable and large distribution channel.

Qualifying purchased intangible assets have been established.

The following table presents details of acquired intangible assets subject to amortisation as of the date of acquisition:

USD millions	Weighted-average amortisation period	Carrying value
Distribution channels	11 years	72
Customer relationships	6 years	24
Other intangibles	2 years	6

In addition, the intangibles not subject to amortisation are licences of USD 29 million and goodwill of USD 38 million. The goodwill relates to the Corporate Solutions Business Unit and is not expected to be deductible for tax purposes.

IHC Risk Solutions, LLC

On 31 March 2016, the Group acquired IHC Risk Solutions, LLC (IHC), a leading US employer stop loss company and the direct employer stop loss business of Independence Holding Company. The cost of the acquisition was USD 153 million. The transaction includes IHC's operations, its team of experts and business portfolio, including in-force, new and renewal business and is reflected in the Corporate Solutions Business Unit results. This acquisition broadens the Group's current employer stop loss capabilities in the small- and middle-market self-funded healthcare benefits segment.

Guardian Holdings Europe Limited

On 6 January 2016, the Group acquired 100% of the shares of Guardian Holdings Europe Limited, the holding company for operations trading under the name Guardian Financial Services ("Guardian") from private equity company Cinven. Guardian provided insurance solutions to financial institutions and insurance companies, either through the acquisition of closed books of business or through entering reinsurance agreements with its customers. The total cost of acquisition as of 6 January 2016 was USD 2.3 billion in cash.

Please refer to Note 10 of the 2016 Annual Report for further details on the Guardian Holdings Europe Limited's acquisition.

11 Debt and contingent capital instruments

The Group enters into long- and short-term debt arrangements to obtain funds for general corporate use and specific transaction financing. The Group defines short-term debt as debt having a maturity at the balance sheet date of not greater than one year and long-term debt as having a maturity of greater than one year. For subordinated debt positions, maturity is defined as the first optional redemption date (notwithstanding that optional redemption could be subject to regulatory consent). Interest expense is classified accordingly.

The Group's debt as of 31 December was as follows:

USD millions	2016	2017
Senior financial debt	590	433
Senior operational debt	431	
Subordinated financial debt	543	
Short-term debt – financial and operational debt	1 564	433
Senior financial debt	3 734	3 781
Senior operational debt	423	390
Subordinated financial debt	3 381	3 607
Subordinated operational debt	2 249	2 370
Long-term debt – financial and operational debt	9 787	10 148
Total carrying value	11 351	10 581
Total fair value	13 139	12 681

As of 31 December 2016 and 2017, operational debt, ie debt related to operational leverage, amounted to USD 3.1 billion (thereof USD 2.2 billion limited- or non-recourse) and USD 2.8 billion (thereof USD 2.4 billion limited- or non-recourse), respectively. Operational leverage is subject to asset/liability matching and is excluded from rating agency financial leverage calculations.

Maturity of long-term debt

As of 31 December, long-term debt as reported above had the following maturities:

USD millions	2016	2017
Due in 2018	0	0
Due in 2019	2 367	2 341
Due in 2020	195	197
Due in 2021	209	213
Due in 2022	771	845
Due after 2022	6 245	6 552
Total carrying value	9 787	10 148

Senior long-term debt

Maturity	Instrument	Issued in	Currency	Nominal in millions	Interest rate	Book value in USD millions
2019	Syndicated senior bank loans	2014	GBP	475	variable	642
2019	Senior notes ¹	1999	USD	234	6.45%	245
2022	Senior notes	2012	USD	250	2.88%	249
2023	Senior notes	2016	EUR	750	1.38%	895
2024	EMTN	2014	CHF	250	1.00%	255
2026	Senior notes ¹	1996	USD	397	7.00%	486
2027	EMTN	2015	CHF	250	0.75%	257
2030	Senior notes ¹	2000	USD	193	7.75%	262
2042	Senior notes	2012	USD	500	4.25%	490
Various	Payment undertaking agreements	various	USD	338	various	390
Total senior long-term debt as of 31 December 2017						4 171
Total senior long-term debt as of 31 December 2016						4 157

¹ Assumed in the acquisition of GE Insurance Solutions.

Subordinated long-term debt

Maturity	Instrument	Issued in	Currency	Nominal in millions	Interest rate	First call in	Book value in USD millions
2024	Subordinated contingent write-off loan note	2013	USD	750	6.38%	2019	778
2042	Subordinated fixed-to-floating rate loan note	2012	EUR	500	6.63%	2022	596
2044	Subordinated fixed rate resettable callable loan note	2014	USD	500	4.50%	2024	497
2045	Subordinated contingent write-off securities	2013	CHF	175	7.50%	2020	197
2057	Subordinated private placement (amortising, limited recourse)	2007	GBP	1 751	5.06%		2 370
	Subordinated perpetual loan note	2007	GBP	500	6.30%	2019	676
	Perpetual subordinated fixed-to-floating rate callable loan note	2015	EUR	750	2.60%	2025	863
Total subordinated long-term debt as of 31 December 2017						5 977	
Total subordinated long-term debt as of 31 December 2016						5 630	

Financial statements

Notes to the Group financial statements

Interest expense on long-term debt and contingent capital instruments

Interest expense on long-term debt for the years ended 31 December was as follows:

USD millions	2016	2017
Senior financial debt	121	114
Senior operational debt	10	11
Subordinated financial debt	179	166
Subordinated operational debt	122	114
Total	432	405

In addition to the above, interest expense on contingent capital instruments classified as equity was USD 68 million and USD 67 million for the years ended 31 December 2016 and 2017, respectively.

Long-term debt issued in 2017

No long-term debt was issued in the year ended 31 December 2017.

Perpetual subordinated debt facility established in 2017

In July 2017, Swiss Re Ltd established a subordinated debt facility with no fixed termination date. The facility allows Swiss Re Ltd to issue at any time subordinated fixed rate callable notes with a face value of up to USD 750 million, having a first optional redemption date of 15 August 2022 and additional optional redemption dates every five years thereafter. Swiss Re Ltd pays a fee of 2.77% per annum on the available commitment under the facility. Notes issued under the facility have a fixed coupon of 4.63% per annum until the first optional redemption date, which will be reset every five years to the prevailing five-year US Treasury rate plus the fixed-for-life spread of 2.76%.

In these financial statements, the facility fees are classified as interest expense. Notes, when issued under this facility, will be classified as subordinated debt. As of 31 December 2017, no notes have been issued under the facility.

Contingent capital instruments

In March 2012, Swiss Reinsurance Company Ltd issued a perpetual subordinated capital instrument with stock settlement. The instrument has a face value of USD 750 million, with a fixed coupon of 8.25% per annum until the first optional redemption date (1 September 2018).

The instrument may be converted, at the option of the issuer, into Swiss Re Ltd shares at any time through at market conversion using the retrospective five-day volume weighted average share price with a 3% discount or within six months following a solvency event at a pre-set floor price of USD 32. The instrument is referred to in these financial statements as "contingent capital instrument".

In February 2012, Swiss Reinsurance Company Ltd issued a contingent capital instrument accounted for as equity with a face value of CHF 320 million and a fixed coupon at a rate of 7.25% per annum. This capital instrument was redeemed on 1 September 2017.

12 Earnings per share

All of the Group's companies prepare statutory financial statements based on local laws and regulations. Most jurisdictions require reinsurers to maintain a minimum amount of capital in excess of the statutory definition of net assets or maintain certain minimum capital and surplus levels. In addition, some jurisdictions place certain restrictions on amounts that may be loaned or transferred to the parent company. The Group's ability to pay dividends may be restricted by these requirements.

Dividends are declared in Swiss francs. During the years ended 31 December 2016 and 2017, the Group paid dividends per share of CHF 4.60 and CHF 4.85, respectively.

Earnings per share for the years ended 31 December were as follows:

USD millions (except share data)	2016	2017
Basic earnings per share		
Net income	3 623	393
Non-controlling interests	3	5
Interest on contingent capital instruments ¹	-68	-67
Net income attributable to common shareholders	3 558	331
Weighted average common shares outstanding	331 767 651	320 811 238
Net income per share in USD	10.72	1.03
Net income per share in CHF²	10.55	1.02
Effect of dilutive securities		
Change in income available to common shares due to contingent capital instruments ¹	68	
Change in average number of shares due to contingent capital instruments	35 745 192	
Change in average number of shares due to employee options	1 768 217	514 803
Diluted earnings per share		
Net income assuming debt conversion and exercise of options	3 626	331
Weighted average common shares outstanding	369 281 060	321 326 041
Net income per share in USD	9.82	1.03
Net income per share in CHF²	9.66	1.01

¹ Please refer to Note 11 "Debt and contingent capital instruments".

² The translation from USD to CHF is shown for informational purposes only and has been calculated using the Group's average exchange rates.

At the 152nd Annual General Meeting held on 22 April 2016 and at the 153rd Annual General Meeting held on 21 April 2017, the Group's shareholders authorised the Group Board of Directors to repurchase up to a maximum CHF 1 billion purchase value of the Group's own shares through public share buy-back programmes for cancellation purposes prior to the 2017 and 2018 Annual General Meetings, respectively.

The buy-back programme prior to the 153rd Annual General Meeting was completed as of 9 February 2017. The total number of shares repurchased amounted to 10.6 million, of which 5.5 million and 5.1 million shares were repurchased as of 31 December 2016 and between 1 January and 9 February 2017, respectively. The 153rd Annual General Meeting resolved the cancellation of the repurchased 10.6 million shares by way of share capital reduction. The shares were cancelled as of 25 July 2017, after completion of the procedure in respect of a share capital reduction as set forth in Article 732 et seqq. of the Swiss Code of Obligations. As of 31 December 2017, 6.3 million shares were repurchased through the buy-back programme launched on 3 November 2017.

Net of tax expense effects from contingent capital instruments, totalling USD 67 million in 2017, and the potential impact of these instruments on the weighted average number of shares, of 31 642 628 shares, have not been included in the diluted earnings per share calculation because the impact of such an inclusion was antidilutive.

13 Commitments and contingent liabilities

Leasing commitments

As part of its normal business operations, the Group enters into a number of lease agreements. As of 31 December, such agreements, which are operating leases, total the following obligations for the next five years and thereafter:

USD millions	2017
2018	128
2019	118
2020	100
2021	64
2022	57
After 2022	324
Total operating lease commitments	791
Less minimum non-cancellable sublease rentals	21
Total net future minimum lease commitments	770

Minimum rentals for all operating leases (except those with terms of one month or less that were not renewed) for the years ended 31 December 2016 and 2017 were USD 76 million and USD 94 million, respectively. Sublease rental income for the years ended 31 December 2016 and 2017 was nil and USD 2 million, respectively.

Other commitments

As a participant in limited and other investment partnerships, the Group commits itself to making available certain amounts of investment funding, callable by the partnerships for periods of up to ten years. The total commitments remaining uncalled as of 31 December 2017 were USD 2 252 million.

In 2016, the Group entered into a real estate construction contract. Total commitments under the contract amount to USD 52 million over the next three years.

The Group enters into a number of contracts in the ordinary course of reinsurance and financial services business which, if the Group's credit rating and/or defined statutory measures decline to certain levels, would require the Group to post collateral or obtain guarantees. The contracts typically provide alternatives for recapture of the associated business.

Legal proceedings

In the normal course of business operations, the Group is involved in various claims, lawsuits and regulatory matters. In the opinion of management, the disposition of these matters is not expected to have a material adverse effect on the Group's business, consolidated financial position, results of operations or cash flows.

14 Variable interest entities

The Group enters into arrangements with variable interest entities (VIEs) in the normal course of business. The involvement ranges from being a passive investor to designing, structuring and managing the VIEs. The variable interests held by the Group arise primarily as a result of the Group's involvement in certain insurance-linked securitisations, life and health funding transactions, swaps in trusts, debt financing, investment, senior commercial mortgage and infrastructure loans as well as other entities, which meet the definition of a VIE.

When analysing whether the entity is a VIE, the Group mainly assesses if (1) the equity is sufficient to finance the entity's activities without additional subordinated financial support, (2) the equity holders have the right to make significant decisions affecting the entity's operations and (3) the holders of the voting rights substantively participate in the gains and losses of the entity.

When one of these criteria is not met, the entity is considered a VIE and is assessed for consolidation under the VIE section of the Consolidation Topic.

The party that has a controlling financial interest is called a primary beneficiary and consolidates the VIE. The party is deemed to have a controlling financial interest if it has both of the following:

- the power to direct the activities of the VIE that most significantly impact the entity's economic performance; and
- the obligation to absorb the entity's losses that could potentially be significant to the VIE or the right to receive benefits from the entity that could potentially be significant to the VIE.

For all its variable interests in VIEs, the Group assesses whether it has a controlling financial interest in these entities and, thus, is the primary beneficiary. The Group identifies the activities that most significantly impact the entity's performance and determines whether the Group has the power to direct those activities. In conducting the analysis, the Group considers the purpose, the design and the risks that the entity was designed to create and pass through to its variable interest holders. Additionally, the Group assesses if it has the obligation to absorb losses or if it has the right to receive benefits of the VIE that could potentially be significant to the entity. If both criteria are met, the Group has a controlling financial interest in the VIE and consolidates the entity.

The Group monitors changes to the facts and circumstances of the existing involvement with legal entities to determine whether they require reconsideration of the entity's designation as a VIE or voting interest entity. For VIEs, the Group reassesses regularly the primary beneficiary determination.

Insurance-linked securitisations

The insurance-linked securitisations transfer pre-existing insurance risk to investors through the issuance of insurance-linked securities. In insurance-linked securitisations, the securitisation vehicle assumes the insurance risk from a sponsor through insurance or derivative contracts. The securitisation vehicle generally retains the issuance proceeds as collateral, which consists of investment-grade securities. The Group does not have potentially significant variable interest in these vehicles and therefore is not a primary beneficiary.

Typically, the variable interests held by the Group arise through ownership of insurance-linked securities, in which case the Group's maximum loss equals the principal amount of the securities held by the Group.

Life and health funding vehicles

The Group participates in certain structured transactions that retrocede longevity and mortality risks to captive reinsurers with an aim to provide regulatory capital credit to a transaction sponsor through creation of funding notes by a separate funding vehicle which is generally considered a VIE. The Group's participation in these transactions is generally limited to providing contingent funding support via a financial contract with a funding vehicle, which represents a potentially significant variable interest in the funding vehicle. The Group does not have power to direct activities of the funding vehicles and therefore is not a primary beneficiary of the funding vehicles in these transactions. The Group's maximum exposure in these transactions equals either the total contract notional or outstanding balance of the funding notes issued by the vehicle, depending on the specific contractual arrangements.

Financial statements

Notes to the Group financial statements

Swaps in trusts

The Group provides interest rate and foreign exchange risk hedges to certain asset securitisation trusts which qualify as VIEs. As the Group's involvement is limited to interest rate and foreign exchange derivatives, it does not have power to direct any activities of the trusts and therefore does not qualify as primary beneficiary of any of these trusts. These activities are in run-off.

Debt financing vehicles

The Group consolidates a debt-financing vehicle created to collateralise reinsurance coverage provided by the Group. The Group manages the asset portfolio in the vehicle and absorbs the variability of the investment return of the vehicle's portfolio, thereby satisfying both criteria for a controlling financial interest: power over activities most significant to the vehicle's economic performance and significant economic interest.

Investment vehicles

The Group consolidates a real estate investment entity, which holds real estate backing annuities business. The Group is its primary beneficiary, because it has both power over the entity's investment decisions, as well as a significant variable interest in the entity.

The Group's variable interests in investment partnerships arise through ownership of the limited partner interests. Many investment partnerships are VIEs because the limited partners as a group lack kick-out or participating rights. The Group does not hold the general partner interest in the limited partnerships and therefore does not direct investment activities of the entity. Therefore, the Group lacks power over the relevant activities of the vehicles and, consequently, does not qualify as the primary beneficiary. The Group is exposed to losses when the values of the investments held by the investment vehicles decrease. The Group's maximum exposure to loss equals the Group's share of the investment.

The Group is a passive investor in structured securitisation vehicles issuing residential and commercial mortgage-backed securities (RMBS and CMBS, respectively) and other asset-backed securities (ABS). The Group's investments in RMBS, CMBS and other ABS are passive in nature and do not obligate the Group to provide any financial or other support to the issuer entities. By design, RMBS, CMBS and ABS securitisation entities are not adequately capitalised and therefore considered VIEs. The Group is not the primary beneficiary, because it does not have power to direct most significant activities. These investments are accounted for as available-for-sale as described in the investment note and not included in the tables below.

The Group consolidates an investment vehicle, because the Group holds the entire interest in the entity and makes investment decisions related to the entity. The investment vehicle is a VIE because it is structured as an umbrella company comprised of multiple sub-funds. The majority of the investments held in this vehicle are accounted for as available-for-sale and are disclosed in the investment note and not included in the tables below.

Investment vehicles for unit-linked business

Additionally, the Group invests on behalf of the policyholders as a passive investor in a variety of investment funds across various jurisdictions. By design, many of these funds meet a VIE definition. While the Group may have a potentially significant variable interest in some of these entities due to its share of the fund's total net assets, it never has power over the fund's investment decisions, or unilateral kick-out rights relative to the decision maker.

The Group is not exposed to losses in the aforementioned investment vehicles, as the investment risk is borne by the policyholder.

Senior commercial mortgage and infrastructure loans

The Group also invests in structured commercial mortgage and infrastructure loans, which are held for investment.

The commercial mortgage loans are made to non-recourse special purpose entities collateralised with commercial real estate. The entities are adequately capitalised and generally structured as voting interest entities. Occasionally, the borrower entities can be structured as limited partnerships where the limited partners do not have kick-out or participating rights, which results in the VIE designation.

The infrastructure loans are made to non-recourse special purpose entities collateralised with infrastructure project assets. Some borrower entities may have insufficient equity investment at risk, which results in the VIE designation.

The Group does not have power over the activities most significant to the aforementioned borrower entities designated as VIEs and therefore does not consolidate them.

The Group's maximum exposure to loss from its investments equals the loan outstanding amount.

Other

The Group consolidates a vehicle providing reinsurance to its members, because it serves as a decision maker over the entity's investment and underwriting activities, as well as provides retrocession for the majority of the vehicle's insurance risk and receives performance-based fees. Additionally, the Group is obligated to provide the vehicle with loans in case of a deficit. The vehicle is a VIE, primarily because its total equity investment at risk is insufficient and the members lack decision-making rights.

The Group did not provide financial or other support to any VIEs during 2017 that it was not previously contractually required to provide.

Financial statements

Notes to the Group financial statements

Consolidated VIEs

The following table shows the total assets and liabilities in the Group's balance sheet related to VIEs of which the Group is the primary beneficiary as of 31 December:

USD millions	2016	2017
Fixed income securities available-for-sale	3 715	3 974
Investment real estate	209	198
Short-term investments	128	62
Cash and cash equivalents	42	14
Accrued investment income	33	34
Premiums and other receivables	33	29
Deferred acquisition costs	9	4
Deferred tax assets	94	41
Other assets	12	15
Total assets	4 275	4 371
Unpaid claims and claim adjustment expenses	65	84
Liabilities for life and health policy benefits		1
Unearned premiums	25	12
Reinsurance balances payable	6	17
Deferred and other non-current tax liabilities	213	133
Accrued expenses and other liabilities	178	174
Long-term debt	2 270	2 369
Total liabilities	2 757	2 790

The assets of the consolidated VIEs may only be used to settle obligations of these VIEs and to settle any investors' ownership liquidation requests. There is no recourse to the Group for the consolidated VIEs' liabilities. The assets of the consolidated VIEs are not available to the Group's creditors.

Non-consolidated VIEs

The following table shows the total assets and liabilities on the Group's balance sheet related to VIEs in which the Group held a variable interest but was not the primary beneficiary as of 31 December:

USD millions	2016	2017
Fixed income securities available-for-sale	525	587
Equity securities available-for-sale	492	700
Policy loans, mortgages and other loans	876	1 035
Other invested assets	2 387	1 831
Investments for unit-linked and with-profit business	8 770	9 223
Premiums and other receivables	3	
Total assets	13 053	13 376
Accrued expenses and other liabilities	78	67
Total liabilities	78	67

The following table shows the Group's assets, liabilities and maximum exposure to loss related to VIEs in which the Group held a variable interest but was not the primary beneficiary as of 31 December:

USD millions	Total assets	Total liabilities	2016 Maximum exposure to loss ¹	Total assets	Total liabilities	2017 Maximum exposure to loss ¹
Insurance-linked securitisations	336		331	311		314
Life and health funding vehicles	2	1	1 948	27	1	2 052
Swaps in trusts	164	77	- ²	25	66	- ²
Debt financing vehicles	302		22			
Investment vehicles	2 423		2 424	2 493		2 494
Investment vehicles for unit-linked business	8 770			9 223		
Senior commercial mortgage and infrastructure loans	1 053		1 053	1 297		1 297
Other	3		3			
Total	13 053	78	-²	13 376	67	-²

¹ Maximum exposure to loss is the loss the Group would absorb from a variable interest in a VIE in the event that all of the assets of the VIE are deemed worthless.

² The maximum exposure to loss for swaps in trusts cannot be meaningfully quantified due to their derivative character.

The assets and liabilities for the swaps in trusts represent the positive and negative fair values of the derivatives the Group has entered into with the trusts.

15 Subsequent events

Investment by MS&AD Insurance Group Holdings Inc into ReAssure

In October 2017, Swiss Re reached an agreement with MS&AD Insurance Group Holdings Inc (MS&AD) for an investment of up to GBP 800 million into ReAssure, for up to a three-year period from closing and with a maximum shareholding of 15%.

On 23 January 2018, after ReAssure obtained regulatory approval for the transaction, MS&AD acquired a 5% stake in ReAssure (via a parent company) for GBP 175 million and subscribed for additional shares of GBP 330 million. These two investments now result in a total shareholding of ReAssure by MS&AD of 13.2%.

The Group financial statements and related notes presented in this report are not impacted.

Legal and General life policies

Effective 1 January 2018, ReAssure entered into an agreement with Legal and General Assurance Society Limited to reinsure 1.1 million policies for GBP 650 million. It is intended that the reinsured policies will be transferred to ReAssure at a future date by way of a Part VII transfer under the Financial Services and Markets Act 2000, subject to regulatory approval.

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Cautionary note on forward-looking statements

Certain statements and illustrations contained herein are forward-looking. These statements (including as to plans, objectives, targets, and trends) and illustrations provide current expectations of future events based on certain assumptions and include any statement that does not directly relate to a historical fact or current fact.

Forward-looking statements typically are identified by words or phrases such as “anticipate”, “assume”, “believe”, “continue”, “estimate”, “expect”, “foresee”, “intend”, “may increase”, “may fluctuate” and similar expressions, or by future or conditional verbs such as “will”, “should”, “would” and “could”. These forward-looking statements involve known and unknown risks, uncertainties and other factors, which may cause the Group’s actual results of operations, financial condition, solvency ratios, capital or liquidity positions or prospects to be materially different from any future results of operations, financial condition, solvency ratios, capital or liquidity positions or prospects expressed or implied by such statements or cause Swiss Re to not achieve its published targets. Such factors include, among others:

- the frequency, severity and development of insured claim events, particularly natural catastrophes, man-made disasters, pandemics, acts of terrorism and acts of war;
- mortality, morbidity and longevity experience;
- the cyclical nature of the insurance and reinsurance sectors;
- instability affecting the global financial system;
- deterioration in global economic conditions;
- the effect of market conditions, including the global equity and credit markets, and the level and volatility of equity prices, interest rates, credit spreads, currency values and other market indices, on the Group’s investment assets;
- changes in the Group’s investment result as a result of changes in the Group’s investment policy or the changed composition of the Group’s investment assets, and the impact of the timing of any such changes relative to changes in market conditions;
- the Group’s ability to maintain sufficient liquidity and access to capital markets, including sufficient liquidity to cover potential recapture of reinsurance agreements, early calls of debt or debt-like arrangements and collateral calls due to actual or perceived deterioration of the Group’s financial strength or otherwise;

- any inability to realise amounts on sales of securities on the Group's balance sheet equivalent to their values recorded for accounting purposes;
- changes in legislation and regulation, and the interpretations thereof by regulators and courts, affecting us or the Group's ceding companies, including as a result of shifts away from multilateral approaches to regulation of global operations;
- the outcome of tax audits, the ability to realise tax loss carryforwards, the ability to realise deferred tax assets (including by reason of the mix of earnings in a jurisdiction or deemed change of control), which could negatively impact future earnings, and the overall impact of changes in tax regimes on business models;
- failure of the Group's hedging arrangements to be effective;
- the lowering or loss of one of the financial strength or other ratings of one or more Group companies, and developments adversely affecting the Group's ability to achieve improved ratings;
- uncertainties in estimating reserves;
- policy renewal and lapse rates;
- uncertainties in estimating future claims for purposes of financial reporting, particularly with respect to large natural catastrophes and certain large man-made losses, as significant uncertainties may be involved in estimating losses from such events and preliminary estimates may be subject to change as new information becomes available;
- extraordinary events affecting the Group's clients and other counterparties, such as bankruptcies, liquidations and other credit-related events;
- legal actions or regulatory investigations or actions, including those in respect of industry requirements or business conduct rules of general applicability;
- changes in accounting standards;
- significant investments, acquisitions or dispositions, and any delays, unexpected costs, lower-than-expected benefits, or other issues experienced in connection with any such transactions;
- changing levels of competition, including from new entrants into the market; and
- operational factors, including the efficacy of risk management and other internal procedures in managing the foregoing risks and the ability to manage cybersecurity risks.

These factors are not exhaustive. The Group operates in a continually changing environment and new risks emerge continually. Readers are cautioned not to place undue reliance on forward-looking statements. Swiss Re undertakes no obligation to publicly revise or update any forward-looking statements, whether as a result of new information, future events or otherwise.

This communication is not intended to be a recommendation to buy, sell or hold securities and does not constitute an offer for the sale of, or the solicitation of an offer to buy, securities in any jurisdiction, including the United States. Any such offer will only be made by means of a prospectus or offering memorandum, and in compliance with applicable securities laws.

Note on risk factors

General impact of adverse market conditions

The operations of Swiss Re Ltd ("Swiss Re") and its subsidiaries (collectively, the "Group") as well as its investment returns are subject to market volatility and macro-economic factors, which are outside of the Group's control and are often inter-related.

Growth forecasts among the principal global economies remain uneven and uncertain in an environment of elevated political uncertainty. The planned withdrawal of the United Kingdom from the EU has created uncertainty not only for the United Kingdom but for the rest of the EU, and negotiations over withdrawal will likely continue to contribute to volatility and pose significant challenges for the EU and the United Kingdom. The long-term effects of a withdrawal of the United Kingdom from the EU will depend in part on any agreements the United Kingdom makes to retain access to the single market within the European Economic Area ("EEA") following such withdrawal, the scope and nature of which currently remain highly uncertain. As China's economy undergoes structural changes, recent near-term growth stabilisation may be reversed in the context of a broader economic slowdown were it to occur. The foregoing may be exacerbated by geopolitical tensions, fears over security and migration, and uncertainty created generally by the policy pronouncements that have been, and may in the coming months be, announced by the US administration on a range of trade, security, foreign policy, environmental protection and other issues having global implications, as well as by the consequences of the implementation of such policy pronouncements.

With fewer options available to policymakers and concerns generally over the absence of realistic confidence-building measures, and with heightened risk that volatility or depressed conditions in one sector, one market, one country or one region could have far broader implications, volatility can be expected to continue. Further adverse developments or the continuation of adverse trends that, in turn, have a negative impact on financial markets and economic conditions could limit the Group's ability to access the capital markets and bank funding markets, could adversely affect the ability of counterparties to meet their obligations to the Group and could adversely affect the confidence of the ultimate buyers of insurance and reinsurance.

Any of the foregoing factors, developments and trends could have an adverse effect on the Group's investment results, which in the current low interest rate environment and soft insurance cycle could have a material adverse effect on the Group's overall results, make it difficult to determine the value of certain assets in the Group's portfolio, make it more difficult to acquire suitable investments to meet its risk and return criteria and otherwise have a material adverse effect on its business and operations.

Regulatory changes

Swiss Re and its subsidiaries operate in a highly regulated environment. The regulatory regimes to which members of the Group are subject have changed significantly in recent years and are expected to continue to evolve. During this period, there has been a noticeable trend to extend the scope of reforms and oversight, which initially targeted banks, beyond such institutions to cover insurance and reinsurance operations.

While some regulation is national in scope, the global nature of the Group's business means that its operations are subject in effect to a patchwork of global, national and regional standards. Swiss Re and its subsidiaries are subject to group supervision and Swiss Re's subsidiaries are also subject to applicable regulation in each of the jurisdictions in which they conduct business, particularly Switzerland, the United States, the United Kingdom, Luxembourg and Germany. The Group is subject to the Swiss Solvency Test and, through its legal entities organised in the EEA, Solvency II.

While certain regulatory processes are designed in part to foster convergence and achieve recognition of group supervisory schemes, the Group continues to face risks of extra-territorial application of regulations, particularly as to group supervision and group solvency requirements. In addition, regulators in jurisdictions beyond those where the Group has core operations increasingly are playing a far greater oversight role, requiring more localised resources and, despite a predominantly local focus, also raise issues of a cross-border nature. Furthermore, evolving regulatory schemes and requirements may be inconsistent or may conflict with each other, thereby subjecting the Group, particularly in light of the increasing focus on legal entities in isolation, to higher compliance and legal costs, as well as the possibility of higher operational, capital and liquidity costs. The effect of these trends could be exacerbated to the extent that the current political environment results in a return to more bilateral, and less harmonised, cross-border regulatory efforts.

While in recent years there has been an evolving focus on classifying certain insurance companies as systemically important, it is unclear whether and, if so, in what form reforms will be enacted. The Group could be designated as a global systemically important insurer ("G-SIIs") by the Financial Stability Board, or as a systemically important non-bank financial company by the Financial Stability Oversight Council ("FSOC") in the United States. The International Association of Insurance Supervisors, an international body that represents insurance regulators and supervisors, has published and since refined the methodology for identifying G-SIIs. Were the Group to be designated as a G-SII, it could be subject to one or both of the resulting regimes, including capital standards (the basic capital requirement for G-SIIs), which would have various implications for the Group, including additional compliance costs and reporting obligations as well as heightened regulatory scrutiny in various jurisdictions. In addition, the Group ultimately will be subject to oversight of its Swiss regulator in respect of recovery and resolution planning.

The Group cannot predict which legislative and/or regulatory initiatives will be enacted or promulgated, what the scope and content of these initiatives ultimately will be, when they will be effective and what the implications will be for the industry, in general, and for the Group, in particular. The Group may be subject to changes in views of its regulators in respect of the models that the Group uses for capital and solvency purposes, and could be adversely affected if, for example, it is required to use standard models rather than internal models. Generally, legal and regulatory changes could have a material impact on the Group's business. Uncertainty regarding the future relationship between the UK and the EU could also impact the legislative and/or regulatory regimes to which the Group is subject, both in the United Kingdom and in the EEA.

In addition, regulatory changes could occur in areas of broader application, such as competition policy and tax laws. Changes in tax laws, for example, could increase the taxes the Group pays, the attractiveness of products offered by the Group, the Group's investment activities and the value of deferred tax assets. Any number of these changes could apply to the Group and its operations. Recently enacted changes to the US tax regime is prompting us to consider modifications to our operating model for our US business. These changes, or inconsistencies between the various regimes that apply to the Group, could increase the costs of doing business (including due to related capital requirements), reduce access to liquidity, limit the scope of current or future business or affect the competitive balance, or could make reinsurance less attractive to primary insurers.

Market risk

Volatility and disruption in the global financial markets could expose the Group to significant financial and capital markets risk, including changes in interest rates, credit spreads, equity prices and foreign currency exchange rates, which may adversely impact the Group's financial condition, results of operations, liquidity and capital position. The Group's exposure to interest rate risk is primarily related to the market price and cash flow variability associated with changes in interest rates. In general, a low interest rate environment, such as the one experienced in recent years, poses significant challenges to the insurance and reinsurance industries, with earnings capacity under stress unless lower investment returns from fixed income assets can be offset by lower combined ratios or higher returns from other asset classes. Exposure to credit spreads primarily relates to market price and cash flow variability associated with changes in credit spreads. When credit spreads widen, the net unrealised loss position of the Group's investment portfolio can increase, as could other-than-temporary impairments.

The Group is exposed to changes in the level and volatility of equity prices, as they affect the value of equity securities themselves as well as the value of securities or instruments that derive their value from a particular equity security, a basket of equity securities or a stock index. The Group is also subject to equity price risk to the extent that the values of life-related benefits under certain products and life contracts, most notably variable annuity business, are tied to financial market values; to the extent market values fall, the financial exposure on guarantees related to these contracts would increase to the extent this exposure is not hedged. While the Group has an extensive hedging programme covering its existing variable annuity business that it believes is sufficient, certain risks cannot be hedged, including actuarial risks, basis risk and correlation risk. Exposure to foreign exchange risk arises from exposures to changes in spot prices and forward prices as well as to volatile movements in exchange rates.

These risks can have a significant effect on investment returns and market values of securities positions, which in turn may affect both the Group's results of operations and financial condition. The Group continues to focus on asset-liability management for its investment portfolio, but pursuing even this strategy has its risks – including possible mismatch – that in turn can lead to reinvestment risk. The Group seeks to manage the risks inherent in its investment portfolio by repositioning the portfolio from time to time, as needed, and to reduce risk and fluctuations through the use of hedges and other risk management tools.

Credit risk

If the credit markets were again to deteriorate and further asset classes were to be impacted, the Group could experience losses. Changes in the market value of the underlying securities and other factors impacting their price could give rise to market value losses. If the credit markets were to deteriorate again, the Group could also face write-downs in other areas of its portfolio, including other structured instruments, and the Group and its counterparties could face difficulties in valuing credit-related instruments. Differences in opinion with respect to valuations of credit-related instruments could result in legal disputes among the Group and its counterparties as to their respective obligations, the outcomes of which are difficult to predict and could be material.

The Group is also subject to credit and other risks in its credit business, including reliance on banks that underwrite and monitor facilities in which the Group participates and potential default by borrowers under those facilities.

Liquidity risks

The Group's business requires, and its clients expect, that it has sufficient capital and sufficient liquidity to meet its re/insurance obligations, and that this would continue to be the case following the occurrence of any foreseeable event or series of events, including extreme catastrophes, that would trigger insurance or reinsurance coverage obligations. The Group's uses of funds include obligations arising in its insurance and reinsurance businesses (including claims and other payments as well as insurance provision repayments due to portfolio transfers, securitisations and commutations), which may include large and unpredictable claims (including catastrophe claims), funding of capital requirements and operating costs, payment of principal and interest on outstanding indebtedness and funding of acquisitions. The Group also has unfunded capital commitments in its private equity and hedge fund investments, which could result in funding obligations at a time when it is subject to liquidity constraints. In addition, the Group has potential collateral requirements in connection with a number of reinsurance arrangements, the amounts of which may be material and the meeting of which could require the Group to liquidate cash equivalents or other securities.

The Group manages liquidity and funding risks by focusing on the liquidity stress that is likely to result from extreme capital markets scenarios or from extreme loss events or combinations of the two. Generally, the ability to meet liquidity needs could be adversely impacted by factors that the Group cannot control, such as market dislocations or interruptions, adverse economic conditions, severe disruption in the financial and worldwide credit markets and the related increased constraints on the availability of credit; changes in interest rates, foreign exchange rates and credit spreads; or by perceptions among market participants of the extent of the Group's liquidity needs.

Unexpected liquidity needs (including to meet collateral calls) could require the Group to incur indebtedness or liquidate investments or other assets. The Group may not be able to secure new sources of liquidity or funding, should projected or actual liquidity fall below levels it requires. The ability to meet liquidity needs through asset sales may be constrained by market conditions and the related stress on valuations, and through third-party funding may be limited by constraints on the general availability of credit and willingness of lenders to lend. In addition, the Group's ability to meet liquidity needs may also be constrained by regulatory requirements that require regulated entities to maintain or increase regulatory capital, or that restrict intra-group transactions, the timing of dividend payments from subsidiaries or the fact that certain assets may be encumbered or otherwise non-tradable. Failure to meet covenants in lending arrangements could give rise to collateral-posting or defaults, and further constrain access to liquidity. Finally, any adverse ratings action could trigger a need for further liquidity (for example, by triggering termination provisions or collateral delivery requirements in contracts to which the Group is a party) at a time when the Group's ability to obtain liquidity from external sources is limited by such ratings action.

Counterparty risks

The Group is exposed to the risk of defaults, or concerns about defaults, by its counterparties. Securities trading counterparties, counterparties under swaps and other derivative contracts, and financial intermediaries may default on their obligations due to bankruptcy, insolvency, lack of liquidity, adverse economic conditions, operational failure, fraud or other reasons, which could have a material adverse effect on the Group.

The Group could also be adversely affected by the insolvency of, or other credit constraints affecting, counterparties in its insurance and reinsurance operations. Moreover, the Group could be adversely affected by liquidity issues at ceding companies or at third parties to whom the Group has retroceded risk, and such risk could be exacerbated to the extent any such exposures are concentrated.

Risks relating to credit rating downgrades

Ratings are an important factor in establishing the competitive position of reinsurance companies. Third-party rating agencies assess and rate the financial strength of reinsurers and insurers. These ratings are intended to measure a company's ability to repay its obligations and are based upon criteria established by the rating agencies. Ratings may be revised downward or revoked at the sole discretion of the rating agencies.

The Group's ratings reflect the current opinion of the relevant rating agencies. One or more of its ratings could be downgraded or withdrawn in the future, and market conditions could increase the risk of downgrade. Rating agencies may increase the frequency and scope of ratings reviews, revise their criteria or take other actions that may negatively impact the Group's ratings. In addition, changes to the process or methodology of issuing ratings, or the occurrence of events or developments affecting the Group, could make it more difficult for the Group to achieve improved ratings which it would otherwise have expected.

As claims paying and financial strength ratings are key factors in establishing the competitive position of reinsurers, a decline in ratings alone could make reinsurance provided by the Group less attractive to clients relative to reinsurance from competitors with similar or stronger ratings. A decline in ratings could also cause the loss of clients who are required by policy or regulation to purchase reinsurance only from reinsurers with certain ratings. Certain larger reinsurance contracts contain terms that would allow the ceding companies to cancel the contract if the Group's ratings or those of its subsidiaries are downgraded beyond a certain threshold. Moreover, a decline in ratings could impact the availability and terms of unsecured financing and obligate the Group to provide collateral or other guarantees in the course of its business or trigger early termination of funding arrangements, potentially resulting in a need for additional liquidity. As a ratings decline could also have a material adverse impact on the Group's costs of borrowing or ability to access the capital markets, the adverse implications of a downgrade could be more severe. These same factors could also impact the Group's insurance business.

Legal and regulatory risks

In the ordinary course of business, the Group is involved in lawsuits, arbitrations and other formal and informal dispute resolution procedures, the outcomes of which determine rights and obligations under insurance, reinsurance and other contractual agreements. From time to time, the Group may institute, or be named as a defendant in, legal proceedings, and the Group may be a claimant or respondent in arbitration proceedings. These proceedings could involve coverage or other disputes with ceding companies, disputes with parties to which the Group transfers risk under reinsurance arrangements, disputes with other counterparties or other matters. The Group cannot predict the outcome of any of the foregoing, which could be material for the Group.

The Group is also involved, from time to time, in investigations and regulatory proceedings, which could result in adverse judgments, settlements, fines and other outcomes. The number of these investigations and proceedings involving the financial services industry has increased in recent years, and the potential scope of these investigations and proceedings has also increased, not only in respect of matters covered by the Group's direct regulators, but also in respect of compliance with broader business conduct rules, including those in respect of market abuse, bribery, money laundering, trade sanctions and data protection and privacy. The Group also is subject to audits and challenges from time to time by tax authorities, which could result in increases in tax costs, changes to internal structures and interest and penalties. Tax authorities may also actively pursue additional taxes based on retroactive changes to tax laws. The Group could be subject to risks arising from alleged, or actual, violations of any of the foregoing, and could also be subject to risks arising from potential employee misconduct, including non-compliance with internal policies and procedures and malfeasance, such as undertaking or facilitating cyber attacks on internal systems. Substantial legal liability could materially adversely affect the Group's business, financial condition or results of operations or could cause significant reputational harm, which could seriously affect its business.

Insurance, operational and other risks

As part of the Group's ordinary course operations, the Group is subject to a variety of risks, including risks that reserves may not adequately cover future claims and benefits; risks that catastrophic events (including hurricanes, windstorms, floods, earthquakes, acts of terrorism, man-made disasters such as industrial accidents, explosions, and fires, and pandemics) may expose the Group to unexpected large losses (and related uncertainties in estimating future claims in respect of such events); changes in the insurance industry that affect ceding companies, particularly those that further increase their sensitivity to counterparty risk; competitive conditions (including as a result of consolidation and the availability of significant levels of alternative capacity); cyclical nature of the industry; risks related to emerging claims and coverage issues; macro developments giving rise to emerging risks, such as climate change and technological developments (including greater exposure to cyber risks, which could have a range of consequences from operational disruption, to loss of proprietary or customer data, to greater regulatory burdens and potential liability); risks arising from the Group's dependence on policies, procedures and expertise of ceding companies; risks related to investments in emerging markets; and risks related to the failure of, or attacks directed at, the Group's operational systems and infrastructure, including its information technology networks and systems. Any of the foregoing, as well as the occurrence of future risks that the Group's risk management procedures fail to identify or anticipate, could have a material adverse effect on the Group, and could also give rise to reputational risk.

Use of models; accounting matters

The Group is subject to risks relating to the preparation of estimates and assumptions that management uses, including, as part of its risk models as well as those that affect the reported amounts of assets, liabilities, revenues and expenses in the Group's financial statements, including assumed and ceded business. For example, the Group estimates premiums pending receipt of actual data from ceding companies, which actual data could deviate from the estimates. In addition, particularly with respect to large natural catastrophes, it may be difficult to estimate losses, and preliminary estimates may be subject to a high degree of uncertainty and change as new information becomes available. Deterioration in market conditions could have an adverse impact on assumptions used for financial reporting purposes, which could affect possible impairment of present value of future profits, fair value of assets and liabilities, deferred acquisition costs or goodwill. Moreover, regulators could require the use of standard models instead of permitting the use of internal models. To the extent that management's estimates or assumptions prove to be incorrect, it could have a material impact on underwriting results (in the case of risk models) or on reported financial condition or results of operations, and such impact could be material.

The Group's results may be impacted by changes in accounting standards, or changes in the interpretation of accounting standards. Changes in accounting standards could impact future reported results or require restatement of past reported results. The Group's results may also be impacted if regulatory authorities take issue with any conclusions the Group may reach in respect of accounting matters.

The Group uses non-GAAP financial measures in its external financial reporting, including in this report. These measures are not prepared in accordance with US GAAP or any other comprehensive set of accounting rules or principles, and should not be viewed as substitutes for measures prepared in accordance with US GAAP. Moreover, these may be different from, or otherwise inconsistent with, non-GAAP financial measures used by other companies. These measures have inherent limitations, are not required to be uniformly applied and are not audited.

The Group includes, on an annual basis, in its annual report a section in respect of its results, including financial statements, prepared in accordance with the Group's proprietary economic value management ("EVM") principles ("EVM section"). Financial information included in the EVM section contains non-GAAP financial measures. The EVM principles differ significantly from US GAAP and, accordingly, the Group's results prepared in accordance with US GAAP will differ from its EVM results, and those differences could be material. The Group's annual EVM results can be more volatile than the US GAAP results because, among other things, assets and liabilities are measured on a market-consistent basis, profit recognition on new contracts is recognised at inception rather than over the life time of the contract, and life and health actuarial assumptions are on a best estimate basis as opposed to generally being locked-in. The Group's EVM financial statements should not be viewed as a substitute for the Group's US GAAP financial statements.

Risks related to the Swiss Re corporate structure

Swiss Re is a holding company, a legal entity separate and distinct from its subsidiaries, including Swiss Reinsurance Company Ltd. As a holding company with no operations of its own, Swiss Re is dependent upon dividends and other payments from Swiss Reinsurance Company Ltd and its other principal operating subsidiaries. The Group expects that, over time, its structure will continue to evolve, and in the future it may elect again (having accepted an equity investment within its Life Capital Business Unit from a third party) to partner with minority investors in or within one or more of the Group's Business Units or sub-groups within its Business Units, which could alter historical approaches taken in respect of capital, liquidity, funding and/or dividends, as well as other governance matters, including strategy for such Business Unit or sub-group.

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Corporate calendar

4 April 2018

Investors' Day in Zurich

20 April 2018

154th Annual General Meeting

4 May 2018

First quarter 2018 key financial data

3 August 2018

Half-year 2018 results

1 November 2018

Nine months 2018 key financial data

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