Swiss Re Corporate Solutions Ltd

Half-Year 2019 Report

Content

Income statement

For the six months ended 30 June

USD millions	Note	2018	2019
Revenues			
Gross premiums written	3	2 043	**2 201**
Net premiums written	3	1 713	**1 831**
Change in unearned premiums		205	**232**
Premiums earned	3	1 918	**2 063**
Net investment income	6	102	**109**
Net realised investment gains/losses[1]	6		**77**
Other revenues		1	**1**
Total revenues		2 021	**2 250**
Expenses			
Claims and claim adjustment expenses	3	–1 289	**–2 031**
Acquisition costs	3	–298	**–313**
Operating expenses		–389	**–432**
Total expenses before interest expenses		–1 976	**–2 776**
Income/loss before interest and income tax expense/benefit		45	**–526**
Interest expenses		–12	**–20**
Income/loss before income tax expense/benefit		33	**–546**
Income tax expense/benefit		–3	**115**
Net income/loss before attribution of non-controlling interests		30	**–431**
Income/loss attributable to non-controlling interests		2	**4**
Net income/loss attributable to common shareholder		32	**–427**

[1] Total impairments for the six months ended 30 June 2018 and 2019 were nil.

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

Statement of comprehensive income

For the six months ended 30 June

USD millions	2018	2019
Net income/loss before attribution of non-controlling interests	30	**–431**
Other comprehensive income, net of tax:		
Change in net unrealised investment gains/losses	–99	**186**
Change in foreign currency translation	–36	**14**
Other comprehensive income attributable to non-controlling interests	–16	**2**
Total comprehensive income before attribution of non-controlling interests	–121	**–229**
Comprehensive income attributable to non-controlling interests	18	**2**
Total comprehensive income attributable to common shareholder	–103	**–227**

Reclassification out of accumulated other comprehensive income

For the six months ended 30 June

2018 USD millions	Net unrealised investment gains/losses[1]	Foreign currency translation	Accumulated other comprehensive income
Balance as of 1 January	22	12	34
Impact of Accounting Standards Updates[2]	–7	3	–4
Change during the period	–142	–25	–167
Amounts reclassified out of accumulated other comprehensive income	17		17
Tax	26	–11	15
Balance as of period end	–84	–21	–105

2019 USD millions	Net unrealised investment gains/losses[1]	Foreign currency translation	**Accumulated other comprehensive income**
Balance as of 1 January	–60	–35	**–95**
Change during the period	250	14	**264**
Amounts reclassified out of accumulated other comprehensive income	–12		**–12**
Tax	–52		**–52**
Balance as of period end	**126**	**–21**	**105**

[1] Reclassification adjustment included in net income is presented in "Net realised investment gains/losses".
[2] Impact of ASU 2018-02 and ASU 2016-01. Please refer to the SRCS 2018 Annual Report for more details.

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

Balance sheet

Assets

USD millions	Note	31.12.2018	30.06.2019
Investments	6,7,8		
Fixed income securities, available-for-sale (including 1238 in 2018 and 1283 in 2019 subject to securities lending and repurchase agreements) (amortised cost: 2018: 6 314; 2019: 5 826)		6 264	**5 932**
Equity securities, at fair value through earnings (including 73 in 2018 and 35 in 2019 subject to securities lending and repurchase agreements)		180	**199**
Short-term investments (including 84 in 2018 and 234 in 2019 subject to securities lending and repurchase agreements)		393	**761**
Other invested assets		2 066	**2 155**
Total investments		8 903	**9 047**
Cash and cash equivalents (including 244 in 2018 and 334 in 2019 subject to securities lending)		763	**735**
Accrued investment income		44	**44**
Premiums and other receivables		2 321	**2 591**
Reinsurance recoverable on unpaid claims		5 486	**5 638**
Funds held by ceding companies		140	**158**
Deferred acquisition costs	5	488	**451**
Goodwill		206	**207**
Income taxes recoverable		65	**69**
Deferred tax assets		566	**732**
Other assets		908	**1 331**
Total assets		19 890	**21 003**

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

Liabilities and equity

USD millions	Note	31.12.2018	30.06.2019
Liabilities			
Unpaid claims and claim adjustment expenses	4	11 929	**12 564**
Liabilities for life and health policy benefits		501	**604**
Unearned premiums		3 320	**3 202**
Funds held under reinsurance treaties		380	**191**
Reinsurance balances payable		116	**432**
Income taxes payable		23	**22**
Deferred and other non-current tax liabilities		256	**323**
Accrued expenses and other liabilities		549	**475**
Long-term debt	9	798	**798**
Total liabilities		17 872	**18 611**
Equity			
Common shares, CHF 1 000 par value 2018: 100 000; 2019: 100 000 shares authorised and issued		119	**119**
Additional paid-in capital		1 665	**2 268**
Accumulated other comprehensive income:			
Net unrealised investment gains/losses, net of tax		–60	**126**
Foreign currency translation, net of tax		–35	**–21**
Total accumulated other comprehensive income		–95	**105**
Retained earnings		186	**–241**
Shareholder's equity		1 875	**2 251**
Non-controlling interests		143	**141**
Total equity		2 018	**2 392**
Total liabilities and equity		19 890	**21 003**

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

Statement of shareholder's equity

For the twelve months ended 31 December and the six months ended 30 June

USD millions	2018	2019
Common shares		
Balance as of 1 January	119	**119**
Issue of common shares		
Balance as of period end	119	**119**
Additional paid-in capital		
Balance as of 1 January	1 719	**1 665**
Capital contribution received from parent		**600**
Dividends on common shares	–50	
Share-based compensation	–4	**3**
Balance as of period end	1 665	**2 268**
Net unrealised investment gains/losses, net of tax		
Balance as of 1 January	22	**–60**
Impact of ASU 2018-02[1]	1	
Impact of ASU 2016-01[1]	–8	
Changes during the period	–75	**186**
Balance as of period end	–60	**126**
Foreign currency translation, net of tax		
Balance as of 1 January	12	**–35**
Impact of ASU 2018-02[1]	3	
Changes during the period	–50	**14**
Balance as of period end	–35	**–21**
Retained earnings		
Balance as of 1 January	637	**186**
Transactions under common control	–8	
Net income/loss attributable to common shareholder	–447	**–427**
Impact of ASU 2018-02[1]	–4	
Impact of ASU 2016-01[1]	8	
Balance as of period end	186	**–241**
Shareholder's equity	1 875	**2 251**
Non-controlling interests		
Balance as of 1 January	169	**143**
Income/ loss attributable to non-controlling interests	–4	**–4**
Other comprehensive income attributable to non-controlling interests		
Change in foreign currency translation	–20	**3**
Other	–2	**–1**
Balance as of period end	143	**141**
Total equity	2 018	**2 392**

[1] Impact of Accounting Standards Update. Please refer to the SRCS 2018 Annual Report for more details.

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

Statement of cash flows

For the six months ended 30 June

USD millions	2018	2019
Cash flows from operating activities		
Net income/loss attributable to common shareholder	32	**–427**
Add net income/loss attributable to non-controlling interests	–2	**–4**
Adjustments to reconcile net income to net cash provided/used by operating activities:		
Depreciation, amortisation and other non-cash items	29	**25**
Net realised investment gains/losses		**–77**
Income from equity-accounted investees, net of dividends received	–25	**–21**
Change in:		
Technical provisions and other reinsurance assets and liabilities, net	–200	**563**
Funds held by ceding companies and under reinsurance treaties	–49	**–208**
Reinsurance recoverable on unpaid claims	126	**–146**
Other assets and liabilities, net	–41	**–214**
Income taxes payable/recoverable	–22	**–143**
Trading positions, net	–20	**–33**
Net cash provided/used by operating activities	–172	**–685**
Cash flows from investing activities		
Fixed income securities:		
Sales	1 479	**1 274**
Maturities	152	**376**
Purchases	–1 384	**–1 257**
Net purchases/sales/maturities of short-term investments	–61	**–362**
Equity securities:		
Sales	106	**80**
Purchases	–81	**–71**
Securities purchased/sold under agreement to resell/repurchase, net	78	**16**
Net purchases/sales/maturities of other investments	–6	**1**
Net cash provided/used by investing activities	283	**57**
Cash flows from financing activities		
Capital contribution received from parent		**600**
Dividends paid to parent	–50	
Net cash provided/used by financing activities	–50	**600**
Total net cash provided/used	61	**–28**
Effect of foreign currency translation	–6	
Change in cash and cash equivalents	55	**–28**
Cash and cash equivalents as of 1 January	621	**763**
Cash and cash equivalents as of 30 June	676	**735**

Interest paid was nil and USD 9 million for the six months ended 30 June 2018 and 2019, respectively. Tax paid was USD 25 million and USD 28 million for the six months ended 30 June 2018 and 2019, respectively.

Cash and cash equivalents include restricted cash and restricted cash equivalents, for instance pledged cash and cash equivalents (please refer to Note 6 Investments).

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 Corporate Solutions Group, which is headquartered in Zurich, Switzerland, comprises Swiss Re Corporate Solutions Ltd (the parent company, referred to as "SRCS") and its subsidiaries (collectively, the "Group"). The Group provides a wide range of traditional and non-traditional commercial insurance products and risk transfer solutions through a network of offices around the globe.

SRCS is a wholly owned subsidiary of Swiss Re Ltd. Swiss Re Ltd is the ultimate parent company of the Swiss Re Group, which consists of four business segments: Property & Casualty Reinsurance, Life & Health Reinsurance, Corporate Solutions and Life Capital. The presentation of each segment's balance sheet is closely aligned with the segment legal entity structure.

Basis of presentation

The accompanying 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 year-end balance sheet data presented was derived from audited financial statements. These interim 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 Group's audited financial statements for the year ended 31 December 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 disclosures, including contingent assets and liabilities. The Group's liabilities for unpaid claims and claim adjustment expenses 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 analysis, 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 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 30 June 2019, 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 30 July 2019. This is the date on which the financial statements are available to be issued.

Adoption of new accounting standards
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 former lease guidance. The ASU also requires that for qualifying sale-leaseback transactions the seller recognises any gain or loss (based on the estimated fair value of the asset at the time of sale) when control of the asset is transferred instead of amortising it over the lease period. The Group adopted ASU 2016-02 on 1 January 2019 together with the following related ASUs on topic 842, "Leases": ASU 2018-01, ASU 2018-10, ASU 2018-11, ASU 2018-20 and ASU 2019-01. In line with the adoption method provided by ASU 2018-11"Targeted Improvements", the Group applied the new leases standard to its leases on the adoption date. The Group elected a package of practical expedients under the transition guidance within the new standard, which among other things allowed to carry forward the historical lease classification. The adoption did not have a material impact on the Group's financial statements.

In March 2017, the FASB issued ASU 2017-08, ''Premium Amortization on Purchased Callable Debt Securities'', an update to subtopic 310-20, ''Receivables – Nonrefundable Fees and Other Costs''. The update applies to certain purchased callable debt securities held at a premium. The ASU requires that those premiums should be amortised to the earliest call date and not to the maturity date. The Group adopted ASU 2017-08 on a modified retrospective basis on 1 January 2019. The adoption did not have a material impact on the Group's financial statements.

In July 2017, the FASB issued ASU 2017-11, ''Accounting for Certain Financial Instruments with Down Round Features'', an update to topic 260, ''Earnings Per Share'', topic 480, ''Distinguishing Liabilities from Equity'' and topic 815, ''Derivatives and Hedging''. A down round feature is a provision in an equity-linked financial instrument (or embedded features) that reduces the exercise price if the entity later sells stock for a lower price or issues an equity-linked instrument with a lower exercise price than the instrument's original exercise price. The amendments in this update change the classification analysis of certain equity-linked financial instruments (or embedded features) with down round features and require that a down round feature no longer precludes equity classification when assessing whether the instrument is indexed to an entity's own stock. The Group adopted ASU 2017-11 on 1 January 2019. The adoption did not have an impact on the Group's financial statements.

In August 2017, the FASB issued ASU 2017-12, ''Targeted Improvements to Accounting for Hedging Activities'', an update to topic 815, ''Derivatives and Hedging''. The update expands and refines hedge accounting for both nonfinancial and financial risk components and aligns the recognition and presentation of the effects of the hedging instrument and the hedged item in the financial statements. The ASU eliminates the requirement to separately measure and report hedge ineffectiveness and requires presentation of all items that affect earnings in the same income statement line as the hedged item. The new standard also provides alternatives for applying hedge accounting to additional hedging strategies and for measuring the hedged item in fair value hedges of interest rate risk. Further, the standard reduces the cost and complexity of applying hedge accounting by easing the requirements for effectiveness testing, hedge documentation and application of the critical terms match method. The Group adopted ASU 2017-12 on 1 January 2019. The adoption did not have a material impact on the Group's financial statements.

In June 2018, the FASB issued ASU 2018-07, ''Improvements to Nonemployee Share-Based Payment Accounting'', an update to topic 718, ''Compensation – Stock Compensation''. The update expands the scope of topic 718 to include share-based payment transactions for acquiring goods and services from nonemployees. The Group adopted ASU 2018-07 on 1 January 2019. The adoption did not have an impact on the Group's financial statements.

In June 2018, the FASB issued ASU 2018-08, ''Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made'', an update to topic 958, ''Not-for-Profit Entities''. The amendments in this update clarify and improve the former guidance about whether a transfer of assets (or the reduction, settlement, or cancellation of liabilities) is a contribution or an exchange transaction. The Group adopted ASU 2018-08 on a modified prospective basis on 1 January 2019. The adoption did not have an impact on the Group's financial statements.

In October 2018, the FASB issued ASU 2018-16, ''Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting Purposes'', an update to topic 815, ''Derivatives and Hedging''. The amendments in this update permit the use of the OIS rate based on SOFR as a US benchmark interest rate in order to facilitate the LIBOR to SOFR transition. The Group adopted ASU 2018-16 on 1 January 2019. The adoption did not have an impact on the Group's financial statements.

Future adoption of new accounting standards

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. The standard is applicable to all financial assets such as financial instruments that are measured at amortised cost, available-for-sale debt securities and reinsurance recoverables. The objective of the expected credit loss model is that a reporting entity recognises its estimate of expected credit losses incorporating forward-looking information in a valuation allowance for financial assets in scope. The ASU is effective for annual and interim periods beginning after 15 December 2020. For most affected financial assets, the ASU must be adopted using a modified retrospective approach, with a cumulative effect adjustment recorded to opening retained earnings on the adoption date. The Group is currently assessing the impact of the new requirements.

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 adoption of the ASU is permitted. The Group is currently assessing the impact of the new requirements.

In August 2018, the FASB issued ASU 2018-12, "Targeted Improvements to the Accounting for Long-Duration Contracts", an update to topic 944, "Financial Services—Insurance". This ASU requires that the cash flows and net premium ratio will be updated for changes in insurance assumptions (eg mortality, morbidity, terminations) when measuring the liability for future policy benefits for non-participating traditional and limited-payment insurance and reinsurance contracts. The effect of updating cash flow assumptions will be measured on a retrospective catch-up basis and presented separately from the ongoing policyholder benefit expense in the statement of operations in the period the update is made. There will no longer be a provision for adverse deviation. In addition, the discount rate used to reflect the time value of money in the calculation of the liability for future policy benefits will be standardised. An upper-medium-grade fixed-income instrument yield will be required, which differs from the current requirement to use a discount rate reflecting expected investment yields. Further, a locked-in rate will be used in the periodic calculation of the net premium ratio and accretion of interest on the liability for income statement purposes. For balance sheet remeasurement purposes, the discount rate will be updated at each reporting date, with the effect of discount rate changes on the liability recorded immediately in other comprehensive income (OCI). The ASU requires deferred acquisition costs (DAC) relating to most long-duration contracts to be amortised on a constant basis over the expected term of the contract, and the resulting amortisation amount should not be a function of revenue or profit. The new standard also introduces a new category called market risk benefits, which are features that protect the contract holder from capital market risk and expose the insurer to that risk. These features have to be measured at fair value, with changes in own credit risk recognised in OCI, and presented separately in the primary financial statements. The ASU also requires significant additional disclosures, including disaggregated roll forwards of the liability for future policy benefits, policyholder account balances, market risk benefits and DAC. The ASU is effective for annual and interim periods beginning after 15 December 2020. Early adoption of the amendments is permitted. The new guidance relating to measurement of the traditional and limited-payment contract liabilities and DAC amortisation has to be adopted under a modified retrospective transition approach, with an option to elect a full retrospective transition if certain criteria are met. Under the modified retrospective approach, for contracts in force at the transition date, an entity would continue to use the existing locked-in investment yield interest rate assumptions to calculate the net premium ratio. However, for balance sheet measurement purposes, policyholder liabilities are discounted at the upper-medium-grade fixed-income instrument yield at the transition date, with the impact of the change recognised against accumulated OCI. The Group is currently assessing the impact of the new requirements.

2 Information on business segments

The Group provides 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 customized solutions tailored to the needs of clients. The business segments are determined by the organisational structure and the way in which management reviews the operating performance of the Group.

The Group presents five core operating business segments: Property, Accident & Health, Other liability, Specialty and Credit.

The Group does not track and manage its investment portfolio by operating segment, and therefore separate balance sheets are not maintained. Accordingly, the Group does not review and evaluate the financial results of its operating segments based upon balance sheet data.

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
The Property segment includes insurance for fire, wind, water damage and vandalism. It also provides cover for flood, earthquake, tsunami and terrorism. Business interruption insurance is complementary to property insurance. Agriculture is also covered in this segment.

Accident & Health
The Accident & Health segment includes accident and health insurance, primarily consisting of employers stop loss. Employers stop loss policies provide specific and aggregate coverage for self-funded medical benefit plans. Additionally, reserves for run off workers compensation business are held and maintained, though this business is no longer actively written.

Other liability
The Other liability segment includes liability and motor. The Group's liability insurance products provide coverage against legal liability exposure of a business including product, professional, directors' and officers' (D&O) and environmental liability insurance.

Specialty
The Specialty business segment consists of dedicated insurance offerings to specific industries on a global scale such as aviation and space, engineering and construction, and marine.

Credit
The Credit segment provides innovative trade, commodity and infrastructure finance risk sharing solutions along with surety solutions and political risk insurance covers.

Business segments – income statement
For the six months ended 30 June

2018

USD millions	Property	Accident & Health	Other liability	Specialty	Credit	Total
Gross premiums written	691	346	518	266	222	2 043
Net premiums written	535	325	447	238	168	1 713
Change in unearned premiums	117	–98	63	95	28	205
Premiums earned	652	227	510	333	196	1 918
Expenses						
Claims and claim adjustment expenses	–393	–149	–398	–295	–54	–1 289
Acquisition costs	–88	–36	–62	–56	–56	–298
Operating expenses	–117	–41	–111	–90	–30	–389
Total expenses before interest expenses	–598	–226	–571	–441	–140	–1 976
Underwriting result	54	1	–61	–108	56	–58
Net investment income						102
Net realised investment gains/losses						0
Other revenues						1
Interest expenses						–12
Income/loss before income tax expense						33
Claims ratio in %	60.3	65.7	78.1	88.6	27.5	67.2
Expense ratio in %	31.4	33.9	33.9	43.8	43.9	35.8
Combined ratio in %	91.7	99.6	112.0	132.4	71.4	103.0

2019

USD millions	Property	Accident & Health	Other liability	Specialty	Credit	Total
Gross premiums written	**720**	**348**	**549**	**309**	**275**	**2 201**
Net premiums written	550	324	459	274	224	1 831
Change in unearned premiums	151	–104	83	83	19	232
Premiums earned	**701**	**220**	**542**	**357**	**243**	**2 063**
Expenses						
Claims and claim adjustment expenses	–601	–178	–766	–368	–118	–2 031
Acquisition costs	–92	–25	–72	–61	–63	–313
Operating expenses	–129	–37	–112	–114	–40	–432
Total expenses before interest expenses	**–822**	**–240**	**–950**	**–543**	**–221**	**–2 776**
Underwriting result	**–121**	**–20**	**–408**	**–186**	**22**	**–713**
Net investment income						109
Net realised investment gains/losses						77
Other revenues						1
Interest expenses						–20
Income/loss before income tax expense						**–546**
Claims ratio in %	85.8	80.9	141.4	103.1	48.5	98.5
Expense ratio in %	31.5	28.2	33.9	49.0	42.4	36.1
Combined ratio in %	117.3	109.1	175.3	152.1	90.9	134.6

3 Insurance information

For the six months ended 30 June

Premiums written and premiums earned

USD millions	2018	2019
Premiums written, thereof:		
Direct	1 598	1 770
Reinsurance	445	431
Ceded	–330	–370
Net premiums written	1 713	**1 831**
Premiums earned, thereof:		
Direct	1 642	1 840
Reinsurance	521	487
Ceded	–245	–264
Net premiums earned	1 918	**2 063**

Claims and claim adjustment expenses

USD millions	2018	2019
Claims paid, thereof:		
Gross	–1 657	–1 692
Ceded	360	348
Net claims paid	–1 297	**–1 344**
Change in unpaid claims and claim adjustment expenses, thereof:		
Gross	155	–619
Ceded	–147	–68
Net unpaid claims and claim adjustment expenses	8	**–687**
Claims and claim adjustment expenses	–1 289	**–2 031**

Acquisition costs

USD millions	2018	2019
Acquisition costs, thereof:		
Gross	–348	–368
Ceded	50	55
Net acquisition costs	–298	**–313**

Insurance receivables

Insurance receivables as of 31 December 2018 and 30 June 2019 were as follows:

USD millions	2018	2019
Premium receivables invoiced	902	1 316
Receivables invoiced from ceded re/insurance business	116	226
Recognised allowance	–34	–38

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4 Unpaid claims and claim adjustment expenses

A reconciliation of the opening and closing reserve balances for unpaid claims and claim adjustment expenses as of and for the year ended 31 December 2018 and as of 30 June 2019 is presented as follows:

USD millions	2018	2019
Balance as of 1 January	11 818	11 929
Reinsurance recoverable	–5 458	–4 985
Net balance as of 1 January	6 360	**6 944**
Incurred related to:		
Current year	2 946	1 385
Prior year	281	540
Impacts of retroactive reinsurance	0	100
Total incurred	3 227	**2 025**
Paid related to:		
Current year	–469	–75
Prior year	–2 028	–1 269
Total paid	–2 497	**–1 344**
Foreign exchange	–102	12
Effect of acquisitions, disposals, new retroactive reinsurance and other items	–44	–107
Net balance as of period end	6 944	**7 530**
Reinsurance recoverable	4 985	5 034
Balance as of period end	11 929	**12 564**

Prior-year development

In the first half-year of 2019 the Group was significantly impacted by large man-made losses, in Other liability and predominantly in North America. Property was also impacted by large man-made and natural catastrophe losses. All lines of business were impacted by significantly higher frequency of small- to-medium sized losses and unallocated loss adjustment expenses increase.

A summary of prior-year net claims and claim adjustment expenses development by lines of business as of and for the year ended 31 December 2018 and as of 30 June 2019 is shown below[1]:

USD millions	2018	**2019**
Line of business:		
Property	96	193
Accident & Health	51	7
Other liability	141	266
Specialty	0	38
Credit	–7	36
Total	281	**540**

[1] Adverse development is positive and represents a charge to the income statement. Favourable development is negative and represents a credit to the income statement

5 Deferred acquisition costs (DAC)

As of and for the year ended 31 December 2018 and as of 30 June 2019, the DAC were as follows:

USD millions	2018	**2019**
Opening balance as of 1 January	454	488
Deferred	634	269
Amortisation	–595	–306
Effect of foreign currency translation	–5	
Closing balance	488	**451**

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.

6 Investments

Investment income

Net investment income by source for the six months ended 30 June was as follows:

USD millions	2018	2019
Fixed income securities	79	84
Equity securities	3	3
Short-term investments	3	5
Other current investments	4	4
Share in earnings of equity-accounted investees	25	21
Cash and cash equivalents	4	6
Net result from deposit-accounted contracts	3	
Deposits with ceding companies	2	1
Gross investment income	123	**124**
Investment expenses	–12	–13
Interest charged for funds held	–9	–2
Net investment income	102	**109**

Realised gains and losses

Realised gains and losses for fixed income, equity securities and other investments for the six months ended 30 June were as follows:

USD millions	2018	2019
Fixed income securities available-for-sale:		
Gross realised gains	3	8
Gross realised losses	–14	–3
Other-than-temporary impairments		
Net realised investment gains/losses on equity securities	1	2
Change in net unrealised investment gains/losses on equity securities	–1	25
Net realised/unrealised gains/losses on other investments	1	–2
Net realised/unrealised gains/losses on insurance-related activities	8	52
Foreign exchange gains/losses	2	–5
Net realised investment gains/losses	0	**77**

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, a 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.

Investments available-for-sale

Amortised cost or cost and estimated fair values of fixed income securities classified as available-for-sale as of 31 December 2018 and 30 June 2019 were as follows:

2018 USD millions	Amortised cost or cost	Gross unrealised gains	Gross unrealised losses	Estimated fair value
Debt securities issued by governments and government agencies:				
US Treasury and other US government corporations and agencies	2 580	6	–18	2 568
US Agency securitised products	220	1	–1	220
States of the United States and political subdivisions of the states	404	5	–4	405
Canada	417	1	–5	413
Brazil	196	3		199
Australia	144		–1	143
Other	197	1	–5	193
Total	4 158	17	–34	4 141
Corporate debt securities	1 827	4	–34	1 797
Mortgage- and asset-backed securities	329	1	–4	326
Fixed income securities available-for-sale	6 314	22	–72	6 264

2019 USD millions	Amortised cost or cost	Gross unrealised gains	Gross unrealised losses	Estimated fair value
Debt securities issued by governments and government agencies:				
US Treasury and other US government corporations and agencies	1 954	24	–2	1 976
US Agency securitised products	226	6		232
States of the United States and political subdivisions of the states	401	14		415
Canada	458	2		460
Brazil	196	5		201
Australia	171	2	–1	172
Other	256	2	–2	256
Total	3 662	55	–5	3 712
Corporate debt securities	1 828	52	–1	1 879
Mortgage- and asset-backed securities	336	5		341
Fixed income securities available-for-sale	**5 826**	**112**	**–6**	**5 932**

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 2018 and 30 June 2019.

2018 USD millions	Less than 12 months Fair value	 Unrealised losses	12 months or more Fair value	 Unrealised losses	Total Fair value	 Unrealised losses
Debt securities issued by governments and government agencies:						
US Treasury and other US government corporations and agencies	218	0	1 922	18	2 140	18
US Agency securitised products	20	0	18	1	38	1
States of the United States and political subdivisions of the states	13	0	140	4	153	4
Canada	271	5			271	5
Australia	20	0	8	1	28	1
Other	34	0	119	5	153	5
Total	576	5	2 207	29	2 783	34
Corporate debt securities	822	13	638	21	1 460	34
Mortgage- and asset-backed securities	73	0	164	4	237	4
Total	1 471	18	3 009	54	4 480	72

2019 USD millions	Less than 12 months Fair value	 Unrealised losses	12 months or more Fair value	 Unrealised losses	Total Fair value	 Unrealised losses
Debt securities issued by governments and government agencies:						
US Treasury and other US government corporations and agencies	2	0	1 012	2	1 014	2
US Agency securitised products	24	0	7	0	31	0
States of the United States and political subdivisions of the states			12	0	12	0
Canada			189	0	189	0
Brazil	11	0			11	0
Australia	13	0	8	1	21	1
Other	9	0	103	2	112	2
Total	59	0	1 331	5	1 390	5
Corporate debt securities	26	0	139	1	165	1
Mortgage- and asset-backed securities	36	0	33	0	69	0
Total	**121**	**0**	**1 503**	**6**	**1 624**	**6**

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 2018 and 30 June 2019, USD 1 689 million and USD 1 851 million, respectively, of fixed income securities available-for-sale were callable.

USD millions	2018 Amortised cost or cost	2018 Estimated fair value	2019 Amortised cost or cost	2019 Estimated fair value
Due in one year or less	2 054	2 042	1 778	1 778
Due after one year through five years	2 233	2 216	1 957	1 981
Due after five years through ten years	1 193	1 180	1 234	1 289
Due after ten years	505	500	521	543
Mortgage- and asset-backed securities with no fixed maturity	329	326	336	341
Total fixed income securities available-for-sale	6 314	6 264	**5 826**	**5 932**

Assets pledged

As of 31 December 2018 and 30 June 2019, investments with a carrying value of USD 924 million and USD 982 million were on deposit with regulatory agencies in accordance with local requirements, of which USD 61 million and USD 24 million were cash and cash equivalents, and investments with a carrying value of USD 259 million and USD 309 million were placed on deposit or pledged to secure certain reinsurance liabilities, of which USD 3 million and USD 26 million were cash and cash equivalents. Cash and cash equivalents pledged include some instances where cash is legally restricted from usage or withdrawal.

As of 31 December 2018 and 30 June 2019, securities of USD 1 639 million and USD1 886 million, respectively, were transferred to third parties under securities lending transactions and repurchase agreements on a fully collateralised basis. There were no associated liabilities.

Other financial assets and liabilities by measurement category

As of 31 December 2018 and 30 June 2019

2018 USD millions	Fair Value	Investments measured at net asset value as practical expedient	Amortised Cost or cost	Equity-accounted	Not in scope[1]	Total
Other invested assets						
Derivative financial instruments	14					14
Reverse repurchase agreements			20			20
Equity accounted investments				1 944		1 944
Other		8	80			88
Other invested assets	14	8	100	1 944	0	2 066
Accrued expenses and other liabilities						
Derivative financial instruments	127					127
Other			65		357	422
Accrued expenses and other liabilities	127	0	65	0	357	549

2019 USD millions	Fair Value	Investments measured at net asset value as practical expedient	Amortised Cost or cost	Equity-accounted	Not in scope[1]	Total
Other invested assets						
Derivative financial instruments	28					28
Reverse repurchase agreements			4			4
Equity accounted investments				2 036		2 036
Other		7	80			87
Other invested assets	**28**	**7**	**84**	**2 036**	**0**	**2 155**
Accrued expenses and other liabilities						
Derivative financial instruments	66					66
Other			59		350	409
Accrued expenses and other liabilities	**66**	**0**	**59**	**0**	**350**	**475**

[1] Amounts do not relate to financial assets or liabilities.

Offsetting of derivatives, financial assets and financial liabilities

Offsetting of derivatives, financial assets and financial liabilities as of 31 December 2018 and 30 June 2019 was as follows:

2018 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	14		14	–1	13
Reverse repurchase agreements	20		20	–20	0
Total	34	0	34	–21	13

2018 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	–127		–127	22	–105
Total	–127	0	–127	22	–105

2019 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	28		28		**28**
Reverse repurchase agreements	4		4	–4	**0**
Total	**32**	**0**	**32**	**–4**	**28**

2019 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	–66		–66	3	**–63**
Total	**–66**	**0**	**–66**	**3**	**–63**

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" and "Accrued expenses and other liabilities", respectively.

7 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 (ABS). 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. 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 the six months ended 30 June 2019, these adjustments were not material.

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 upon 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 Swiss Re 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 transparent and liquid markets.

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 and 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 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 the 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 funds investments which are made via ownership of funds. The Group's holdings in private equity 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.

Governance around level 3 fair valuation

The Asset Valuation Committee, endorsed by the Swiss Re Group Executive Committee, has a primary responsibility for governing and overseeing all of the 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 the 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 fair values through the vendor- and model-based valuations, the results of which are also subject to the IPV process.

Assets and liabilities measured at fair value on a recurring basis

As of 31 December 2018 and 30 June 2019, the fair values of assets and liabilities measured on a recurring basis by level of input were as follows:

2018 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)	Investments measured at net asset value as practical expedient	Total
Assets					
Fixed income securities held for proprietary investment purposes	2 569	3 695			6 264
Debt securities issued by US government and government agencies	2 569	404			2 973
US Agency securitised products		220			220
Debt securities issued by non-US governments and government agencies		948			948
Corporate debt securities		1 797			1 797
Mortgage- and asset-backed securities		326			326
Equity securities held for proprietary investment purposes	167	13			180
Short-term investments held for proprietary investment purposes	176	217			393
Derivative financial instruments	2	6	6		14
Other invested assets				8	8
Total assets at fair value	2 914	3 931	6	8	6 859
Liabilities					
Derivative financial instruments		–6	–121		–127
Total liabilities at fair value	0	–6	–121		–127

2019 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)	Investments measured at net asset value as practical expedient	Total
Assets					
Fixed income securities held for proprietary investment purposes	1 976	3 956			5 932
Debt securities issued by US government and government agencies	1 976	415			2 391
US Agency securitised products		232			232
Debt securities issued by non-US governments and government agencies		1 089			1 089
Corporate debt securities		1 879			1 879
Mortgage- and asset-backed securities		341			341
Equity securities held for proprietary investment purposes	195	4			199
Short-term investments held for proprietary investment purposes	558	203			761
Derivative financial instruments	4	10	14		28
Other invested assets				7	7
Total assets at fair value	**2 733**	**4 173**	**14**	**7**	**6 927**
Liabilities					
Derivative financial instruments	–3	–6	–57		–66
Total liabilities at fair value	**–3**	**–6**	**–57**		**–66**

Assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs (level 3)
As of 31 December 2018 and 30 June 2019, the reconciliation of the fair values of assets and liabilities measured on a recurring basis using significant unobservable inputs was as follows:

2018 USD millions	Derivative assets	Total assets	Derivative liabilities	Total liabilities
Assets and liabilities				
Balance as of 1 January	16	16	–76	–76
Realised/unrealised gains/losses:				
Included in net income		0	30	30
Purchases	3	3		0
Issuances		0	–140	–140
Sales	–3	–3	23	23
Settlements	–10	–10	42	42
Closing balance as of 31 December	6	6	–121	–121

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

2019 USD millions	Derivative assets	**Total assets**	Derivative liabilities	**Total liabilities**
Assets and liabilities				
Balance as of 1 January	6	**6**	–121	**–121**
Realised/unrealised gains/losses:				
Included in net income	–3	**–3**	56	**56**
Purchases	11	**11**		**0**
Issuances		**0**	–30	**–30**
Sales		**0**	19	**19**
Settlements		**0**	19	**19**
Closing balance as of 30 June	**14**	**14**	**–57**	**–57**

[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 six months ended 30 June were as follows:

USD millions	2018	2019
Gains/losses included in net income for the period	9	53
Whereof change in unrealised gains/losses relating to assets and liabilities still held at the reporting date	5	32

Quantitative information about level 3 fair value measurements

Unobservable inputs for major level 3 assets and liabilities as of 31 December 2018 and 30 June 2019 were as follows:

USD millions	2018 Fair value	2019 Fair value	Valuation technique	Unobservable input	Range (weighted average)
Liabilities					
Derivative financial instruments	–121	**–57**			
Weather contracts	–77	–32	Proprietary Option Model	Risk margin	5%–11% (9%)
				Correlation	–36%–55% (52%)
				Volatility (power/gas)	20%–54% (50%)
				Volatility (temperature)	48–148 (94) HDD/CAT[1]
				Index value (temperature)	301–2807 (1068) HDD/CAT[1]
Industry loss warrants	–26	–17	Credit Default Model	Market implied probability of Nat Cat event	1%–13% (5%)
Power outage contracts	–18	–8	Proprietary Option Model	Risk margin	6%–13% (7%)
				Average power forward price	USD 27–USD 93 (USD 36.6)

[1] Heating Degree Days (HDD); Cumulative Average Temperature (CAT).

Sensitivity of recurring level 3 measurements to changes in unobservable inputs

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.

The significant unobservable input used in the fair value measurement of the Group's industry loss warrants is the market implied probability of a natural catastrophe event. 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 power outage contracts are risk margin and average power forward price. A significant increase (decrease) in these inputs in isolation would result in a significantly lower (higher) fair value measurement.

Other invested assets measured at net asset value

As of 31 December 2018 and 30 June 2019, other assets measured at net asset value were USD 8 million and USD 7 million, respectively. Additionally, there were USD 1 million of unfunded commitments as of 30 June 2019.

Private equity funds generally have limitations on the amount of redemptions from a 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.

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

			2018			2019
	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Liabilities						
Debt	–467	–300	–767	–508	–300	–808
Total liabilities	–467	–300	–767	**–508**	**–300**	**–808**

The Group's debt position classified as level 2 measurement is fair valued based on executable broker quotes. The Group's level 3 debt position is judged to approximate carrying value due to the highly tailored nature of the obligation and due to the resetting interest rate.

8 Derivative financial instruments

The Group enters into various financial contracts covering risks such as weather, weather-contingent price risks, outage contingent power price risks and industry loss warrants, that are accounted for as derivative financial instruments (also referred to as Environmental Commodity Markets and Weather business, or "ECM/Weather contracts/ ILW"). The Group also uses derivatives to manage exposure to foreign currency risks. Derivative positions are carried at fair value, generally by obtaining quoted market prices or through the use of valuation models, with changes in fair value recorded in the income statement.

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 OTC 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.

Fair values and notional amounts of derivative financial instruments

As of 31 December 2018 and 30 June 2019, the fair values and notional amounts of the derivatives outstanding were as follows:

2018 USD millions	Notional amount assets/liabilities	Fair value assets	Fair value liabilities	Carrying value assets/liabilities
Derivatives not designated as hedging instruments				
Foreign exchange contracts	461	3	–5	–2
ECM/Weather contracts/ILW	1 190	8	–121	–113
Credit contracts	205		–1	–1
Total	1 856	11	–127	–116
Derivatives designated as hedging instruments				
Foreign exchange contracts	149	3		3
Total	149	3	0	3
Total derivative financial instruments	2 005	14	–127	–113

2019 USD millions	Notional amount assets/liabilities	Fair value assets	Fair value liabilities	Carrying value assets/liabilities
Derivatives not designated as hedging instruments				
Foreign exchange contracts	546	10	–3	7
ECM/Weather contracts/ILW	1 050	18	–60	–42
Credit contracts				
Total	**1 596**	**28**	**–63**	**–35**
Derivatives designated as hedging instruments				
Foreign exchange contracts	150		–3	–3
Total	**150**	**0**	**–3**	**–3**
Total derivative financial instruments	**1 746**	**28**	**–66**	**–38**

The notional amounts of derivative financial instruments give an indication of the Group's volume of derivative activity and are presented without set-off. The fair value assets are included in "Other invested assets" and the fair value liabilities are included in "Accrued expenses and other liabilities".

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" in the income statement.

The gains and losses of derivative financial instruments not designated as hedging instruments for the six months ended 30 June were as follows:

USD millions	2018	**2019**
Derivatives not designated as hedging instruments		
Foreign exchange contracts	–1	
Credit contracts	1	–2
ECM/Weather contracts/ILW	8	51
Total gains/losses recognised in income	8	**49**

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 30 June 2018 and 2019, 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" in the income statement. For the six months ended 30 June, the gains and losses attributable to the hedged risks were as follows:

		2018		**2019**
USD millions	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	5	–5	–7	7
Total gains/losses recognised in income	5	–5	**–7**	**7**

Maximum potential loss

The maximum potential loss as of 31 December 2018 and 30 June 2019 was approximately USD 14 million and USD 28 million, respectively. The maximum potential loss is based on the positive market replacement cost assuming non-performance of all counterparties.

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 47 million and USD 17 million as of 31 December 2018 and 30 June 2019, respectively. For derivative financial instruments containing credit risk-related contingent features, the Group posted collateral of nil as of 31 December 2018 and 30 June 2019. In the event of a reduction of the Group's credit rating to below investment grade, a fair value of USD 17 million additional collateral would have had to be posted as of 30 June 2019. The total equals the amount needed to settle the instruments immediately as of 30 June 2019.

9 Debt

The Group's debt as of 31 December 2018 and 30 June 2019 was as follows:

USD millions	2018	2019
Long-term subordinated financial debt	798	798
Total carrying value	798	798
Total fair value	767	808

Interest expense on long-term debt

Interest expense on long-term debt for the periods ended 30 June was as follows:

USD millions	2018	2019
Subordinated financial debt	11	20
Total	11	20

Long-term debt issued in 2019

No long-term debt was issued in the first half of 2019.

10 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 investment vehicles, 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:

- 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 regularly reassesses the primary beneficiary determination.

Investment vehicles

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 invests in an investment vehicle that is consolidated by Swiss Reinsurance Company. The investment vehicle is a VIE because it is structured as an umbrella company comprised of multiple sub-funds.

The Group did not provide financial or other support to any VIEs during 2019 that it was not previously contractually required to provide.

Non-consolidated VIEs

The following table shows the total assets 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 2018 and 30 June 2019:

USD millions	2018	2019
Equity securities at fair value through earnings	27	31
Other invested assets	1 951	2 049
Total assets	1 978	**2 080**

The following table shows the Group's assets and maximum exposure to loss related to the VIEs in which the Group held a variable interest but was not the primary beneficiary as of 31 December 2018 and 30 June 2019:

	2018		2019	
USD millions	Total assets	Maximum exposure to loss[1]	Total assets	Maximum exposure to loss[1]
Investment vehicles	1 978	1 978	2 080	2 080
Total	1 978	1 978	**2 080**	**2 080**

[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.

11 Benefit plans

SRCS is a wholly owned subsidiary of Swiss Re Ltd. Swiss Re Ltd is the ultimate parent company of the Swiss Re Group. SRCS and its subsidiaries participate in various pension plans sponsored by affiliated companies of the Swiss Re Group. These pension plans include the "Pension Fund Swiss Reinsurance Company (Swiss Re)" among others.

Group contributions for 2019

For the six months ended 30 June 2019, the Group contributed USD 6 million to the aforementioned pension plans.

Cautionary note on forward-looking statements

Certain statements contained herein are forward-looking. These statements (including as to plans, objectives, targets and trends) 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" and "may fluctuate" and similar expressions or by future or conditional verbs such as "will," "should," "would" and "could." These forwardlooking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results of operations, financial condition, liquidity position or prospects to be materially different from any future results of operations, financial condition, liquidity position or prospects expressed or implied by such statements. Among the key factors that have a direct bearing on our results of operations, financial condition, liquidity position or prospects are:

- further instability affecting the global financial system and developments related thereto, including as a result of concerns over, or adverse developments relating to, sovereign debt of eurozone countries;
- further deterioration in global economic conditions;
- our ability to maintain sufficient liquidity and access to capital;
- the effect of market conditions, including the global equity and credit markets, and the level and volatility of interest rates, credit spreads, equity prices, currency values and other market indices, on our investment assets;
- changes in our investment result as a result of changes in our investment policy or the changed composition of our investment assets, and the impact of the timing of any such changes relative to changes in market conditions;
- possible inability to realise amounts on sales of securities on our balance sheet equivalent to their mark-to-market values recorded for accounting purposes;
- mortality, morbidity and longevity rates;
- policy renewal and lapse rates;
- uncertainties in estimating reserves;
- extraordinary events affecting our counterparties;
- current, pending and future legislation and regulation affecting us, and interpretations of legislation or regulations by regulators, particularly in respect of minimum capital requirements;
- 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 or other issues experienced in connection with any such transactions;
- changing levels of competition; and
- operational factors, including the efficacy of risk management and other internal procedures in managing the foregoing risks.

These factors are not exhaustive. We operate in a continually changing environment and new risks emerge continually. Readers are cautioned not to place undue reliance on forward-looking statements. We undertake 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 Corporate Solutions 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.

Financial, credit and foreign exchange markets are experiencing continued periods of volatility reflecting a range of political, economic and other uncertainties, some of the more significant of which are inter-related. These include the planned withdrawal of the United Kingdom from the European Union and significant uncertainty regarding the basis of that withdrawal and the future relationship between the United Kingdom and the European Union; the possible emergence of trade barriers and other protection policies across a range of economies, including a sustained trade war between the United States and China; geopolitical tensions more broadly; a prolonged slowdown in one or more of the principal global economies, particularly in China, and possible recession; continued challenges faced by the Eurozone; the tightening of monetary policy; sustained challenges to multilateral institutions and frameworks; the domestic political situation in the United States, various member states of the European Union and potentially other countries; and heightened scrutiny of technology companies.

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.

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 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 applicable regulation in each of the jurisdictions in which they conduct business, particularly Switzerland, the United States, the United Kingdom, countries in the European Union (including Luxembourg), Australia, Japan, Canada, Singapore and Dubai. In addition, the Group could be affected by regulatory changes or developments affecting the overall Swiss Re group, comprising Swiss Re Ltd ("SRL") and its consolidated subsidiaries, of which the Group is a part (the "Swiss Re Group").

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.

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 United Kingdom and the European Union could also impact the legislative and/or regulatory regimes to which the Group is subject, both in the United Kingdom and in the European Union.

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. These changes, or inconsistencies between the various regimes that apply to the Group, could increase the costs of doing business (including due to increased capital requirements), reduce access to liquidity, limit the scope of current or future business or affect the competitive balance, or could make insurance 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 industry, 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, basis and correlation risks. 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 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 coverage obligations. The Group's uses of funds include obligations arising in its insurance business, 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.

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 operations. Moreover, the Group could be adversely affected by liquidity issues at clients 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 insurance companies. Third-party rating agencies assess and rate the financial strength of 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 and/or the ratings of its key legal entities. 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 insurers, a decline in ratings alone could make insurance provided by the Group less attractive to clients relative to insurance 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 insurance only from insurers with certain ratings. Moreover, a decline in ratings could impact the availability and terms of unsecured financing (potentially impacting both the Group's ability to roll over facilities or obtain new facilities) and obligate the Group to provide collateral or other guarantees in the course of its insurance 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.

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 the Group's 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 clients, 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, (for whom aggressive tax enforcement is becoming a higher priority), 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 natural disasters, such as hurricanes, windstorms, floods, earthquakes, and man-made disasters, such as acts of terrorism and other disasters such as industrial accidents, explosions, and fires, and pandemics) are inherently unpredictable in terms of both their frequency and severity and have exposed, and may expose, the Group to unexpected large losses (and related uncertainties in estimating future claims in respect of such events); competitive conditions (including as a result of consolidation and the availability of significant levels of alternative capacity); cyclicality 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 (where accumulation risk is yet to be fully understood), 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 the Group's clients; 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. 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 reporting. 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.

Risks related to the Swiss Re corporate structure

Swiss Re is a wholly owned subsidiary of SRL, and the Group represents only one of the four principal operating segments of the Swiss Re Group.

The Group does not currently operate on a standalone basis. It is dependent on other members of the Swiss Re Group for a range of asset management services, corporate services (including general management services, human resources, logistics, IT support, finance, treasury and accounting services, auditing services, risk management oversight and legal and compliance) and technical services (including actuarial services support, underwriting services support and claims operations support). In addition, the Group derives a range of significant operational and other benefits from its status as a part of the Swiss Re Group, including its ability to market its products on a worldwide basis under the "Swiss Re Corporate Solutions" brand name. As a result, factors affecting the Swiss Re Group, whether involving developments or events unique to Swiss Re or events or developments applicable more broadly, could have a material adverse effect on the Group's ability to conduct its business, even if such factors do not directly impact the Group's business operations.

Capital, funding, reserve and cost allocations are made at the Swiss Re Group level across the four operating segments based principally on business plans as measured against US GAAP and economic value management metrics. Decisions at the Swiss Re Group level in respect of the broader Swiss Re Group could have an adverse impact on the Group's financial condition, including its capital and liquidity levels, as well as on its SST ratio. As part of the Swiss Re Group's focus on efficient capital allocation, the Group expects to be paying dividends to SRL. Decisions on dividends payable by each of the operating segments, including the Group, are made at the Swiss Re Group level based on legal entity, regulatory, capital and liquidity considerations. While to date the Group remains wholly owned by SRL, in the future, the Swiss Re Group may partner (for purposes of acquisitions or otherwise) with other investors in, or within, one or more of its business units or sub-groups within its business units (including the Group), which, subject to applicable regulatory requirements, have the potential to alter its 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 and board composition at the relevant corporate level. The Group's structure could also change in connection with acquisitions or dispositions. To the extent it undertakes acquisitions, it is subject to the risks inherent in acquiring and integrating new operations.

While further changes to the overall Swiss Re Group structure may not have a financial statement impact on a Swiss Re Group consolidated basis, they would impact the Group to the extent that operations are transferred into or from the Group, or as a result of intra-group transactions (from the perspective of the Swiss Re Group) to the extent the Group is a counterparty to any such transactions.

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