Aspen Bermuda Limited

Financial Statements and
Independent Auditors Report

December 31, 2022 and 2021

INDEX TO THE FINANCIAL STATEMENTS

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Report of Independent Auditors

The Board of Directors
Aspen Bermuda Limited

Opinion

We have audited the financial statements of Aspen Bermuda Limited (the "Company"), which comprise the balance sheet as of December 31, 2022, and the related statements of comprehensive income, changes in shareholder's equity and cash flows for the year then ended, and the related notes (collectively referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022, and the results of its operations and its cash flow for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Company and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Report of Other Auditors on December 31, 2021 Financial Statements

The financial statements of the Company for the year ended December 31, 2021, were audited by another auditor who expressed an unmodified opinion on those statements on April 29, 2022.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free of material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern for one year after the date that the financial statements are available to be issued.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free of material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, no such opinion is expressed.

- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.

- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States require that the incurred losses and loss adjustment expenses, net of reinsurance and the cumulative paid losses and loss adjustment expenses, net of reinsurance for the years ending 2021 and prior and the average annual percentage payout of incurred claims by age be presented to supplement the financial statements. Such information is the responsibility of management and, although not a part of the financial statements, is required by the Financial Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with evidence sufficient to express an opinion or provide any assurance.

Management has omitted the average annual percentage payout of incurred claims by age disclosure that accounting principles generally accepted in the United States of America require to be presented to supplement the financial statements. Such missing information, although not a part of the financial statements, is required by the Financial Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. Our opinion on the financial statements is not affected by this missing information.

Ernst & Young Ltd.

Hamilton, Bermuda
April 30, 2023

ASPEN BERMUDA LIMITED

BALANCE SHEETS

As at December 31, 2022 and 2021

(In thousands of U.S. dollars, except per share and share amounts)

	As at December 31,			
		2022		**2021**
		US$		US$
Assets				
Investments:				
Fixed maturities, available for sale, at fair value *(Amortized cost 2022: $1,314,804; 2021: $1,450,862)* *(Allowance for expected credit losses 2022: $2,299 ; 2021: $562)*	$	1,207,891	$	1,484,373
Fixed maturities, trading, at fair value *(Amortized cost 2022: $741,585; 2021: $565,616)*		685,485		567,105
Short term investments, available for sale, at fair value *(Amortized cost 2022: $nil; 2021: $2,425)*		—		2,432
Short term investments, trading, at fair value *(Amortized cost 2022: $nil; 2021: $795)*		—		795
Privately-held investments, trading, at fair value *(Amortized cost 2022: $165,819; 2021: $164,172)*		163,914		161,928
Other investments, at fair value		134,557		129,946
Total Investments (Notes 3 and 4)	$	2,191,847	$	2,346,579
Cash and cash equivalents (Note 11)		112,340		279,587
Reinsurance recoverable on losses and loss expenses (Note 12) *(Allowance for expected credit losses 2022: $38; 2021: $22)*		1,843,572		948,841
Prepaid reinsurance premiums		123,357		92,742
Premiums receivable (Note 12) *(Allowance for expected credit losses 2022: $nil; 2021: $nil)*		560,736		369,598
Funds withheld		475,163		634,443
Deferred acquisition costs		93,886		64,729
Derivatives at fair value (Note 5)		29,181		5,432
Right-of-use operating lease assets (Note 11)		6,811		8,481
Due from related party (Note 9)		222,116		159,504
Other assets		29,281		23,193
Total assets	**$**	**5,688,290**	**$**	**4,933,129**

See accompanying notes to the Financial Statements

ASPEN BERMUDA LIMITED

BALANCE SHEETS

As at December 31, 2022 and 2021

(In thousands of U.S. dollars, except per share and share amounts)

	As at December 31,	
	2022	**2021**
	US$	US$
Liabilities		
Reserves for losses and loss expenses (Note 7)	$ 3,009,277	$ 3,092,128
Unearned premium reserves	508,678	401,352
Reinsurance premiums payable	1,158,535	204,091
Due to related party (Note 13)	75,000	75,000
Operating lease liabilities (Note11)	6,892	8,507
Liabilities under derivative contracts (Note 5)	21,048	7,130
Income tax payable (Note 15)	232	369
Other liabilities	31,526	13,523
Total liabilities	**$ 4,811,188**	**$ 3,802,100**
Shareholder's equity		
Common shares, $1 par value, 1,000,000 authorized, issued and fully paid (Note 10)	1,000	1,000
Additional paid-in capital (Note 10)	1,329,000	1,329,000
Accumulated deficit	(348,710)	(233,474)
Accumulated other comprehensive (loss) income	(104,188)	34,503
Total shareholder's equity	**$ 877,102**	**$ 1,131,029**
Total liabilities and shareholder's equity	**$ 5,688,290**	**$ 4,933,129**

Signed on behalf of the Board

Director

Director

See accompanying notes to the Financial Statements

ASPEN BERMUDA LIMITED

STATEMENT OF COMPREHENSIVE INCOME (LOSS)

As at December 31, 2022 and 2021

(In thousands of U.S. dollars, except per share and share amounts)

	For the years ended December 31,	
	2022	**2021**
	US$	US$
Revenues		
Gross premiums written	$ 1,431,150	$ 1,327,169
Premiums ceded (Note 8)	(401,512)	(381,332)
Net premiums written	1,029,638	945,837
Change in net unearned premiums	(76,709)	(129,499)
Net earned premium	952,929	816,338
Other underwriting (loss) income	(63,694)	6,438
Net investment income (Note 3)	75,929	85,687
Net realized and unrealized foreign exchange (losses) gains	(2,662)	18,527
Net realized and unrealized investment (losses) gains (Note 3)	(83,535)	901
Total Revenues	$ 878,967	$ 927,891
Expenses		
Losses and loss adjustment expenses (Note 7 and 8)	538,855	626,537
Amortization of deferred policy acquisition costs (Note 6)	237,964	195,318
General, administrative and corporate expenses (Note 9)	81,366	51,581
Change in fair value of derivatives (Note 5)	16,149	12,973
Total Expenses	$ 874,334	$ 886,409
Income before income taxes	4,633	41,482
Income tax benefit (expense)	133	(385)
Net income	**$ 4,766**	**$ 41,097**
Other Comprehensive Income/(Loss):		
Available for sale investments:		
Reclassification adjustment for net realized gains / (losses) on investments included in net income	13,100	(12,163)
Change in net unrealized losses on available for sale securities held	(151,791)	(52,059)
Change in foreign currency translation adjustment	—	326
Other comprehensive loss, gross of tax	(138,691)	(63,896)
Total income tax benefit/(expense) allocated to other comprehensive income/(loss)	—	—
Other comprehensive loss, net of tax	$ (138,691)	$ (63,896)
Total Comprehensive Loss	**$ (133,925)**	**$ (22,799)**

See accompanying notes to the Financial Statements

ASPEN BERMUDA LIMITED

STATEMENT OF CHANGES IN SHAREHOLDER'S EQUITY

For the years ended December 31, 2022 and 2021

(Expressed in thousands of United States dollars)

	For the years ended December 31,	
	2022	**2021**
	US$	**US$**
Common shares:		
Beginning and end of year	$ 1,000	$ 1,000
Contributed surplus:		
Beginning and end of year	1,329,000	1,329,000
Retained earnings (deficit):		
Beginning of year	(233,474)	(94,571)
Net income for the year	4,766	41,097
Dividends on ordinary shares	(120,000)	(180,000)
End of the year	$ (348,710)	$ (233,474)
Accumulated other comprehensive income:		
Cumulative foreign currency translation adjustments:		
Beginning of the year	445	119
Change for the year	—	326
End of the year	445	445
Unrealized (depreciation) appreciation on investments:		
Beginning of the year	34,058	98,280
Change for the year	(151,791)	(52,059)
Reclassification for net realized (losses) / gains included in net income	13,100	(12,163)
End of the year	$ (104,633)	$ 34,058
Total accumulated other comprehensive (loss) income	(104,188)	34,503
Total Shareholder's Equity	**$ 877,102**	**$ 1,131,029**

See accompanying notes to the Financial Statements

ASPEN BERMUDA LIMITED

STATEMENT OF CASH FLOWS

For the years ended December 31, 2022 and 2021

(Expressed in thousands of United States dollars)

	Twelve Months Ended December 31,	
	2022	**2021**
Cash flows from/(used in) operating activities:		
Net income	$ 4,766	$ 41,097
Adjustment to reconcile net income to net cash flows provided by operating activities:		
Net amortization of premium on investments	3,044	4,475
Net realized investment (gains) / losses - available for sale	13,100	(12,163)
Net unrealized and realized investment (gains) / losses - trading[1]	70,592	1,851
Change in fair value of other investments	(4,611)	(20,533)
Change in assets and liabilities:		
Loss reserves recoverable	$ (894,731)	$ (113,649)
Ceded unearned premiums	(30,615)	(38,069)
Premiums receivable	(191,138)	(187,857)
Funds withheld	159,280	(47,809)
Deferred policy acquisition costs	(29,157)	(28,324)
Derivatives at fair value	(23,749)	(647)
Right-of-use operating lease assets	1,670	(6,652)
Due from related party	(117,612)	(9,686)
Other assets	(6,088)	(5,831)
Loss and loss adjustment expense reserves	(82,851)	264,038
Unearned premium reserves	107,326	169,445
Reinsurance premiums payable	954,444	32,298
Operating lease liabilities	(1,615)	6,654
Liabilities under derivative contracts	13,918	(4,861)
Deferred gain	—	(6,984)
Income tax payable	(137)	369
Other liabilities	18,003	3,105
Net Cash flows from Operating Activities	$ (36,161)	$ 40,267

[1] Net unrealised and realised investment (gains) / losses - trading, includes unrealised and realised foreign exchange (gains) / losses.

See accompanying notes to the Financial Statements

ASPEN BERMUDA LIMITED

STATEMENT OF CASH FLOWS

For the years ended December 31, 2022 and 2021

(Expressed in thousands of United States dollars)

	Twelve Months Ended December 31, 2022	2021
Cash flows from/(used in) investing activities		
Purchases of fixed maturity investments - available for sale	(623,486)	(436,733)
Purchases of fixed maturity investments - trading	(301,325)	(402,982)
Proceeds from sales of fixed maturity investments - available for sale	743,328	411,595
Proceeds from sales of fixed maturity investments - trading	116,794	440,243
Net (purchases) of short-term investments - available for sale	2,503	(1,205)
Net (purchases) / sales of short-term investments - trading	779	34,103
Purchases of private investments	(81,904)	(43,823)
Proceeds from sale of private investments	77,225	179,921
Net Cash flows (used by) / provided by Investing Activities	$ (66,086)	$ 181,119
Cash flows from / (used in) financing activities		
Net loans to affiliated companies	(20,000)	(40,000)
Net loans from affiliated companies	—	75,000
Dividends paid	(45,000)	(180,000)
Net Cash flows used in Financing Activities	$ (65,000)	$ (145,000)
Net (decrease) increase in cash and cash equivalents	(167,247)	76,386
Cash and cash equivalents, beginning of period	279,587	203,201
Cash and cash equivalents, end of period	$ 112,340	$ 279,587

The accompanying notes are an integral part of these financial statements.

1. History

Aspen Bermuda Limited ("the Company"), formerly Aspen Insurance Limited, was incorporated under the laws of Bermuda, and is a wholly-owned subsidiary of Aspen Insurance Holdings Limited ("Holdings"). The Company is regulated by the Bermuda Monetary Authority ("BMA") and is licensed under the Insurance Act 1978, as amended (the "Insurance Act") and related regulations to write general business as a Class 4 insurer with effect from December 9, 2002. In October 2019, the Company established a branch in Zurich, Switzerland (the "Zurich Branch") to write prospective business effective January 1, 2020. In February 2021, the Company obtained approval to establish a branch in Singapore writing prospective business effective 1 April, 2021 (the "Singapore Branch", with the Zurich Branch and the Singapore Branch together, the "Branches").

The Company writes a diversified book of business which includes property, specialty and casualty reinsurance as well as direct insurance lines namely casualty and financial and professional lines. Cedants are mainly located in the United States of America, Europe and the Asia Pacific region.

The Company assumes certain risks of Aspen Insurance UK Limited ("Aspen UK"), a UK corporation, Aspen Specialty Insurance Company ("ASIC"), a North Dakota corporation, Aspen American Insurance Company ("AAIC"), a Texas corporation and, Aspen Underwriting Limited ("AUL") (as corporate member of our Lloyd's operations, which are managed by Aspen Managing Agency Limited "AMAL"), all of which are wholly-owned subsidiaries of the Aspen Group. The Company also participates in multiple quota share arrangements with Peregrine Re Limited, mainly in relation to its property reinsurance business.

Since February 2019, the Company has been a wholly-owned subsidiary of Highlands Bermuda Holdco, Ltd. ("Parent"), which holds all of the Company's ordinary shares. Parent, a Bermuda exempted company, is an affiliate of certain investment funds managed by affiliates of Apollo Global Management, Inc., a leading global investment manager (collectively with its subsidiaries, "Apollo"). The Company's preference shares and depositary shares are listed on the New York Stock Exchange ("NYSE") under the following symbols: AHL PRC, AHL PRD and AHL PRE.

2. Basis of preparation and significant accounting policies

Basis of preparation

The accompanying financial statements are prepared in accordance with United States Generally Accepted Accounting Principles ("U.S. GAAP").

The financial statements have been compiled on a going concern basis. The financial statements are presented in U.S. dollar thousands and all values are rounded to nearest dollar except where otherwise indicated.

(a) Use of estimates

Assumptions and estimates made by management have a significant effect on the amounts reported within the financial statements. The most significant of these relate to losses and loss adjustment expenses, reinsurance recoverables, gross written premiums and commissions which have not been reported to the Company such as those relating to proportional treaty reinsurance contracts, the fair value of derivatives and the fair value of other and privately-held investments. All material assumptions and estimates are regularly reviewed and adjustments made as necessary but actual results could be significantly different from those expected when the assumptions or estimates were made

Significant accounting policies are as follows:

2. Basis of preparation and significant accounting policies (continued)

(b) Investments

Fixed Income Securities

The fixed income securities portfolio comprises securities issued by governments and government agencies, corporate bonds, mortgage and other asset-backed securities and bank loans. Investments in fixed income securities are classified as available for sale or trading and are reported at estimated fair value in the balance sheets.

Investment transactions are recorded on the trade date with balances pending settlement reflected in the balance sheets under receivables for securities sold and accrued expenses and other payables for securities purchased, respectively. Fair values are based on quoted market prices and other data provided by third-party pricing services.

Short-term Investments

Short-term investments primarily comprise highly liquid debt securities with a maturity greater than three months but less than one year from the date of purchase and are held as part of the investment portfolio of the Company. Short-term investments are classified as either trading or available for sale and carried at estimated fair value.

Privately-held Investments

The Company's privately-held investments primarily comprise commercial mortgage loans, middle market loans, asset-backed securities and global corporate debt. These investments are classified as trading and are carried on the balance sheets at estimated fair value. Privately-held investments are initially valued at cost or transaction value which approximates fair value. In subsequent measurement periods, the fair values of these securities are primarily determined using internally developed discounted cash flow models. Interest income is accrued on the principal amount of the loan based on its contractual interest rate subject to it being probable that we will receive interest on that particular underlying loan. Interest income, amortization of premiums and discounts, and prepayment fees are reported in net investment income on the statements of income.

Other investments

Other investments represent the Company's investment in a real estate fund. Adjustments to the fair value are made based on the net asset value of the investment.

Gains and Losses

Realized gains or losses on the sale of investments are determined on the basis of the first in first out cost method and are recorded in revenue or expenses respectively. Unrealized gains and losses represent the difference between the cost, or the cost as adjusted by amortization of any difference between its cost and its redemption value ("amortized cost"), of the security and its fair value at the reporting date and are included within other comprehensive income for securities classified as available for sale and in realized and unrealized investment gains or losses in the statement of operations for securities classified as trading.

2. Basis of preparation and significant accounting policies (continued)

Credit Losses on Available for Sale Debt Securities.

Following the Company's adoption of ASU 2016-13 *"Financial Instruments - Credit Losses (Topic 326)"*, effective January 1, 2020, current expected credit losses (CECL) are recognized through an allowance account for available for sale debt securities, thereby permitting reversals of previously recognized credit losses through net income in the period they occur. Write-offs (of any previously recognized allowance for credit losses) are recorded when amounts are deemed uncollectible, or the Company intends to sell (or more likely than not will be required to sell) the debt security before recovery of the amortized cost basis. The amortized cost basis will be written down to the debt securities fair value through earnings. Credit losses are limited to the difference between the debt securities amortized cost basis and fair value ('fair-value floor'). Any decline in the debt securities fair value below the amortized cost basis that is not a result of a credit loss is recorded through other comprehensive income, net of applicable taxes.

Our credit loss models employ a discounted cash flow approach to evaluate whether a credit loss exists at the individual security level and are reviewed at each reporting period. This analysis excludes investments in U.S. Government / Agency bonds and U.S. Government Agency mortgage-backed securities due to being of 'high credit quality' based on the absence of risk. Available for sale debt securities that were initially purchased with credit deterioration (PCD), the amortized cost basis shall be considered to be the purchase price, plus any allowance for credit losses. Estimated credit losses shall be discounted at the rate that equates the present value of the purchaser's estimate of the security's future cash flows with the purchase price of the asset. Holding gains or losses are recognition through other comprehensive income, net of applicable taxes.

Net Investment Income

Investment income includes amounts received and accrued in respect of periodic interest ("coupons") payable to the Company by the issuer of fixed income securities, equity dividends and interest credited on cash and cash equivalents. It also includes amortization of premium and accretion of discount in respect of fixed income securities. Investment income also includes changes in fair value and income distribution from investments in real estate funds. Investment management and custody fees are charged against net investment income reported in the statement of operations.

(c) Cash and Cash Equivalents

Cash and cash equivalents are carried at fair value. Cash and cash equivalents comprise cash on hand, deposits held on call with banks and other short-term highly liquid investments due to mature within three months from the date of purchase and which are subject to insignificant risk of change in fair value.

(d) Derivative Financial Instruments

The Company enters into derivative instruments such as interest rate swaps and forward exchange contracts in order to manage certain market and credit risks. The Company records derivative instruments at fair value on the Company's balance sheets as either assets or liabilities, depending on their rights and obligations.

The accounting for the gain or loss due to the changes in the fair value of these instruments is dependent on whether the derivative qualifies as a hedge. If the derivative does not qualify as a hedge, the gains or losses are reported in earnings when they occur. If the derivative does qualify as a hedge, the accounting treatment varies based on the type of risk being hedged.

The loss portfolio transfer contract includes a funds withheld arrangement that provides variable interest expense based on the Aspen Group investment performance with an affiliate of Enstar Group Limited. As a result, this funds withheld arrangements is considered an embedded derivative and accounted for as an option-based derivative. Since the economic characteristics and risks of an embedded derivative feature are not clearly and closely related to the economic

2. Basis of preparation and significant accounting policies (continued)

characteristics and risks of the host contract, the embedded derivative is bifurcated and accounted for separately at fair value. The Company records subsequent changes in the embedded derivative fair value in the statement of operations.

(e) Leases

In the ordinary course of the business, the Company renews and enters into new leases for office real estate and other assets. At the lease inception date, the Company determines whether a contract contains a lease and recognizes operating lease Right-of-use assets and operating lease liabilities based on the present value of future minimum lease payments. As our leases do not provide an implicit interest rate, we use our incremental borrowing rate based on the information available at the commencement date to determine the present value of future payments. For all office real estate leases, rent incentives, including reduced-rent and rent free periods and contractually agreed rent increases during the lease term, have been included when determining the present value of future cash flows.

Right-of-use operating lease assets are reported at cost less accumulated depreciation on the consolidated balance sheets and depreciated over the lease term. The Company does not record office property and equipment leases with an initial term of 12 months or less (short-term) in the Company's consolidated balance sheets. Such short-term leases are expensed through the consolidated statement of operations.

Right-of-use operating lease assets are tested for impairments whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If the carrying value of an asset is impaired, it is reduced to the recoverable amount by an immediate charge to the income statement. The recoverable amount is the higher of an asset’s fair value less costs to sell and value in use.

(f) Premium revenues and related expenses

Premiums Earned

Premiums are recorded as written on the inception date of a policy. Premiums are primarily recognized as revenues proportionately over the coverage period. Premiums earned are recorded in the statements of operations, net of the cost of purchased reinsurance. Premiums written which are not yet recognized as earned premium are recorded in the balance sheets as unearned premiums, gross of any ceded unearned premiums. Written and earned premiums and the related costs include estimates for premiums which have not been finally determined. These relate mainly to contractual provisions for the payment of adjustment or additional premiums, premiums payable under proportional treaties and delegated underwriting authorities, and reinstatement premiums.

Adjustment and additional premiums are premiums charged which relate to experience during the policy term. The proportion of adjustable premiums included in the premium estimates varies between business lines with the largest adjustment premiums being in property and casualty reinsurance casualty insurance.

Premiums under proportional treaty contracts and delegated underwriting authorities are generally not reported to the Company until after the reinsurance coverage is in force. As a result, an estimate of these “pipeline” premiums is recorded. The Company estimates pipeline premiums based on projections of ultimate premium taking into account reported premiums and expected development patterns.

Reinstatement premiums on assumed excess of loss reinsurance contracts are provided based on experience under such contracts. Reinstatement premiums are the premiums charged for the restoration of the reinsurance limit of an excess of loss contract to its full amount after payment by the reinsurer of losses as a result of an occurrence. Reinstatement premiums are recognized as revenue in full at the date of loss, triggering the payment of the reinstatement premiums. Reinstatement premiums provide future insurance cover for the remainder of the initial policy term. An allowance for uncollectible premiums is established for possible non-payment of premium receivables, as deemed necessary.

2. Basis of preparation and significant accounting policies (continued)

Credit Losses on Underwriting Premiums Receivable

Underwriting premium receivable balances are reported net of an allowance for expected credit losses. The allowance, based on ongoing review and monitoring of amounts outstanding, historical loss data, including write-offs and other relevant factors, is charged to net income in the period the receivable is recorded and revised in subsequent periods to reflect changes in the Company's estimate of expected credit losses. Credit risk is partially mitigated by the Company's ability to cancel the policy if the policyholder does not pay the premium.

Losses and Loss Adjustment Expense

Losses represent the amount paid or expected to be paid to claimants in respect of events that have occurred on or before the balance sheets date. The costs of investigating, resolving and processing these claims are known as loss adjustment expenses ("LAE"). The statement of income records these losses net of reinsurance, meaning that gross losses and loss adjustment expenses incurred are reduced by the amounts recovered or expected to be recovered under reinsurance contracts.

Reinsurance

Written premiums, earned premiums, incurred claims, LAE and the amortization of deferred policy acquisition costs all reflect the net effect of assumed and ceded reinsurance transactions. Assumed reinsurance refers to the Company's acceptance of certain insurance risks that other insurance companies have underwritten. Ceded reinsurance arises from contracts under which other insurance companies agree to share certain risks with the Company.

Reinsurance accounting is followed when there is significant timing risk, significant underwriting risk and a reasonable possibility of significant loss.

Outward reinsurance premiums, which are paid when the Company purchases reinsurance or retrocessional coverage, are accounted for using the same accounting methodology as the Company uses for inwards premiums. Premiums payable under reinsurance contracts that operate on a "losses occurring during" basis are expensed over the period of coverage while those arising from "risks attaching during" policies are expensed over the earnings period of the underlying premiums written from the reinsured business. Adjustment premiums and reinstatement premiums in relation to outward reinsurance are accrued when it is determined that the ultimate losses will trigger a payment and recognized within premiums payable. Reinsurance and retrocession does not isolate the ceding company from its obligations to policyholders. In the event that a reinsurer or retrocessionaire fails to meet its obligations, the ceding company's obligations remain.

Retroactive Reinsurance Agreements

Retroactive reinsurance agreements are reinsurance agreements under which a reinsurer agrees to reimburse the Company as a result of past insurable events. For retroactive reinsurance purchased by the Company, the excess of the amounts ultimately collectible under the agreement over the consideration paid is recognized as a deferred gain liability which is amortized into income over the settlement period of the ceded reserves once the paid losses have exceeded the minimum retention. The amount of the deferral is recalculated each period based on actual loss payments and updated estimates of ultimate losses. If the consideration paid exceeds the ultimate losses collectible under the agreement, the net loss on the retroactive reinsurance agreement is recognized within income immediately.

Premiums payable for retroactive reinsurance coverage and meeting the conditions of reinsurance accounting are reported as reinsurance recoverables to the extent that those amounts do not exceed recorded liabilities relating to underlying reinsurance contracts. Premiums paid in excess of accounts receivable are charged to income.

2. Basis of preparation and significant accounting policies (continued)

Reserves

Insurance reserves are established for the total unpaid cost of claims and LAE in respect of events that have occurred by the balance sheets date, including the Company's estimates of the total cost of claims incurred but not yet reported ("IBNR"). Claim reserves are reduced for estimated amounts of salvage and subrogation recoveries. Estimated amounts recoverable from reinsurers on unpaid losses and LAE are reflected as assets.

For reported claims, reserves are established on a case-by-case basis within the parameters of coverage provided in the insurance policy or reinsurance agreement. For IBNR claims, reserves are estimated using a number of established actuarial methods to establish a range of estimates from which a management best estimate is selected. Both case and IBNR reserve estimates consider variables such as past loss experience, changes in legislative conditions, changes in judicial interpretation of legal liability, policy coverages and inflation.

As many of the coverages underwritten involve claims that may not be ultimately settled for many years after they are incurred, subjective judgments as to the ultimate exposure to losses are an integral and necessary component of the loss reserving process. The Company regularly reviews its reserves, using a variety of statistical and actuarial techniques to analyze current claims costs, frequency and severity data, and prevailing economic, social and legal factors. Reserves established in prior periods are adjusted as claim experience develops and new information becomes available. Adjustments to previously estimated reserves are reflected in the financial results of the period in which the adjustments are made.

The process of estimating required reserves does, by its very nature, involve considerable uncertainty. The level of uncertainty can be influenced by factors such as the existence of coverage with long duration payment patterns and changes in claims handling practices, as well as the factors noted above. Ultimate actual payments for claims and LAE could turn out to be significantly different from the Company's estimates.

Credit Losses on Reinsurance Recoverables

Amounts recoverable from reinsurers are estimated in a manner consistent with the claim liability with the reinsured business. The Company evaluates the financial condition of its reinsurers and monitors concentration of credit risk to minimize its exposure to significant losses from individual reinsurers. To further reduce credit exposure on reinsurance recoverables, the Company has received collateral, including letters of credit and trust accounts, from certain reinsurers. Following the adoption of ASC 326, an allowance is established for expected credit losses to be recognized over the life of the reinsurance recoverable. The allowance considers the current financial strength of the individual reinsurer and the amount of collateral held.

Acquisition Costs

The costs directly related to writing a (re)insurance policy are referred to as acquisition expenses and include commissions, premium taxes and profit commissions. With the exception of profit commissions, these expenses are incurred when a policy is issued, and only the costs directly related to the successful acquisition of new and renewal insurance and reinsurance contracts are deferred and amortized over the same period as the corresponding premiums are recorded as revenues. Profit commissions are estimated based on the related performance criteria evaluated at the balance sheets date, with subsequent changes to those estimates recognized when they occur. Commissions received related to reinsurance premiums ceded are netted against broker commissions in determining acquisition costs eligible for deferral.

On a regular basis a premium deficiency analysis is performed of the deferred acquisition costs in relation to the expected recognition of revenues, including anticipated investment income, and adjustments, if any, are reflected as period costs. Should the analysis indicate that the acquisition costs are unrecoverable, further analyses are performed to determine if a reserve is required to provide for losses which may exceed the related unearned premium.

2. Basis of preparation and significant accounting policies (continued)

General, Administrative and Corporate Expenses

These costs represent the expenses incurred in running the business and include, but are not limited to compensation costs for employees, rental costs, IT development and professional and consultancy fees. General and administrative costs directly attributable to the successful acquisition of business are deferred and amortized over the same period as the corresponding premiums are recorded as revenues. When reporting the results for its business segments, the Company includes expenses which are directly attributable to the segment plus an allocation of central administrative costs. Corporate expenses are not allocated to the Company's business segments as they typically do not fluctuate with the levels of premium written and are related to the Company's operations which include group executive costs, group finance costs, group legal and actuarial costs and certain strategic and other costs.

(g) Foreign Currencies Translation

The reporting currency of the Company is the U.S. Dollar. Effective January 1, 2022, management reassessed its functional currency determination in accordance with ASC 830, Foreign Currency Matters, as a result of significant changes in the Company's economic facts and circumstances, and concluded that the functional currency of its foreign branch operations had changed. Consequently, the Company has concluded that the U.S. Dollar is now the functional currency for all its branches. The change in the Company's functional currency determination has been applied on a prospective basis in accordance with ASC 830. Therefore, any translation gains and losses that were previously recorded in accumulated other comprehensive income through December 31, 2021 remain unchanged through December 31, 2021. From January 1, 2022, any net realized and unrealized gains/(losses) on translation are recognized in the consolidated statements of operations and other comprehensive income (loss). Investments classified as available-for-sale are recorded at fair value, the portion attributable to movements in exchange rates continues to be included within accumulated other comprehensive income.

Transactions in currencies other than the functional currency are measured at the exchange rate prevailing at the date of the transaction. Monetary assets and liabilities denominated in non-functional currencies are remeasured at the exchange rate prevailing at the balance sheets date and any resulting foreign exchange gains or losses are reflected in the consolidated statement of operations. Non-monetary assets and liabilities are remeasured to functional currency at historic exchange rates.

(h) Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and for operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. When the Company does not believe that, on the basis of available information, it is more likely than not that deferred tax assets will be fully recovered, it recognizes a valuation allowance against its deferred tax assets to reduce the deferred tax assets to the amount more likely than not to be realized. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

Furthermore, a tax benefit from a tax position may be recognized in the financial statements only if it is more-likely-than-not that the position is sustainable, based solely on its technical merits and consideration of the relevant tax authority's widely understood administrative practices and precedents.

2. Basis of preparation and significant accounting policies (continued)

(h) Income Taxes (continued)

The Company applies a portfolio approach to release the income tax effects in accumulated other comprehensive income. Under this approach, the income tax effects upon the sale of an available-for-sale debt security, settlement of hedged transactions and upon foreign currency translation adjustments as of each period end, are determined under the intraperiod tax allocation approach. Any tax effects remaining in accumulated other comprehensive income are only released when the entire portfolio is liquidated, sold or extinguished.

(i) Accounting Pronouncements

Accounting Pronouncements Adopted

In March 2022, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update No. ASU 2022-02, *"Financial Instruments—Credit Losses (Topic 326*)". This update is as a result of a post implementation review done on the issued ASU No.2016-13*, Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, addressing "troubled debt restructuring by creditors" and "vintage disclosures". This update will be effective for fiscal years beginning after December 15, 2022 and interim periods within those fiscal years. During the year, the Company evaluated and considered the provisions of this ASU update and has concluded that there is no material impact on the consolidated financial statements for the current financial year.

Accounting Pronouncements Not Yet Adopted

In March 2022, the FASB issued Accounting Standards Update No. ASU 2022-01, *"Derivatives and Hedging (Topic 815): Fair Value Hedging, Portfolio Layer Method*". This update addresses concerns from entities and practitioners regarding the 'last-of-layer' method of accounting incorporated in update No. ASU 2017-12, *"Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities"*, issued on 28 August, 2017. This method is meant to achieve fair value hedge accounting for interest rate risk hedges of portfolios of 'prepayable financial assets'. This ASU will be effective for fiscal years beginning after December 15, 2023 and interim periods within those fiscal years. During the year, the Company evaluated and considered the provisions of this ASU update and has concluded that there is no material impact on the financial statements for the current financial year.

In June 2022, the FASB issued Accounting Standards Update No. ASU 2022-03, *"Fair Value Measurement (Topic 820*)". This update is for entities that have investments in equity securities, measured at fair value, which are subject to a contractual sale restriction. This update will be effective for fiscal years beginning after December 15, 2024 and interim periods within those fiscal years. During the year, the Company evaluated and considered the provisions of this ASU update and has concluded that there is no material impact on the financial statements for the current financial year.

In September 2022, the FASB issued Accounting Standards Update No. ASU 2022-04, *"Liabilities- Supplier Finance Programs (Subtopic 405-50)"*. The update has been issued to enhance the transparency of supplier finance program disclosure for all entities that use these programs in connection with the purchase of goods and services. During the year, the Company evaluated and considered the provisions of this ASU update and has concluded that the update has no impact, as the Company does not enter into any such agreement.

In December 2022, the FASB issued Accounting Standards Update No. ASU 2022-05*, "Financial Services- Insurance (Topic 944*)". This update reduces the implementation costs and complexity with the adoption of Long Duration Insurance contracts (LDTI) that have been derecognized in accordance with the amendments in this update. These changes eliminate the need to reclassify a portion of previously recognized gains or losses to the LDTI transition adjustment as suggested in the previous ASU issued 2020-11. During the year, the Company evaluated and considered the provisions of this ASU update and has concluded that the update has no impact, as the Company does not write long-duration business.

2. Basis of preparation and significant accounting policies (continued)

(i) Accounting Pronouncements (continued)

In December 2022, the FASB issued Accounting Standards Update No. ASU 2022-06, *"Reference Rate Reform (Topic 848)".* This update defers the sunset date of Topic 848 (ASU 2020-04) from Dec 31, 2022 to Dec 31, 2024, after which entities will no longer be allowed to use the relief offered in Topic 848. During the year, the Company evaluated and considered the provisions of this ASU update and has concluded that there is no material impact on the financial statements for the current financial year.

Other accounting pronouncements were issued during the year ended December 31, 2022 which were either not relevant to the Company or did not impact the Company's financial statements.

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

3. Investments

The Company's Board of Directors approves the annual investment plan of the Company, which includes its investment strategy, in accordance with the investment strategy determined by the Board of Directors of Holdings and the investment policy and guidelines determined by the Investment Committee of the management of Holdings. The Company's Board of Directors supervises the Company's investment activity and administration and implementation of the investment strategy. The investment guidelines specify minimum criteria on the overall credit quality and liquidity characteristics of the portfolio. They include limitations on the size of certain holdings as well as restrictions on purchasing certain types of securities. Management and the Investment Committee review the Company's investment performance, its compliance with investment objectives and guidelines, and assess credit and market risk concentrations and exposures to issuers.

(a) Net Investment Income

The following table summarizes investment income for the twelve months ended December 31, 2022 and 2021:

	For the Twelve Months Ended	
	December 31, 2022	**December 31, 2021**
Fixed maturity investments	64,373	55,639
Short term investments	—	45
Cash and cash equivalents	1,228	(47)
Privately-held investments	9,883	15,859
Other investments	4,611	20,533
Investment income before expenses	80,095	92,029
Investment expenses	(4,166)	(6,342)
Net investment income	75,929	85,687

(b) Net Investment Gains (Losses)

The following table summarizes the net realized and unrealized investment gains and losses recorded in the statement of income and the change in unrealized gains and losses on investments recorded in other comprehensive income for the twelve months ended December 31, 2022, and 2021:

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

3. Investments (continued)

(b) Net Investment Gains (Losses) (continued)

	For the Twelve Months Ended	
	December 31, 2022	**December 31, 2021**
Available for sale short term investments and fixed maturities:		
Gross realized gains	$ 1,389	$ 13,800
Gross realized (losses)	(14,489)	(1,637)
Net change in current expected credit loss (CECL) Allowance	(1,737)	(542)
Trading portfolio short term investments and fixed maturities:		
Gross realized gains	85	4,221
Gross realized (losses)	(736)	(1,742)
Net change in gross unrealized gains /(losses)	(68,400)	(17,353)
Trading cash & cash equivalents		
Gross realized gains	—	101
Gross realized (losses)	—	(340)
Privately-held investments - Trading		
Gross realized gains	59	650
Gross realized (losses)	(42)	(13,808)
Net change in gross unrealized (losses) / gains	336	17,551
Net realized and unrealized investment gains	$ (83,535)	$ 901

Balance Sheets

(c) Fixed Income Securities and Short-Term Investments — Available For Sale

The following tables present the cost or amortized cost, gross unrealized gains and losses and estimated fair market value of available for sale investments in fixed income securities and short-term investments as at December 31, 2022 and December 31, 2021:

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

3. Investments (continued)

(c) Fixed Income Securities and Short-Term Investments — Available For Sale (Continued)

As at December 31, 2022	Amortized cost	Gross unrealized gains	Gross unrealized losses	Allowance for Credit Losses	Fair value
U.S. Government Securities	$ 397,778	$ 33	$ (19,592)	$ —	$ 378,219
U.S. Agency Securities	5,453	—	(260)	—	5,193
Municipal Securities	30,758	—	(1,802)	(195)	28,761
Corporate Securities	595,762	1,981	(42,309)	(2,075)	553,359
Non-agency commercial mortgage-backed securities	1,532	—	(234)	—	1,298
Foreign Government Securities	3,351	—	(172)	(10)	3,169
Agency Mortgage-backed Securities	280,170	15	(42,293)	—	237,892
Total	$ 1,314,804	$ 2,029	$ (106,662)	$ (2,280)	$ 1,207,891

As at December 31, 2021	Amortized cost	Gross unrealized gains	Gross unrealized losses	Allowance for Credit Losses	Fair value
U.S. Government Securities	$ 324,633	$ 11,976	$ (1,832)	$ —	$ 334,777
U.S. Agency Securities	5,453	389	—	—	5,842
Municipal Securities	29,276	870	(99)	(29)	30,018
Corporate Securities	637,791	19,152	(2,337)	(528)	654,078
Non-agency commercial mortgage-backed securities	1,534	64	—	—	1,598
Foreign Government Securities	3,369	128	(1)	(4)	3,492
Agency Mortgage-backed Securities	448,806	9,978	(4,216)	—	454,568
Total Fixed Income Maturities, Available for Sale	$ 1,450,862	$ 42,557	$ (8,485)	$ (561)	$ 1,484,373
Total Short-term Investments, Available for Sale	2,425	8	—	(1)	2,432
Total	$ 1,453,287	$ 42,565	$ (8,485)	$ (562)	$ 1,486,805

Current Expected Credit Loss ("CECL"). For the twelve months ended December 31, 2022, there was an increase in the CECL allowance on available-for-sale investments of $1.7 million (December 31, 2021 — $0.5 million).

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

3. Investments (continued)

(d) Fixed Income Securities, Short Term Investments, and Privately-held Investments — Trading

The following tables present the cost or amortized cost, gross unrealized gains and losses, and estimated fair market value of trading investments in fixed income securities, short-term investments, and privately-held investments as at December 31, 2022 and December 31, 2021:

As at December 31, 2022	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
U.S. Government Securities	$ 18,205	$ —	$ (290)	$ 17,915
Corporate Securities	84,934	61	(6,040)	78,955
High Yield Loans	5,000	—	(100)	4,900
Foreign Government Securities	32,015	—	(1,814)	30,201
Bond Backed by Foreign Government	12,208	—	(598)	11,610
Asset-backed Securities	589,223	195	(47,514)	541,904
Total Fixed Income Maturities, Trading	$ 741,585	$ 256	$ (56,356)	$ 685,485
Privately-held Investments - Trading				
Commercial mortgage loans	92,622	575	(675)	92,522
Middle market loans	50,686	19	(768)	49,937
Asset-backed securities	17,227	—	(1,102)	16,125
Equity securities	5,287	43	—	$ 5,330
Total privately-held-investments - Trading	$ 165,822	$ 637	$ (2,545)	$ 163,914
Total	$ 907,407	$ 893	$ (58,901)	$ 849,399

As at December 31, 2021	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
U.S. Government Securities	$ 2,000	$ —	$ (7)	$ 1,993
Corporate Securities	36,967	884	(434)	37,417
High Yield Loans	7,500	—	(150)	7,350
Foreign Government Securities	34,726	—	(450)	34,276
Bond Backed by Foreign Government	13,296	—	(156)	13,140
Asset-backed Securities	471,127	2,957	(1,154)	472,930
Total Fixed Income Maturities, Trading	$ 565,616	$ 3,841	$ (2,351)	$ 567,105
Total Short-term Investments, Trading	795	—	—	795
Privately-held Investments - Trading				
Commercial mortgage loans	80,109	13	(690)	79,432
Middle market loans	62,660	47	(1,528)	61,179
Asset-backed securities	18,750	—	(197)	18,553
Equity securities	2,653	111	—	2,764
Total privately-held-investments - Trading	$ 164,172	$ 171	$ (2,415)	$ 161,928
Total	$ 730,583	$ 4,012	$ (4,766)	$ 729,828

The Company classifies the financial instruments listed above as held for trading because this most closely reflects the facts and circumstances of the investments held.

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

3. Investments (continued)

(d) Fixed Income Securities, Short Term Investments, and Privately-held Investments — Trading (continued)

As at December 31, 2022, the Company had a 7.5% (2021: 6.9%) position in Privately-held Investments and a 6.1% (2021: 5.5%) position in a real estate fund totaling 13.6% (2021: 12.4%) of our Managed Portfolio.

(e) Privately-held investments

The Company has invested in privately-held investments, which primarily include commercial mortgage loans of $92.5 million and middle market loans of $49.9 million as at December 31, 2022 (December 31, 2021 – commercial mortgage loans of $79.4 million and middle market loans of $61.2 million).

Commercial Mortgage Loans. The commercial mortgage loans are related to investments in properties including apartments, hotels, office and retail buildings, other commercial properties and industrial properties. The commercial mortgage loan portfolio is diversified by property type, geographic region and issuer to reduce risks. As part of our investment process, we evaluate factors such as size, property type, and security to determine that properties are performing at a consistent and acceptable level to secure the related debt. The following table presents the type of commercial mortgage loans and geographic region as at December 31, 2022:

	Commercial mortgage loans			
	As at December 31, 2022		As at December 31, 2021	
	Fair Value	Percentage of Total	Fair Value	Percentage of Total
Property type				
Apartment	$ 53,191	58 %	$ 51,603	50 %
Hotels	18,821	20 %	18,769	12 %
Office building	13,353	14 %	9,060	21 %
Other commercial	1,789	2 %	—	17 %
Retail	3,323	4 %	—	— %
Industrial	2,045	2 %	—	— %
Total commercial mortgage loans	$ 92,522	100 %	$ 79,432	100 %
Geographic Region				
U.S Region	50,184	54 %	51,603	75 %
International Region	42,338	46 %	27,829	25 %
Total commercial mortgage loans	$ 92,522	100 %	$ 79,432	100 %

The primary credit quality indicator of commercial mortgage loans is loan performance. Non-performing commercial mortgage loans are generally 90 days or more past due. As of December 31, 2022, $nil of our commercial mortgage loans were non-performing (2021: $nil). Loan-to-value and debt service coverage ratios are measures we use to assess the risk and quality of commercial mortgage loans. The loan-to-value ratio is expressed as a percentage of the value of the loan relative to the value of the underlying property. A loan-to-value ratio in excess of 100% indicates the unpaid loan amount exceeds the underlying collateral.

The following table represents the loan-to-value ratio of the commercial mortgage loan portfolio as at December 31, 2022 and December 31, 2021:

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

3. Investments (continued)

(e) Privately-held investments (continued)

	As at December 31, 2022	As at December 31, 2021
Loan-to-value ratio		
50% to 60%	$ 69,861	$ 61,540
61% to 70%	22,661	17,892
Total commercial mortgage loans	$ 92,522	$ 79,432

The debt-service coverage ratio is measured by a property's net operating income as a multiple of its debt re-payments. A ratio of less than 1.0 reflects a property's operations is not sufficient to cover its debt payments. The following table represents the debt-service coverage ratio of the commercial mortgage loan portfolio as at December 31, 2022 and December 31, 2021:

	As at December 31, 2022	As at December 31, 2021
Debt-service coverage ratio		
Greater than 1.20x	$ 16,776	$ 9,060
1.00 - 1.20x	75,746	—
Subtotal	$ 92,522	$ 9,060
Other	—	70,372
Total commercial mortgage loans	$ 92,522	$ 79,432

Middle Market Loans. The middle market loans are investments in senior secured loan positions with full covenants, focused on the middle market in both U.S. and Europe. The middle market loan portfolio is diversified by industry type, geographic region and issuer to reduce risks. As part of our investment process, we evaluate factors such as size, industry and security to determine that loans are performing at a consistent and acceptable level to secure the related debt.

The following table presents the type of middle market loans and geographic region as at December 31, 2022 and December 31, 2021:

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

3. Investments (continued)

(e) Privately-held investments (continued)

	Middle market loans			
	As at December 31, 2022		As at December 31, 2021	
	Fair Value	Percentage of Total	Fair Value	Percentage of Total
Industry Type				
Materials	$ 19,799	40 %	$ 20,837	34 %
Financials	—	— %	6,057	10 %
Industrials	14,856	30 %	14,523	24 %
Consumer Discretionary	4,901	10 %	4,332	7 %
Energy	5,690	11 %	5,630	9 %
Consumer Staples	—	— %	4,938	8 %
Information Technology	4,691	9 %	4,862	8 %
Total middle market loans	$ 49,937	100 %	$ 61,179	100 %
Geographic Region				
U.S. Region	41,612	83 %	51,990	85 %
International Region	8,325	17 %	9,189	15 %
Total middle market loans	$ 49,937	100 %	$ 61,179	100 %

The primary credit quality indicator of middle market loans is loan performance. Non-performing middle market loans are generally 90 days or more past due. As of December 31, 2022, all of our middle market loans were performing. Loan-to-enterprise-value and fixed charge coverage ratios are measures we use to assess the risk and quality of middle market loans. The loan-to-enterprise-value ratio is expressed as a percentage of the value of the loan relative to the value of the business. A loan-to-enterprise-value ratio in excess of 100% indicates the unpaid loan amount exceeds the value of the underlying business.

The following table represents the loan-to-enterprise-value ratio of the middle market loan portfolio as at December 31, 2022 and December 31, 2021:

	As at December 31, 2022	As at December 31, 2021
Loan-to-enterprise-value ratio		
Less than 50%	$ 10,383	$ 20,110
50% to 60%	16,376	—
61% to 70%	23,178	11,646
71% to 80%	—	5,630
81% to 100%	—	11,959
Greater than 100%	—	11,834
Total middle market loans	$ 49,937	$ 61,179

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

3. Investments (continued)

(e) Privately-held investments (continued)

The fixed charge coverage ratio, based upon the most recent financial statements, is expressed as a percentage of a firm's earnings plus fixed charges to its fixed charges. Fixed charges include debt repayments, interest and equipment lease expenses. A fixed charge coverage ratio of less than 1.0 indicates a firm's operations do not generate enough income to cover its fixed charges.

The following represents the fixed charge coverage ratio of the middle market loan portfolio as at December 31, 2022 and December 31, 2021:

	As at December 31, 2022	As at December 31, 2021
Fixed charge coverage ratio		
Greater than 1.20x	$ 42,066	$ 25,740
1.00 - 1.20x	—	18,667
Less than 1.00x	7,871	16,772
Total middle market loans	$ 49,937	$ 61,179

Asset-backed securities. Our asset-backed securities portfolio of privately-held investments consists of non-U.S. based issuers that issue fixed rate notes that are backed by future flows from international credit card companies and the securities are performing.

Equity securities. Our equity securities portfolio of privately-held investments consists of a single non-U.S. based issuer that is a special purpose vehicle designed to grant a first lien right to the underlying senior notes within the structure. The underlying issuer is a financial services lender to middle market companies and this security is performing.

Other Investments. On December 20, 2017, the Company committed to, and during 2018 invested $100.0 million as a limited partner to a real estate fund, classified as other investments. As at December 31, 2022, the current fair value of the real estate fund is $134.6 million (2021: $129.9 million).

Fixed Income Securities. The scheduled maturity distribution of the Company's available for sale fixed income securities as at December 31, 2022 and December 31, 2021 is set forth below. Actual maturities may differ from contractual maturities because issuers of securities may have the right to call or prepay obligations with or without call or prepayment penalties.

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

3. Investments (continued)

As at December 31, 2022	**Amortized cost**	**Fair value**	**Weighted average rating by maturity**
Due within one year	$ 37,696	$ 37,535	AA+
Due after one year through five years	718,368	687,155	A+
Due after five years through ten years	272,468	240,079	A+
Due after ten years	4,570	3,931	A
	$ 1,033,102	$ 968,700	
Agency Mortgage-backed Securities	280,170	237,893	AA+
Non-agency Commercial Mortgage-backed Securities	1,532	1,298	AA+
Total	$ 1,314,804	$ 1,207,891	

As at December 31, 2021	**Amortized cost**	**Fair value**	**Weighted average rating by maturity**
Due within one year	$ 148,591	$ 149,556	AA-
Due after one year through five years	483,703	499,728	AA-
Due after five years through ten years	344,395	354,432	A+
Due after ten years	23,833	24,491	A-
	$ 1,000,522	$ 1,028,207	
Agency Mortgage-backed Securities	448,806	454,568	AA+
Non-agency Commercial Mortgage-backed Securities	1,534	1,598	AA+
Total	$ 1,450,862	$ 1,484,373	

Guaranteed Investments. As at December 31, 2022 and December 31, 2021, the Company held no investments which are guaranteed by mono-line insurers, excluding those with explicit government guarantees. The Company's exposure to other third-party guaranteed debt is primarily to investments backed by non-U.S. government guaranteed issuers.

Gross Unrealized Losses. The following tables summarize, by type of security, the aggregate fair value and gross unrealized loss by length of time the security has been in an unrealized loss position for the Company's available for sale portfolio as at December 31, 2022 and December 31, 2021:

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

3. Investments (continued)

December 31, 2022	0-12 months		Over 12 months		Total	
	Fair value	Gross unrealized loss	Fair value	Gross unrealized loss	Fair value	Gross unrealized loss
U.S. Government Securities	$ 345,844	$ (14,913)	$ 25,373	$ (4,679)	$ 371,217	$ (19,592)
U.S. Agency Securities	5,193	(260)	—	—	5,193	(260)
Municipal Securities	27,091	(1,737)	1,670	(260)	28,761	(1,997)
Non-agency commercial mortgage-backed securities	1,297	(234)	—	—	1,297	(234)
Corporate Securities	391,421	(27,323)	85,626	(17,061)	477,047	(44,384)
Foreign Government Securities	2,244	(55)	925	(128)	3,168	(183)
Agency Mortgage-backed Securities	128,162	(16,784)	109,094	(25,508)	237,256	(42,292)
Total	$ 901,252	$ (61,306)	$ 222,688	$ (47,636)	$1,123,940	$ (108,942)

December 31, 2021	0-12 months		Over 12 months		Total	
	Fair value	Gross unrealized loss	Fair value	Gross unrealized loss	Fair value	Gross unrealized loss
U.S. Government Securities	$ 25,851	$ (317)	$ 21,545	$ (1,514)	$ 47,396	$ (1,831)
Municipal Securities	7,552	(128)	—	—	7,552	(128)
Corporate Securities	133,335	(2,497)	6,194	(368)	139,529	(2,865)
Foreign Government Securities	1,066	(5)	—	—	1,066	(5)
Agency Mortgage-backed Securities	184,292	(4,216)	—	—	184,292	(4,216)
Total Fixed Income Maturities, Available for Sale	$ 352,096	$ (7,163)	$ 27,739	$ (1,882)	$ 379,835	$ (9,046)
Total Short Term, Available for Sale	555	—	—	—	555	—
Total	$ 352,651	$ (7,163)	$ 27,739	$ (1,882)	$ 380,390	$ (9,046)

4. Fair Value Measurements

The Company's estimates of fair value for financial assets and liabilities are based on the framework established in the fair value accounting guidance included in ASC Topic 820, "Fair Value Measurements and Disclosures." The framework prioritizes the inputs, which refer broadly to assumptions market participants would use in pricing an asset or liability, into three levels.

The Company considers prices for actively traded securities to be derived based on quoted prices in an active market for identical assets, which are Level 1 inputs in the fair value hierarchy. The majority of these securities are valued using prices supplied by pricing services.

The Company considers prices for other securities that may not be as actively traded which are priced via pricing services, vendors and broker-dealers, or with reference to interest rates and yield curves, to be derived based on inputs that are observable for the asset, either directly or indirectly, which are Level 2 inputs in the fair value hierarchy. The majority of these securities are also valued using prices supplied by pricing services.

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

4. Fair Value Measurements (continued)

The Company considers privately-held investments whose valuation is derived by internal valuation models to be based largely on unobservable inputs, which are Level 3 inputs in the fair value hierarchy.

The following tables present the level within the fair value hierarchy at which the Company's financial assets and liabilities are measured on a recurring basis as at December 31, 2022 and December 31, 2021:

	December 31, 2022			
	Level 1	Level 2	Level 3	Total
Available for Sale Financial Assets, at Fair Value				
U.S. Government Securities	$ 378,219	$ —	$ —	$ 378,219
U.S. Agency Securities	—	5,193	—	5,193
Municipal Securities	—	28,761	—	28,761
Corporate Securities	—	553,359	—	553,359
Foreign Government Securities	—	3,168	—	3,169
Non-agency Commercial Mortgage-backed Securities	—	1,298	—	1,297
Agency Mortgage-backed Securities	—	237,893	—	237,893
Total Fixed Income Securities Available for Sale, at fair value	$ 378,219	$ 829,672	—	$ 1,207,891
Held for Trading Financial Assets, at Fair Value				
U.S. Government Securities	17,915	—	—	17,915
Corporate Securities	—	78,955	—	78,955
Bond Backed by Foreign Government	—	11,610	—	11,610
Foreign Government Securities	10,640	19,561	—	30,201
Asset-backed	—	541,904	—	541,904
High Yield Loans	—	4,900	—	4,900
Total Fixed Income Securities Trading, at Fair Value	28,555	656,930	—	685,485
Other Investment (1)	—	—	—	134,557
Privately-held Investments Trading, at Fair Value	—	—	163,914	163,914
Total Investments held for Trading, at Fair Value	$ 28,555	$ 656,930	$ 163,914	$ 983,956
Other Financial Assets and liabilities, at Fair Value				
Derivatives at Fair Value - Foreign Exchange Contracts	—	29,181	—	29,181
Liabilities under Derivative Contracts - Foreign Exchange Contracts	—	(1,077)	—	(1,077)
Liabilities under Derivative Contracts - Embedded Derivatives	—	—	(19,971)	(19,971)
Total	$ 406,774	$ 1,486,630	$ 143,943	$ 2,199,980

(1) Other investments represents our investment in a real estate fund and is measured at fair value using the net asset value per share practical expedient. As a result this has not been classified in the fair value hierarchy. The fair value amounts presented in the table above are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the balance sheets. The investment in the real estate fund is subject to restrictions as detailed in Note 11(a), "Commitments and Contingencies."

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

4. Fair Value Measurements (continued)

	December 31, 2021			
	Level 1	Level 2	Level 3	Total
Available for Sale Financial Assets, at Fair Value				
U.S. Government Securities	$ 334,777	$ —	$ —	$ 334,777
U.S. Agency Securities	—	5,842	—	5,842
Municipal Securities	—	30,018	—	30,018
Corporate Securities	—	654,078	—	654,078
Foreign Government Securities	—	3,492	—	3,492
Non-agency Commercial Mortgage-backed Securities	—	1,598	—	1,598
Agency Mortgage-backed Securities	—	454,568	—	454,568
Total Fixed Income Securities Available for Sale, at Fair Value	334,777	1,149,596	—	1,484,373
Short Term Investments, Available for Sale, at fair Value	650	1,782	—	2,432
Total Investments Available for Sale, at fair value	$ 335,427	$ 1,151,378	$ —	$ 1,486,805
Held for Trading Financial Assets, at Fair Value				
U.S. Government Securities	1,993	—	—	1,993
Corporate Securities	—	37,417	—	37,417
Bond Backed by Foreign Government	—	13,140	—	13,140
Foreign Government Securities	11,942	22,334	—	34,276
Asset-backed	—	472,930	—	472,930
High Yield Loans	—	7,350	—	7,350
Total Fixed Income Securities Trading, at Fair Value	$ 13,935	$ 553,171	$ —	$ 567,106
Short-term Investments Trading, at Fair Value		795	—	795
Other Investment (1)	—	—	—	129,946
Privately-held Investments Trading, at Fair Value	—	—	161,928	161,928
Total Investments Trading, at Fair Value	$ 13,935	$ 553,966	$ 161,928	$ 859,775
Other Financial Assets, at Fair Value				
Derivatives at Fair Value - Foreign Exchange Contracts	—	5,432	—	5,432
Liabilities under Derivative Contracts - Foreign Exchange Contracts	—	(7,130)	—	(7,130)
Total	$ 349,362	$ 1,703,646	$ 161,928	$ 2,344,882

Transfers of assets into or out of a particular level are recorded at their fair values as of the end of each reporting period consistent with the date of the determination of fair value. During the twelve months ended December 31, 2022, no transfers were made between Level 1, Level 2 and Level 3. (December 31, 2021, $8.3 million was transferred from Level 2 to Level 3 due to a change in pricing methodology. No other transfers were made between Level 1, Level 2 and Level 3).

As at December 31, 2022, there were privately-held investments worth $163.9 million (December 31, 2021 — $161.9 million) classified as Level 3.

The following table presents a reconciliation of the beginning and ending balances for all assets and liabilities measured at fair value on a recurring basis using Level 3 inputs for the twelve months ended December 31, 2022:

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

4. Fair Value Measurements (continued)

Twelve Months Ended December 31, 2022	Balance at beginning of year	Purchases and issuances	Transfer in/ (out)	Settlements and sales	Increase / (decrease) in fair value included net income	Balance at end of year	Change in unrealized investment gains (losses) relating to assets held at end of year
Privately-held Investments - Trading							
Commercial mortgage loans	$ 79,432	$ 76,653	$ —	$ (61,506)	$ (2,057)	$ 92,522	$ 577
Middle market loans	61,179	171	—	(11,748)	335	49,937	731
Asset-backed securities	18,553	—	—	(1,524)	(904)	16,125	(905)
Equity securities	2,764	5,081	—	(2,446)	(69)	5,330	(68)
Total Level 3 Assets	$ 161,928	$ 81,905	$ —	$ (77,224)	$ (2,695)	$ 163,914	$ 335
Liabilities							
Liabilities under Derivative Contracts - Embedded Derivatives	$ —	$ (10,795)	$ —	$ —	$ (9,176)	$ (19,971)	
Total Level 3 Liabilities	$ —	$ (10,795)	$ —	$ —	$ (9,176)	$ (19,971)	

Valuation of Fixed Income Securities. The Company's fixed income securities are classified as either available for sale or trading and are carried at fair value. As at December 31, 2022 and December 31, 2021, the Company's fixed income securities were valued by pricing services or broker-dealers using standard market conventions. The market conventions utilize market quotations, market transactions in comparable instruments and various relationships between instruments including, but not limited to, yield to maturity, dollar prices and spread prices in determining value.

Independent Pricing Services. The underlying methodology used to determine the fair value of securities in the Company's available for sale and trading portfolios is by the pricing services. Pricing services will gather observable pricing inputs from multiple external sources, including buy and sell-side contacts and broker-dealers, in order to develop their internal prices.

Pricing services provide pricing for less complex, liquid securities based on market quotations in active markets. Pricing services supply prices for a broad range of securities including those for actively traded securities, such as Treasury and other Government securities, in addition to those that trade less frequently or where valuation includes reference to credit spreads, pay down and prepay features and other observable inputs. These securities include Government agency, municipals, corporate and asset-backed securities.

For securities that may trade less frequently or do not trade on a listed exchange, these pricing services may use matrix pricing consisting of observable market inputs to estimate the fair value of a security. These observable market inputs include: reported trades, benchmark yields, broker-dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers, reference data, and industry and economic factors. Additionally, pricing services may use a valuation model such as an option adjusted spread model commonly used for estimating fair values of mortgage-backed and asset-backed securities. The Company does not derive dollar prices using an index as a pricing input for any individual security.

4. Fair Value Measurements (continued)

Broker-Dealers. The Company obtains quotes from broker-dealers who are active in the corresponding markets when prices are unavailable from independent pricing services or index providers. Generally, broker-dealers value securities through their trading desks based on observable market inputs. Their pricing methodologies include mapping securities based on trade data, bids or offers, observed spreads and performance of newly issued securities. They may also establish pricing through observing secondary trading of similar securities. Quotes from broker-dealers are non-binding.

The Company obtains prices for all of its fixed income investment securities via its third-party accounting service provider, and in the majority of cases receiving a number of quotes so as to obtain the most comprehensive information

available to determine a security's fair value. A single valuation is applied to each security based on the vendor hierarchy maintained by the Company's third-party accounting service provider.

As at December 31, 2022, the Company obtained an average of 2.7 quotes per fixed income investment compared to 2.2 quotes at December 31, 2021. The Company, in conjunction with its third-party accounting service provider, obtains an understanding of the methods, models and inputs used by the third-party pricing service and index providers to assess the ongoing appropriateness of vendors' prices. The Company and its third-party accounting service provider also have controls in place to validate that amounts provided represent fair values. Processes to validate and review pricing include, but are not limited to:

- Quantitative analysis (e.g., comparing the quarterly return for each managed portfolio to its target benchmark, with significant differences identified and investigated);
- Comparison of market values obtained from pricing services and broker-dealers against alternative price sources for each security where further investigation is completed when significant differences exist for pricing of individual securities between pricing sources;
- Initial and ongoing evaluation of methodologies used by outside parties to calculate fair value; and
- Comparison of the fair value estimates to the Company's knowledge of the current market.

Prices obtained from pricing services and broker-dealers are not adjusted by us; however, prices provided by a pricing service, or broker-dealer in certain instances may be challenged based on market or information available from internal sources, including those available to the Company's third-party investment accounting service provider. Subsequent to any challenge, revisions made by the pricing service or broker-dealer to the quotes are supplied to the Company's investment accounting service provider.

Management reviews the vendor hierarchy maintained by the Company's third-party accounting service provider in order to determine which price source provides the most appropriate fair value (i.e., a price obtained from a pricing service with more seniority in the hierarchy will be used over a less senior one in all cases). The hierarchy level assigned to each security in the Company's available for sale and trading portfolios is based upon its assessment of the transparency and reliability of the inputs used in the valuation as of the measurement date. The hierarchy of pricing services is determined using various qualitative and quantitative points arising from reviews of the vendors conducted by the Company's third-party accounting service provider. Vendor reviews include annual onsite due diligence meetings with index providers and pricing services vendors covering valuation methodology, operational walkthroughs and legal and compliance updates.

Fixed Income Securities. Fixed income securities are traded on the over-the-counter ("OTC") market based on prices provided by one or more market makers in each security. Securities such as U.S. Government, U.S. Agency, Foreign Government and investment grade corporate bonds have multiple market makers in addition to readily observable market value indicators such as expected credit spread, except for Treasury securities, over the yield curve. The Company uses a variety of pricing sources to value fixed income securities including those securities that have pay down/prepay features such as mortgage-backed securities and asset-backed securities in order to ensure fair and accurate pricing. The fair value estimates for the investment grade securities in the Company's portfolio do not use significant unobservable inputs or modeling techniques.

4. Fair Value Measurements (continued)

U.S. Government and Agency Securities. U.S. government and agency securities consist primarily of bonds issued by the U.S. Treasury and corporate debt issued by agencies such as the Federal National Mortgage Association ("FNMA"), the Federal Home Loan Mortgage Corporation ("FHLMC") and the Federal Home Loan Bank. As the fair values of U.S. Treasury securities are based on unadjusted market prices in active markets, they are classified within Level 1. The fair values of U.S. government agency securities are priced using the spread above the risk-free yield curve. As the yields for the risk-free yield curve and the spreads for these securities are observable market inputs, the fair values of U.S. government agency securities are classified within Level 2.

Municipal Securities. The Company's municipal portfolio consist of bonds issued by U.S. domiciled state and municipality entities. The fair value of these securities is determined using spreads obtained from broker-dealers, trade prices and the new issue market which are Level 2 inputs in the fair value hierarchy. Consequently, these securities are classified within Level 2.

Non-U.S. Government. The issuers for securities in this category are non-U.S. governments and their agents including, but not limited to, the U.K., Australia, Canada, France and Germany. The fair values of certain non-U.S. government bonds, primarily sourced from international indices, are based on unadjusted market prices in active markets and are therefore classified within Level 1. The remaining non-U.S. government bonds are classified within level 2 as they are not actively traded. The fair values of the non-U.S. agency securities, again primarily sourced from international indices, are priced using the spread above the risk-free yield curve. As the yields for the risk-free yield curve and the spreads for these securities are observable market inputs, the fair values of non-U.S. agency securities are classified within Level 2.

Corporate. Corporate securities consist primarily of short-term, medium-term and long-term debt issued by U.S. and foreign corporations covering a variety of industries and are generally priced by index providers and pricing vendors. Some issuers may participate in government programs which guarantee timely payment of principal and interest in the event of a default. The fair values of these securities are generally determined using the spread above the risk-free yield curve. Inputs used in the evaluation of these securities include credit data, interest rate data, market observations and sector news, broker-dealer quotes and trade volumes. In addition, corporate securities include a portion of the EMD portfolio. The Company classifies all of these securities within Level 2.

Mortgage-backed Securities. Residential and commercial mortgage-backed securities consist of bonds issued by the Government National Mortgage Association, the FNMA and the FHLMC as well as private non-agency issuers. The fair values of these securities are determined through the use of a pricing model (including Option Adjusted Spread) which uses prepayment speeds and spreads to determine the appropriate average life of the mortgage-backed security. These spreads are generally obtained from broker-dealers, trade prices and the new issue market. As the significant inputs used to price mortgage-backed securities are observable market inputs, these securities are classified within Level 2.

Asset-backed Securities. Asset-backed securities are securities backed by notes or receivables against assets other than real estate. The underlying collateral for the Company's asset-backed securities consists mainly of student loans, automobile loans and credit card receivables. These securities are primarily priced by index providers and pricing vendors. Inputs to the valuation process include broker-dealer quotes and other available trade information, prepayment speeds, interest rate data and credit spreads. The Company classifies these securities within Level 2.

Short-term Investments. Short-term investments consist of highly liquid debt securities with a maturity greater than three months but less than one year from the date of purchase. Short-term investments are classified as either trading or available for sale according to the facts and circumstances of the investment held. Short-term investments are valued in a manner similar to the Company's fixed maturity investments and are classified within Levels 1 and 2.

Privately-Held Investments. Privately-held investments are initially valued at cost or transaction value which approximates fair value. In subsequent measurement periods, the fair values of these securities are determined using internally developed discounted cash flow models. These models include inputs that are specific to each investment. The inputs used in the fair value measurements include dividend or interest rates and appropriate discount rates. The selection

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

4. Fair Value Measurements (continued)

of an appropriate discount rate is judgmental and is the most significant unobservable input used in the valuation of these securities. A significant increase (decrease) in this input in isolation could result in significantly lower (higher) fair value measurement for privately-held investments. In order to assess the reasonableness of the inputs the Company uses in the discounted cash flow models, the Company maintains an understanding of current market conditions, issuer specific information that may impact future cash flows as well as collaboration with independent vendors for most securities to assess the reasonableness of the discount rate being used.

The following table summarizes the quantitative inputs and assumptions used for financial assets and liabilities categorized as Level 3 under the fair value hierarchy as at December 31, 2022:

December 31, 2022	Fair Value	Valuation Techniques	Unobservable Inputs	Ranges	Weighted Average
Privately-held investments - Trading					
Commercial Mortgage Loans	$61,402	Discounted cash flow	Discount rate	6.2% - 9.4%	7.3 %
Commercial Mortgage Loans	5,558	Transaction Value	n/a	n/a	n/a
Commercial Mortgage Loans	25,562	Liquidation value	n/a	n/a	n/a
Middle Market Loans	49,937	Discounted cash flow	Discount rate	9.7% - 13.5%	11.9 %
Asset-backed securities	16,125	Discounted cash flow	Discount rate	7.3% - 9.3%	8.1 %
Equity securities	5,330	Discounted cash flow	Discount rate	9.0% - 12.5%	9.1 %
Total	$163,914				

Foreign Exchange Contracts. The foreign exchange contracts which the Company uses to mitigate currency risk are characterized as OTC due to their customized nature and the fact that they do not trade on a major exchange. These instruments trade in a very deep liquid market, providing substantial price transparency and accordingly are classified as Level 2.

Other investments. The Company's other investments represent our investment in a real estate fund. Adjustments to the fair value are made based on the net asset value of the investment. The net valuation criteria established by the manager of such investments are established in accordance with the governing documents and the asset manager's valuation guidelines, which consider a two part approach: the discounted cash flows approach and the performance multiple approach, which uses a multiple/capitalization rate derived from market metrics from comparable companies or assets to produce operating performance metrics. Alternative valuation methodologies may be employed for investments with unusual characteristics.

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5. Derivative Financial Instruments

The following table summarizes information on the location and amounts of derivative fair values on the balance sheets as at December 31, 2022 and 2021:

		December 31, 2022		December 31, 2021	
Derivatives not designated as Hedging Instruments under ASC 815	**Balance Sheets Location**	**Notional Amount**	**Fair Value**	**Notional Amount**	**Fair Value**
Foreign Exchange Contracts	Derivatives at fair value	583,637	29,181	213,435	5,432
Foreign Exchange Contracts	Liabilities under derivative contracts	112,730	(1,077)	335,026	(7,130)
Loss Portfolio Transfer Liability - Embedded Derivative	Liabilities under derivative contracts	—	(19,971)	—	—

The following table provides the total unrealized and realized gains (losses) recorded in earnings for the twelve months ended December 31, 2022 and 2021:

		Amount of (Loss) / Gain Recognized in Income	
Derivatives not designated as Hedging Instruments under ASC 815	**Location of (Loss) / Gain Recognized in Income**	**Year Ended December 31, 2022**	**Year Ended December 31, 2021**
Foreign Exchange Contracts	Change in fair value of derivatives	$ (16,149)	$ (12,973)

Foreign Exchange Contracts. The Company uses foreign exchange contracts to manage foreign currency risk associated with our operating expenses but also foreign exchange risk associated with net assets or liabilities in currencies other than the U.S. dollar. A foreign exchange contract involves an obligation to purchase or sell a specified currency at a future date at a price set at the time of the contract. Foreign exchange contracts will not eliminate fluctuations in the value of the Company's assets and liabilities denominated in foreign currencies but rather allow it to establish a rate of exchange for a future point in time.

As at December 31, 2022, the Company held foreign exchange contracts that were not designated as hedging under ASC 815 with an aggregate nominal amount of $696.4 million (2021 — $548.5 million). The foreign exchange contracts are recorded as derivatives at fair value in the balance sheets with changes recorded as a change in fair value of derivatives in the statement of operations. For the twelve months ended December 31, 2022, the impact of foreign exchange contracts on net income was a loss of $16.1 million (December 31, 2021 — $13.0 million loss).

Embedded derivative on loss portfolio contract. The loss portfolio transfer contract includes a funds withheld arrangement that provides returns to the reinsurer based on Aspen's investment performance, guaranteeing a minimum of 1.75% return. Such funds withheld arrangements are examples of embedded derivatives and therefore this instrument is accounted for as an option-based derivative. For the twelve months ended December 31, 2022, the amount recognized as a change in fair value of derivatives in the consolidated statement of operations is $20.0 million (December 31, 2021 — $Nil).

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

6. Deferred Acquisition Costs

The following table represents a reconciliation of beginning and ending deferred policy acquisition costs for the twelve months ended December 31, 2022 and 2021:

	Twelve Months Ended	
	December 31, 2022	December 31, 2021
Balance at the beginning of the period	$ 64,729	36,405
Acquisition costs deferred	267,121	223,642
Amortization of deferred policy acquisition costs	(237,964)	(195,318)
Balance at the end of the period	$ 93,886	64,729

7. Reserve for losses and loss adjustment expenses

The following table represents a reconciliation of beginning and ending loss and LAE reserves for the years ended December 31, 2022 and 2021:

	December 31, 2022	December 31, 2021
Gross reserves as at January 1	$ 3,092,128	$ 2,828,090
Loss reserves recoverable as at January 1	948,841	835,192
Net reserves as at January 1	$ 2,143,287	$ 1,992,898
Net loss and LAE expenses (disposed)[2]	(1,429,881)	(827)
Net losses incurred related to:		
Current year	574,596	585,941
Prior years	(35,741)	40,596
Total net incurred losses	$ 538,855	$ 626,537
Net paid losses related to:		
Current year	(59,217)	(60,843)
Prior years	(23,956)	(342,050)
Total net paid losses	$ (83,173)	$ (402,893)
Foreign exchange and other	(3,383)	(72,428)
Total net reserves as at December 31	1,165,705	2,143,287
Loss recoverable as at December 31	1,843,572	948,841
Total gross reserves as at December 31	$ 3,009,277	$ 3,092,128

[2] Net loss and LAE expenses disposed includes the adverse development cover reinsurance agreement providing $461.0 million (2020: $423.5 million of cover. The adverse development cover is detailed in Note 8., "Reinsurance".

7. Reserve for losses and loss adjustment expenses (continued)

For the twelve months ended December 31, 2022, there was net favorable prior year loss development of $35.7 million. The favourable development was in Casualty and Property Reinsurance, and Financial and Professional lines insurance. This favourable development was partially offset offset by strengthening in prior year Property Cat loss reserves caused by deterioration in EU Storm Bernd, Malaysian Floods and US Winterstorm reserves. For the twelve months ended December 31, 2021, there was net unfavorable loss development of $40.6 million.

Short Duration Contracts

The Company is required by U.S. GAAP to establish loss reserves for the estimated unpaid portion of the ultimate liability for losses and loss expenses (“ultimate losses”) under the terms of our policies and agreements with our insured and reinsured customers. Our loss reserves comprise the following components:

- the cost of claims reported to us but not yet paid known as case reserves (“case reserves”);
- Reserves to cover the anticipated cost of IBNR claims. Within this, we also include the potential development of reported claims; and
- the expenses associated with settling claims, including legal and other fees and the general expenses of administering the claims adjustment process, known as the loss adjustment expenses (“LAE”).

Prior to the selection of the reserves to be included in our financial statements, our actuarial team employs a number of techniques to determine the actuarial central estimate which is presented to the Holdings management-level Reserve Committee. The Committee reviews and evaluates the actuarial central estimate and provides input to management for its determination of the management best estimate, which provides the basis for management's recommendation to the Board of Directors of the Company regarding the reserve amounts to be recorded in the financial statements.

Case Reserves. For reported claims, reserves are established on a case-by-case basis within the parameters of coverage provided in the insurance policy or reinsurance agreement. The method of establishing case reserves for reported claims differs among our operations. With respect to our insurance operations, we are advised of potential insured losses and our claims handlers’ record reserves for the estimated amount of the expected indemnity settlement, loss adjustment expenses and cost of defense where appropriate. The reserve estimate reflects the judgment of the claims personnel and is based on claim information obtained to date, general reserving practices, the experience and knowledge of the claims personnel regarding the nature of the specific claim and where appropriate and available, advice from legal counsel, loss adjusters and other claims experts.

With respect to our reinsurance claims operations, claims handlers set case reserves for reported claims generally based on the claims reports received from our ceding companies and take into consideration our cedants’ own reserve recommendations and our prior loss experience with the cedant. Additional case reserves (“ACR”), in addition to the cedants’ own recommended reserves, may be established by us to reflect our estimated ultimate cost of a loss. ACRs are generally the result of either a claims handler’s own experience and knowledge of handling similar claims, general reserving practices or the result of reserve recommendations following an audit of cedants’ reserves.

Case reserves are based on a subjective judgment of facts and circumstances and are established for the purposes of internal reserving only. Accordingly, they do not represent a commitment to any course of conduct or admission of liability on our behalf in relation to any specific claim.

IBNR Reserves. The need for IBNR reserves arises from time lags between when a loss occurs and when it is actually reported and settled. By definition, we do not have specific information on IBNR claims so they need to be estimated by actuarial methodologies. IBNR reserves are therefore generally calculated at an aggregate level and cannot generally be identified as reserves for a particular loss or contract. We calculate IBNR reserves by class of business within each line of business. Where appropriate, analyses may be conducted on sub-sets of a class of business. IBNR reserves are calculated by projecting our ultimate losses on each class of business and subtracting paid losses and case reserves. IBNR reserves also cover the anticipated cost of claims incurred but not reported, within this we also include any potential development of reported claims. Estimates and judgments for new insurance and reinsurance lines of business are more difficult to make than those made for more mature lines of business because we have more limited historical information through December 31, 2022.

7. Reserve for losses and loss adjustment expenses (continued)

Sources of Information. Claims information received typically includes the loss date, details of the claim, the recommended reserve and reports from the loss adjusters dealing with the claim. In respect of pro rata treaties and any business written through managing general agents, we receive regular statements (bordereaux) which provide paid and outstanding claims information, often with large losses separately identified. Following widely reported loss events, such as catastrophes, we adopt a proactive approach to establish our likely exposure to claims by reviewing policy listings and contacting brokers and policyholders as appropriate.

Actuarial Methodologies

The main projection methodologies that are used by our actuaries are as follows:

- *Initial expected loss ratio ("IELR") method:* This method calculates an estimate of ultimate losses by applying an estimated loss ratio to an estimate of ultimate earned premium for each accident year. The estimated loss ratio may be based on pricing information and/or industry data and/or historical claims experience revalued to the year under review.
- *Bornhuetter-Ferguson ("BF") method:* The BF method uses as a starting point an assumed IELR and blends in the loss ratio, which is implied by the claims experience to date using benchmark loss development patterns on paid claims data ("Paid BF") or reported claims data ("Reported BF"). Although the method tends to provide less volatile indications at early stages of development and reflects changes in the external environment, it can be slow to react to emerging loss development and can, if the IELR proves to be inaccurate, produce loss estimates which take longer to converge with the final settlement value of loss.
- *Loss development ("Chain Ladder") method:* This method uses actual loss data and the historical development profiles on older accident years to project more recent, less developed years to their ultimate position.
- *Exposure-based method:* This method is typically used for specific large catastrophic events such as a major hurricane. All exposure is identified and we work with known market information and information from our cedants to determine a percentage of the exposure to be taken as the ultimate loss.

In addition to these methodologies, our actuaries may use other approaches depending upon the characteristics of the class of business and available data.

In general terms, the IELR method is most appropriate for classes of business and/or accident years where the actual paid or reported loss experience is not yet mature enough to modify our initial expectations of the ultimate loss ratios. Typical examples would be recent accident years for classes of business in casualty reinsurance. The BF method is generally appropriate where there are few reported claims and a relatively less stable pattern of reported losses. Typical examples would be our treaty risk excess class of business in our reinsurance segment and marine hull class of business in our insurance segment. The Chain Ladder method is appropriate when there are relatively stable patterns of loss emergence and a relatively large number of reported claims.

Reserving Procedures and Process. Our actuaries calculate the IELR, BF and Chain Ladder and, if appropriate, other methods for each class of business and each accident year. They then calculate a single point actuarial central estimate ("ultimate") for each class of business and provide a stochastic distribution around the mean for each line of business. The actuarial methodologies involve significant subjective judgments reflecting many factors, including but not limited to, changes in legislative conditions, changes in judicial interpretation of legal liability policy coverages and inflation. Our actuaries collaborate with our underwriting, claims, legal and finance teams in identifying factors which are incorporated in their range of ultimates in which management's best estimate is most likely to fall.

There are no differences between our year-end and our quarterly internal reserving procedures and processes because our actuaries perform the basic projections and analyses described above for each class of business quarterly.

7. Reserve for losses and loss adjustment expenses (continued)

Selection of Reported Gross Reserves. The Holdings Reserve Committee, reviews and evaluates the actuarial central estimate and provides input to management of the Company for its determination of management best estimate of reserves for each line of business. Management selects the "management best estimate" by considering all the information provided to them and the risks and uncertainties associated with the actuarial mean best estimate. Management has to date selected its best estimate above that of the actuarial central estimate. The management's best estimate provides the basis for management's recommendation to the Audit Committee and the Board regarding the reserve amounts and related disclosures to be recorded in our financial statements.

Each class of business is reviewed in detail by management through its Reserve Committee at least once a year. The timing of such reviews varies throughout the year. Additionally, we review the emergence of actual losses relative to expectations every fiscal quarter for all classes of business. If warranted from this analysis, we may accelerate the timing of our detailed actuarial reviews.

Uncertainties. While the management selected reserves make a reasonable provision for unpaid loss and loss adjustment expense obligations, we note that the process of estimating required reserves, by its very nature, involves uncertainty and therefore the ultimate claims may fall outside the actuarial range. The level of uncertainty can be influenced by such factors as the existence of coverage with long duration reporting patterns and changes in claims handling practices, as well as the other factors described above.

Given many of the coverages underwritten involve claims that may not be ultimately settled for many years after they are incurred, subjective judgments as to the ultimate exposure to losses are an integral and necessary component of the loss reserving process. We review our reserves regularly, using a variety of statistical and actuarial techniques to analyze current claims costs, frequency and severity data, and prevailing economic, social and legal factors. Reserves established in prior periods are adjusted as claims experience develops and new information becomes available.

Estimates of IBNR are generally subject to a greater degree of uncertainty than estimates of the cost of settling claims already notified to us, where more information about the claim event is generally available. IBNR claims often may not be apparent to the insured until many years after the event giving rise to the claims has happened. Classes of business where the IBNR proportion of the total reserve is high, such as casualty insurance, will typically display greater variations between initial estimates and final outcomes because of the greater degree of difficulty of estimating these reserves.

Classes of business where claims are typically reported relatively quickly after the claim event tend to display lower levels of volatility between initial estimates and final outcomes. Reinsurance claims are subject to a longer time lag both in their reporting and in their time to final settlement. The time lag is a factor which is included in the projections to ultimate claims within the actuarial analyses and helps to explain why in general a higher proportion of the initial reinsurance reserves are represented by IBNR than for insurance reserves for business in the same class. Delays in receiving information from cedants are an expected part of normal business operations and are included within the statistical estimate of IBNR to the extent that current levels of backlog are consistent with historical data. Currently, there are no processing backlogs which would materially affect our financial statements.

Allowance is made, however, for changes or uncertainties which may create distortions in the underlying statistics or which might cause the cost of unsettled claims to increase or reduce when compared with the cost of previously settled claims, including:

- changes in our processes which might accelerate or slow down the development and/or recording of paid or incurred claims;
- changes in the legal environment (including challenges to tort reform);
- the effects of inflation;
- changes in the mix of business;
- the impact of large losses; and
- changes in our cedants' reserving methodologies.

7. Reserve for losses and loss adjustment expenses (continued)

These factors are incorporated in the recommended reserve range from which management selects its best point estimate. We take all reasonable steps to ensure that we utilize all appropriate information and actuarial techniques in establishing our IBNR reserves. However, given the uncertainty in establishing claims liabilities, it is likely that the final outcome will prove to be different from the original provision established at the balance sheet date. Changes to our previous estimates of prior period loss reserves impact the reported calendar year underwriting results by worsening our reported results if the prior year reserves prove to be deficient or improving our reported results if the prior year reserves prove to be redundant.

Loss Reserving Sensitivity Analysis. The most significant key assumptions identified in the reserving process are that (i) the historic loss development and trend experience is assumed to be indicative of future loss development and trends, (ii) the information developed from internal and independent external sources can be used to develop meaningful estimates of the initial expected ultimate loss ratios, and (iii) no significant losses or types of losses will emerge that are not represented in either the initial expected loss ratios or the historical development patterns.

Effect if Actual Results Differ From Assumptions. Given the risks and uncertainties associated with the process for estimating reserves for losses and loss expenses, management has performed an evaluation of the potential variability in loss reserves and the impact this variability may have on reported results, financial condition and liquidity. Because of the inherent uncertainties discussed above, we have developed a reserving philosophy which attempts to incorporate prudent assumptions and estimates.

Management's best estimate of the net reserve for losses and loss expenses as at December 31, 2022 was $1,166 million.

Management believes that the reserve for losses and loss expenses are sufficient to cover expected claims incurred before the reporting date on the basis of the methodologies and judgments used to support its estimates. However, there can be no assurance that actual payments will not vary significantly from total reserves. The reserve for losses and loss expenses and the methodology of estimating such reserve are regularly reviewed and updated as new information becomes known. Any resulting adjustments are reflected in income in the period in which they become known.

All of the business contained within the Company's Reinsurance segment represents treaty business that is assumed from other insurance and reinsurance companies, for which the Company does not have access to the underlying claim counts.

Further, this business includes both quota share and excess of loss treaty reinsurance, through which only a portion of each reported claim results in losses to the Company. As such, the Company has excluded claim count information from the claims development tables. Information about the average annual percentage payout of incurred claims, has also been omitted as management believes the information to be immaterial to the financial statements and would be inaccurate due to the quota share and excess of loss treaty business previously mentioned.

The Company has revalued all historical data using exchange rates at December 31, 2022 in order to mitigate the effect of foreign exchange on the development throughout the triangles. Due to currency mix changes from one year-end to the next, revaluation of incurred losses will result in different year-on-year movements within the triangles with each annual presentation. This approach for handling foreign exchange movements within the triangles differs somewhat from the underlying calculation of prior year development in the Company's financial statements due to the inclusion of the historical loss payments as well as reserves and the level of granularity used in the calculation.

Our reserves for loss and loss adjustment expenses relate to short-duration contracts with various characteristics (e.g., type of coverage, geography, claims duration). We have considered such information in determining the level of disaggregation for disclosures related to our short-duration contracts, as detailed in the table below:

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

7. Reserve for losses and loss adjustment expenses (continued)

Level of disaggregation	Lines of Business	Included product lines
Property Reinsurance	Property catastrophe reinsurance	Property catastrophe reinsurance is generally written on a treaty excess of loss basis where we provide protection to an insurer for an agreed portion of the total losses from a single event in excess of a specified loss amount.
	Other Property Reinsurance	Property risks written on excess of loss and proportional treaties, facultative or single risk reinsurance.
Casualty Reinsurance	U.S. treaty and casualty facultative reinsurance	Workers' compensation (including catastrophe), medical malpractice, general liability, auto liability, professional liability and excess liability including umbrella liability.
	International treaty	General liability, auto liability, professional liability, workers' compensation and excess liability.
Specialty Reinsurance	Credit and surety reinsurance	Mortgage reinsurance and insurance, marine, aviation, terrorism, engineering, cyber
	Agriculture reinsurance	Crop and multi-peril business
	Other specialty lines	Reinsurance treaties and some insurance policies covering policyholders' interests in marine, energy, aviation liability, space, contingency, terrorism, engineering, nuclear and personal accident.

We have determined the following product lines to be insignificant for disclosure purposes: (i) property insurance, (ii) casualty insurance, and (iii) financial and professional lines insurance. Such amounts are included as reconciling items under Insurance Lines.

The following tables show an analysis of incurred claims and allocated loss adjustment expenses, net of reinsurance and cumulative paid claims and allocated claims adjustment expenses, as at December 31, 2022, 2021, 2020, 2019, 2018, 2017, 2016, 2015, 2014 and 2013.

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

7. Reserve for losses and loss adjustment expenses (continued)

Property Reinsurance

Incurred Claims, IBNR and Loss Adjustment Expenses, Net of Reinsurance

	For the year ended December 31,										December 31, 2022
Accident Year	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**IBNR**
	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited		
2013	328,186	482,615	503,948	509,768	517,022	519,634	510,752	511,533	508,657	486,491	—
2014		319,118	367,506	357,229	352,306	342,527	343,608	335,207	341,528	313,314	—
2015			382,595	386,061	372,341	346,967	364,149	355,429	366,856	352,708	—
2016				405,301	477,504	478,476	469,610	458,144	452,338	440,033	—
2017					652,390	682,255	669,942	637,885	637,558	700,794	—
2018						345,570	336,951	381,901	398,470	389,219	—
2019							196,496	232,341	213,772	154,391	—
2020								197,051	191,394	194,619	36,102
2021									256,552	264,499	24,755
2022										263,597	117,920
Total										3,559,665	

Cumulative Paid Claims and Allocated Adjustment Expenses Net of Reinsurance

	For the year ended December 31,									
Accident Year	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	
2013	67,030	328,127	401,998	439,137	464,611	473,926	475,313	485,414	481,788	486,491
2014		70,952	162,461	241,949	266,122	282,665	293,848	302,684	307,176	313,314
2015			70,496	193,694	255,893	272,473	310,571	330,195	340,792	352,708
2016				93,029	295,304	363,882	401,541	425,596	434,108	440,033
2017					189,848	477,795	540,168	587,577	594,857	700,794
2018						64,479	279,293	362,501	362,580	389,219
2019							36,207	107,824	145,320	154,391
2020								22,767	66,299	96,071
2021									35,670	119,391
2022										35,384
Total										3,087,796

Outstanding liabilities for 2013 and subsequent years, net of reinsurance	471,869
All outstanding liabilities before 2013	—
Liabilities for claims and claims adjustment expenses, net of reinsurance	471,869

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

7. Reserve for losses and loss adjustment expenses (continued)

Casualty Reinsurance

Incurred Claims, IBNR and Loss Adjustment Expenses, Net of Reinsurance

	For the year ended December 31,										December 31, 2022
Accident Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	IBNR
	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited		
2013	328,826	474,825	450,459	435,071	415,968	427,610	419,151	394,176	388,374	359,820	—
2014		328,986	319,352	298,961	275,264	288,017	285,647	256,959	255,385	241,857	—
2015			375,316	342,624	306,980	344,803	361,504	324,142	325,698	280,281	—
2016				428,166	340,713	374,744	382,012	346,422	371,849	313,718	—
2017					445,557	342,656	353,554	321,181	329,974	276,163	—
2018						243,009	262,191	217,429	222,118	152,198	—
2019							211,472	188,796	188,209	113,518	—
2020								179,996	169,161	147,376	72,058
2021									187,759	193,853	120,672
2022										193,232	162,719
Total										2,272,016	

Cumulative Paid Claims and Allocated Expenses Net of Reinsurance

	For the year ended December 31,									
Accident Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	
2013	10,882	249,304	264,969	289,653	321,044	343,905	345,821	350,587	354,218	359,820
2014		15,550	54,089	90,831	122,603	155,246	192,447	216,541	222,178	241,857
2015			21,046	55,170	104,653	152,617	199,009	234,487	252,965	280,281
2016				33,373	87,921	133,499	197,734	235,433	267,158	313,718
2017					24,646	55,034	109,084	179,088	216,172	276,163
2018						14,181	52,375	88,980	126,259	152,198
2019							12,153	38,493	95,195	113,518
2020								9,728	32,601	48,804
2021									9,894	41,191
2022										8,858
Total										1,836,408
Outstanding liabilities for 2013 and subsequent years, net of reinsurance										435,608
All outstanding liabilities before 2013										—
Liabilities for claims and claims adjustment expenses, net of reinsurance										435,608

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

7. Reserve for losses and loss adjustment expenses (continued)

Specialty Reinsurance

Incurred Claims, IBNR and Loss Adjustment Expenses, Net of Reinsurance

	For the year ended December 31,										December 31, 2022
Accident Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	IBNR
	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited		
2013	103,953	157,838	153,758	154,380	154,135	153,642	150,708	148,189	146,277	144,010	—
2014		97,561	110,936	106,423	105,560	106,836	106,292	114,530	120,419	104,929	—
2015			128,002	144,557	143,647	127,768	127,711	122,453	131,098	134,143	—
2016				125,256	150,648	161,861	150,639	149,237	150,790	94,772	—
2017					167,372	167,790	168,079	162,737	154,318	107,607	—
2018						128,881	132,267	125,805	128,553	92,904	—
2019							98,279	103,497	104,944	67,351	—
2020								101,257	81,612	78,599	14,279
2021									95,084	95,714	48,780
2022										103,470	77,214
Total										1,023,499	

Cumulative Paid Claims and Allocated Adjustment Expenses Net of Reinsurance

	For the year ended December 31,									
Accident Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	Unaudited	
2013	17,182	124,686	133,352	139,297	141,596	141,566	141,407	143,737	143,199	144,010
2014		8,808	34,422	59,641	68,558	79,066	84,153	92,803	96,714	104,929
2015			6,250	30,385	72,034	88,633	108,631	117,261	123,040	134,143
2016				4,610	33,997	60,597	72,592	84,003	90,895	94,772
2017					9,614	52,620	78,193	97,430	101,621	107,607
2018						14,234	48,837	76,943	82,339	92,904
2019							21,606	43,823	52,281	67,351
2020								14,175	29,702	41,975
2021									13,065	30,042
2022										15,696
Total										833,429

Outstanding liabilities for 2013 and subsequent years, net of reinsurance	190,070
All outstanding liabilities before 2013	—
Liabilities for claims and claims adjustment expenses, net of reinsurance	190,070

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

7. Reserve for losses and loss adjustment expenses (continued)

Reconciliation of Incurred and Paid Claims Development to total Provision for Losses and LAE

	Twelve Months Ended December 31, 2022
Net outstanding liabilities:	
Property Reinsurance	471,869
Casualty Reinsurance	435,608
Specialty Reinsurance	190,070
Insurances lines	52,733
Other reinsurance balances recoverable [3]	(39,986)
Deferred Gain[4]	49,030
Unallocated claims incurred	6,381
Net loss and LAE	1,165,705
Reinsurance recoverable on unpaid losses:	
Reinsurance lines	1,315,881
Insurances lines	576,721
Deferred Gain	(49,030)
Total reinsurance recoverable on unpaid losses	1,843,572
Provision for losses and LAE at the end of the year	3,009,277

The following table provides a reconciliation of reinsurance recoverables on unpaid losses as at December 31, 2022, and 2021:

	As at December 31st,	
	2022	2021
Reinsurance recoverable excluding adverse development cover	549,380	518,139
Adverse development cover reinsurance agreement cover	1,343,222	423,500
Movement in reinsurance recoverables excess of attachment point	—	37,480
Less unamortized deferred gain on retroactive contracts	(49,030)	(30,278)
Reinsurance recoverable on unpaid losses	1,843,572	948,841

Credit Losses. The Company recognized a reduction in the Company's reinsurance recoverables under the current expected credit loss model ("CECL") by $0.1 million as a result of recognizing CECL through opening retained earnings for periods 2019 and prior. For the twelve months ended December 31, 2022 the allowance on reinsurance recoverables was $Nil (December 31, 2021 — $Nil).

The Company is potentially exposed to concentrations of credit risk in respect of amounts recoverable from reinsurers, refer to Note 12, "Concentrations of Credit Risk — Reinsurance recoverables" of these consolidated financial statements for more detail.

[3] Other reinsurance balances recoverable relate to balances to be recovered on net losses prior to and separate to the application of the terms of LPT.
[4] The deferred gain balance relates to the application of the terms of LPT which has been included in the reinsurance recoverable on losses and loss expenses in the balance sheet.

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

8. Reinsurance

The Company purchases retrocession and reinsurance to limit and diversify the Company's risk exposure and to increase its own insurance and reinsurance underwriting capacity. These agreements provide for recovery of a portion of losses and loss adjustment expenses from reinsurers. As is the case with most reinsurance contracts, the Company remains liable to the extent that reinsurers do not meet their obligations under these agreements. In line with its risk management objectives, the Company evaluates the financial condition of its reinsurers and monitors concentrations of credit risk.

Balances pertaining to reinsurance transactions are reported "gross" on the balance sheets, meaning that reinsurance recoverable on unpaid losses and ceded unearned premiums are not deducted from insurance reserves but are recorded as assets. For more information on reinsurance recoverables, refer to Note 12, "Concentrations of Credit Risk - Reinsurance recoverables" and Note 7, "Reserves for Losses and Loss Adjustment Expenses" of these financial statements.

The effect of assumed and ceded reinsurance on premiums written, premiums earned and insurance losses and loss adjustment expenses for the twelve months ended December 31, 2022, and 2021 was as follows:

	Twelve Months Ended	
	December 31, 2022	December 31, 2021
Premiums written:		
Direct	$ 114,608	$ 97,493
Assumed	1,316,542	1,229,676
Ceded	(401,512)	(381,332)
Net Premiums written	1,029,638	945,837
Premiums earned:		
Direct	$ 89,541	$ 76,865
Assumed	1,231,802	1,080,620
Ceded	(368,414)	(341,147)
Net Premiums earned	952,929	816,338
Incurred losses:		
Direct	$ 65,535	$ 40,865
Assumed	722,202	891,349
Ceded	(248,882)	(305,677)
Net Incurred losses	$ 538,855	$ 626,537

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

9. Related Party Transactions

As discussed in Note 1, in 2022 and 2021 the Company participated in a number of reinsurance agreements with affiliated companies.

Balances relating to these contracts, various intercompany loan arrangements and intercompany recharges are reflected in the balance sheets as at December 31, 2022 and 2021 as follows:

Balance Sheets	**As at December 31, 2022**	**As at December 31, 2021**
Assets		
Reinsurance recoverable on losses and loss expenses	$ 182,480	$ 113,218
Prepaid reinsurance premiums	(647)	4,579
Premiums receivable	106,643	81,139
Funds withheld	476,494	634,981
Deferred acquisition costs	42,694	30,747
Due from related party	222,117	159,504
Total Assets	$ 1,029,781	$ 1,024,168
Liabilities		
Reserves for losses and loss expenses	$ 2,013,788	$ 2,222,823
Unearned premium reserves	130,937	99,720
Reinsurance balances payable	134,397	55,729
Due to related party[5]	75,000	75,000
Total Liabilities	$ 2,354,122	$ 2,453,272

Revenues and expenses relating to these contracts, various intercompany loan arrangements and intercompany recharges, are incorporated in the statement of income for the years ended December 31, 2022 and 2021 as follows:

	For the 12 months ended	
Statement of Income	**December 31, 2022**	**December 31, 2021**
Revenues		
Gross premiums written	$ 593,721	$ 612,791
Premiums ceded	(100,299)	(82,167)
Net premiums written	493,422	530,624
Change in net unearned premiums	(36,443)	(42,538)
Net earned premium	456,979	488,086
Other underwriting income	10,501	2,558
Total Revenues	$ 467,480	$ 490,644
Expenses		
Losses and loss adjustment expenses	(302,932)	(320,714)
Amortization of deferred policy acquisition costs	(154,693)	(154,716)
Total Expenses	$ (457,625)	$ (475,430)

[5] See "Note 13 - Debt and Financing Arrangements" for more information regarding the debt owed from / to an affiliate company

9. Related Party Transactions (continued)

Relationships and Related Party Transactions with Apollo or its Affiliates

Apollo's indirect subsidiary, Apollo Asset Management Europe PC LLP ("AAME"), serves as the investment manager for the Company. A description of relationships we have with Apollo and its affiliates and transactions that have existed or that we have entered into with Apollo and its affiliates are described below.

Investment Management Relationships

AAME provides centralized asset management investment advisory and risk services for the portfolio of the Company's investments and investments of such subsidiaries pursuant to the investment management agreements ("IMAs") that have been entered into with AAME.

In addition, pursuant to the IMAs, AAME may engage sub-advisors or delegates to provide certain of the investment advisory and management services to the Company's subsidiaries. Such sub-advisors may include affiliates of AAME.

Under each of the IMAs, AAME will be paid an annual investment management fee (the "Management Fee") which will be based on a cost-plus structure. The "cost" is comprised of the direct and indirect fees, costs, expenses and other liabilities arising in or otherwise connected with the services provided under the IMAs. The "plus" component will be a mark-up in an amount of up to 25% determined based on an applicable transfer pricing study. The Management Fee will be subject to certain maximum threshold levels, including an annual fee cap of 15 bps of the total amount of investable assets. Affiliated sub-advisors, including AMI and AMC, will also earn additional fees for sub-advisory services rendered.

IMA and Management Consulting Fees

During the year ended December 31, 2022, the Company recognized IMA fees of $6.2 million (2021 - $6.4 million), of which $2.2 million (2021 - $2.2 million) remains payable to AAME and AMI at year end.

10. Share capital and additional paid-in capital

Share capital consists of 1,000,000 authorized, issued and fully paid common shares with a par value of $1 each.

Additional paid-in capital represents amounts contributed in cash by the shareholder in addition to the subscription to the issued share capital.

11. Commitments and Contingent Liabilities

(a) Restricted assets

The following table details the forms and value of Company's material restricted assets as at December 31, 2022 and 2021:

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

11. Commitments and Contingent Liabilities (continued)

(a) Restricted assets (continued)

	December 31, 2022	December 31, 2021
Regulatory trusts and deposits		
Affiliated transactions	$ 789,248	$ 803,835
Third party	758,144	788,769
Letters of credit / guarantees	379,062	418,505
Total restricted assets (excluding illiquid assets)	1,926,454	2,011,109
Other investments - real estate fund (illiquid assets)	134,557	129,946
Total restricted assets and illiquid assets	$ 2,061,011	$ 2,141,055
Cash and invested assets[6]	$ 2,322,927	$ 2,642,992
Percentage of cash and invested assets	88.7 %	81.0 %

Real Estate Fund. We invest in real estate funds which, as is typical for this type of investment, have lock-up periods. A lock-up period is the initial amount of time an investor is contractually required to remain invested before having the ability to redeem. As at December 31, 2022, the lock-up periods across these funds range from one quarter to several years. Thereafter these funds could also be redeemed on a pro-rata basis depending on the liquidity position of the fund. There are no assurances as to when the Company may be able to withdraw, in whole or in part, its redemption request from the fund.

The Company's current arrangements with our bankers for the issue of letters of credit require us to provide collateral in the form of cash and investments for the full amount of all secured and undrawn letters of credit that are outstanding. We monitor the proportion of our otherwise liquid assets that are committed to trust funds or to the collateralization of letters of credit. As at December 31, 2022 and 2021, these funds amounted to approximately 88.7% of the $2.3 billion and approximately 81.0% of the $2.6 billion of investable assets held by the Company, respectively. We do not consider that this unduly restricts our liquidity at this time.

The Company has established and must retain a multi-beneficiary U.S. trust fund for the benefit of its U.S. cedants so that they may take financial statement credit without the need to post cedant-specific security. The minimum trust fund amount is $20.0 million plus an amount equal to 100% of the Company's liabilities to its U.S. cedants which was $380.3 million and $450.4 million as at December 31, 2022 and 2021 respectively.

On December 1, 2022, AUL and the Company (acting as AUL's guarantor) amended and restated a Funds a Lloyd's Facility Agreement dated November 30, 2020, as amended on November 30, 2021, for the account of AUL. This facility provides that a maximum aggregate amount of up to $150 million of acceptable securities may be deposited with, and for the benefit of, Lloyd's on behalf of AUL to support AUL's Funds at Lloyd's requirements in connection with the 2023 year of account at Lloyd's.

(b) Operating Leases

As at December 31, 2022, the Company has recognized right-of-use operating lease assets of $6.8 million, net of impairment and operating lease liabilities of $6.9 million. Right-of-use operating lease assets comprise primarily of leased office real estate globally and other assets. For all office real estate leases, rent incentives, including reduced-rent

[6] Cash and invested assets comprise total investments, cash and cash equivalents, accrued interest, receivables for securities sold and payables for securities purchased.

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

11. Commitments and Contingent Liabilities (continued)

(b) Operating Leases (continued)

and rent-free periods and contractually agreed rent increases during the lease term, have been included when determining the present value of future cash flows.

The Company believes its office space is sufficient to conduct its operations for the foreseeable future in these locations. The Company has no lease transactions between related parties.

The Company has assessed their right-of-use lease assets for impairment and have concluded that there is no impairment charge within the period (2021 - $nil).

The following table summarizes the operating lease charge for the twelve months ended December 31, 2022 and 2021:

	For the Twelve Months Ended	
	December 31, 2022	December 31, 2021
Amortization charge on right-of-use operating leased assets	$ 1,634	$ 1,234
Interest on operating lease liabilities	387	109
Operating lease charge	$ 2,021	$ 1,343
Other information on operating leases:		
Cash payments included in the measurement of lease liability reported in operating cash flows	$ (2,007)	$ (1,311)
Right-of-use assets	6,811	8,481
Operating lease liability	$ (6,851)	$ (8,507)
Weighted average discount rate	5 %	5 %
Weighted average remaining lease term in years	3.87	4.74

Lease Liabilities. The following table summarizes the maturity of lease liabilities under non-cancellable leases as of December 31, 2022 and 2021:

	December 31, 2022	December 31, 2021
Operating leases — maturities		
2022	—	2,008
2023	2,050	2,051
2024	2,050	2,073
2025	1,886	1,885
2026	1,588	1,608
2027	—	—
Later years	—	—
Total minimum lease payments	7,574	9,625
Less imputed interest	(723)	(1,118)
Total lease liabilities	6,851	8,507

11. Commitments and Contingent Liabilities (continued)

(c) Contingent liabilities

In common with the rest of the insurance and reinsurance industry, the Company is also subject to litigation and arbitration in the ordinary course of business. The Company is regularly engaged in the investigation, conduct and defense of disputes, or potential disputes, resulting from questions of insurance or reinsurance coverage or claims activities. Pursuant to insurance and reinsurance arrangements, many of these disputes are resolved by arbitration or other forms of alternative dispute resolution. Such legal proceedings are considered in connection with estimating the Company's Insurance Reserves – Loss and Loss Adjustment Expenses, as provided on the Company's balance sheets.

As at December 31, 2022, it was the opinion of the Company's management based on available information that the probability of the ultimate resolution of pending or threatened litigation or arbitration having a material effect on the Company's financial condition, results of operations or liquidity would be remote.

12. Concentration of Credit Risk

The Company is potentially exposed to concentrations of credit risk in respect of amounts recoverable from reinsurers, investments and cash and cash equivalents, and insurance and reinsurance balances owed by the brokers with whom the Company transacts business.

The Company defines credit risk tolerances in line with the risk appetite set by our Board and they, together with the group's risk management function, monitor exposures to individual counterparties. Any exceptions are reported to senior management and the Board of Directors.

Reinsurance Recoverables

The total amount recoverable by the Company from reinsurers as at December 31, 2022 was $1,843.6 million (2021 — $948.8 million) of which $330.6 million was uncollateralized (2021 — $192.2 million). As at December 31, 2022, of the Company's uncollateralized reinsurance recoverables 41.0% (2021 — 47.9%) were with Aspen Insurance UK Limited which is rated A by A.M. Best and A- by S&P, 10.9% (2021 —7.2%) were with Everest Re which is rated A+ by A.M Best and A+ by S&P. There were no other exposures to uncollaterized reinsurance balances that exceeded 10% of the Company's total uncollaterized reinsurance balance as at December 31, 2022.

On June 16, 2016, the FASB issued ASU 2016-13, "Financial Instruments - Credit Losses (Topic 326)" which introduced a new impairment model, known as the current expected loss model ("CECL"), which is based on expected losses rather than incurred losses. Under the new credit loss model, the Company would recognize an allowance for its estimate of expected credit losses and this would apply to reinsurance receivables. Following the adoption of this ASU with effect from January 1, 2020, the Company recognized a reduction in the Company's reinsurance recoverables by $Nil as at December 31, 2022 (2021 - $Nil).

Underwriting premium receivables

The total underwriting premium receivable by the Company as at December 31, 2022 was $560.7 million (2021 — $369.6 million). As at December 31, 2022, none of the total premiums receivable balance has been due for settlement for more than one year (2021 — $Nil). The Company assesses the recoverability of premium receivables through a review of policies and the concentration of receivables by broker. Allowance for credit losses of $Nil as at December 31, 2022 (2021 — $Nil) for underwriting premiums unlikely to be collected.

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

12. Concentration of Credit Risk (continued)

Investments and cash and cash equivalents

The Company's investment policies include specific provisions that limit the allowable holdings of a single issue and issuer. As at December 31, 2022, there were no investments in any single issuer, other than the U.S. government and the Canadian government in excess of 2% of the aggregate investment portfolio.

Balances owed by brokers

The Company underwrites a significant amount of its business through brokers and a credit risk exists should any of these brokers be unable to fulfill their contractual obligations in respect of insurance or reinsurance balances due to the Company.

The following table shows the largest brokers that the Company transacted business with during the two years ended December 31, 2022 and the proportion of gross written premiums from each of those brokers.

	December 31, 2022	December 31, 2021
Aon Corporation	20.7 %	36.8 %
Guy Carpenter	13.5 %	24.0 %
Willis Group Holdings, Ltd.	7.6 %	22.9 %
Other brokers/non-broker sources[7]	58.2 %	16.3 %
Total	100.0 %	100.0 %
Gross written premiums ($ thousands)	$ 1,431,150	$ 1,327,169

13. Debt and Credit Facilities

a) Due from / to Related Party

On December 31, 2021, the Company entered into an Intercompany Subordinated Note Agreement as borrower with the lender and affiliate Aspen American Insurance Company ("AAIC"), a Texas domiciled insurance company for an amount of $75,000,000. The loan is under guaranty of Holdings and matures on December 31, 2024 with an annual interest rate of 1.75%, payable annually commencing December 31, 2022. The Company may prepay any or all amounts due under this loan at any time before the maturity date without penalty. The full amount outstanding, if not paid sooner, is due and payable on the maturity date.

On April 28, 2021, the Company entered into an Intercompany Loan Agreement as lender, with the borrower and affiliate Aspen Insurance Holdings Limited ("AIHL"), for an amount of $100,000,000. The loan matures on April 30, 2024 with a fixed interest rate of 1.85%, payable upon maturity. The Company may prepay any or all amounts due under this loan at any time before the maturity date without penalty. The full amount outstanding, if not paid sooner, is due and payable on the maturity date.

On October 26, 2021, the Company entered into an Intercompany Loan Agreement as lender, with the borrower and affiliate Aspen U.S. Holdings, Inc. ("AUSH"), for an amount of $55,000,000. The loan matures on October 31, 2024 with an annual interest rate of 1.75%, payable annually on October 26. The Company may prepay any or all amounts due under this loan at any time before the maturity date without penalty. The full amount outstanding, if not paid sooner, is due and payable on the maturity date.

[7] No other individual broker accounted for more than 10% of total gross written premiums.

13. Debt and Credit Facilities (continued)

a) Due from / to Related Party (continued)

On November 3, 2020, the Company entered into an Intercompany Loan Agreement as lender, with the borrower and affiliate Aspen Underwriting Limited ("AUL"), for an amount of $20,000,000. The loan matures on November 3, 2025 with a fixed interest rate of 2.50%, payable upon maturity. The Company may prepay any or all amounts due under this loan at any time before the maturity date without penalty. The full amount outstanding, if not paid sooner, is due and payable on the maturity date.

b) Credit Facilities

In the normal course of its operations, the Company enters into agreements with financial institutions to obtain secured and unsecured credit facilities.

Credit Agreement. On December 1, 2021, the Company, Holdings and certain of its direct or indirect subsidiaries (collectively, the "Borrowers") entered into a Third Amended and Restated Credit Agreement (the “Credit Agreement”) with various lenders and Barclays Bank plc, as administrative agent, which amends and restates the Amended and Restated Credit Agreement, dated as of June 12, 2013 and the Second Amended and Restated Credit Agreement, dated as of March 27, 2017, among the Company, Holdings and certain subsidiaries thereof, various lenders and Barclays Bank plc, as administrative agent. The credit facility will be used by the Borrowers to finance the working capital needs of Holdings and its subsidiaries, for letters of credit in connection with the insurance and reinsurance businesses of Holdings and its subsidiaries and for other general corporate purposes. Initial availability under the Credit Agreement is $300,000,000 and the Company has the option (subject to obtaining commitments from acceptable lenders) to increase the credit facility by up to $100,000,000. The credit facility will expire on December 1, 2026.

As at December 31, 2022, there were no borrowings outstanding under the Credit Agreement. The fees and interest rates on the loans and the fees on the letters of credit payable by the Borrowers under the Credit Agreement are based upon the credit ratings for the Company’s long-term unsecured senior, non-credit enhanced debt rating of the Company, as determined by S&P and Moody’s. In addition, the fees for a letter of credit vary based upon whether the applicable Borrower has provided collateral (in the form of cash or qualifying debt securities) to secure its reimbursement obligations with respect to such letter of credit.

Other Credit Facilities. On March 2, 2023, Aspen Bermuda and Citibank Europe plc (“Citi Europe”) amended the committed letter of credit facility, dated July 30, 2012, as amended with effect on June 30, 2014, June 30, 2016, June 30, 2018, September 20, 2019, June 26, 2020 and June 29, 2022 (the “LOC Facility”). The June 29, 2022 amendment to the LOC Facility extends the term to June 30, 2024. The maximum aggregate amount available under the LOC Facility is $400.0 million. Under the LOC Facility, Aspen Bermuda will pay to Citi Europe (a) a letter of credit fee based on the available amounts of each letter of credit and (b) a commitment fee, which varies based upon usage, on the unutilized portion of the LOC Facility. Aspen Bermuda will also pay interest on the amount drawn by any beneficiary under the LOC Facility at a certain specific rate from the date of drawing until the date of reimbursement by Aspen Bermuda.

In addition, Aspen Bermuda and Citi Europe entered into an uncommitted letter of credit facility whereby Aspen Bermuda has the ability to request letters of credit under this facility subject to the prior approval of Citi Europe. The fee associated with the uncommitted facility is a letter of credit fee based on the available amounts of each letter of credit issued under the uncommitted facility. Both the LOC Facility and the uncommitted facility are used to secure obligations of Aspen Bermuda to its policyholders. In addition to these facilities, we also use regulatory trusts to secure our obligations to policyholders.

13. Debt and Credit Facilities (continued)

b) Credit Facilities (continued)

The terms of a pledge agreement between the Company and Citi Europe (pursuant to an assignment agreement dated October 11, 2006) dated January 17, 2006, as amended, were also amended on December 18, 2014 to change the types of securities or other assets that are acceptable as collateral under the LOC Facility and again on June 29,2022 to change the representations and warranties granted by Aspen Bermuda in relation to the collateral provided under the LOC Facility. All other agreements relating to the Company's LOC Facility, which now apply to the LOC Facility with Citi Europe, as previously filed with the SEC, remain in full force and effect. As at December 31, 2022, we had $416.8 million of outstanding partially collateralized letters of credit under the LOC Facility (December 31, 2021 — $452.4 million).

On November 5, 2021, the Company entered into an uncommitted Continuing Agreement for Standby Letters of Credit and Demand Guarantees, as amended on April 1, 2022, where the Company has the ability to request letters of credit to be used in support of policyholder obligations with the consent of the lender. The fee associated with this facility is a facility fee based on the aggregate face amount of outstanding letters of credit. As at December 31, 2022 we had $120 million of outstanding collateralized letters of credit under this facility.

On December 21, 2022, Aspen Bermuda entered into an uncommitted Continuing Letter of Credit Agreement (For Standby Letters of Credit), where Aspen Bermuda has the ability to request letters of credit to be used in support of policyholder collateral obligations with the consent of the lender. The fee associated with this facility is a facility fee based on the aggregate face amount of outstanding letters of credit. As at December 31, 2022, we had $100 million of outstanding collateralized letters of credit under this facility.

On November 5, 2021, Holdings entered into a letter of credit facility agreement. The letter of credit issued under this facility is the for the benefit of the Company, as beneficiary, and has been applied towards the eligible capital of Aspen Bermuda, and classified as ancillary Tier 3 capital of such entity, in accordance with applicable Bermuda laws and regulations. The total commitment under the facility is $100,000,000 and was fully utilized the same day as the agreement.

On December 29, 2021, Holdings entered into a committed letter of credit facility agreement. The letter of credit issued under this facility is the for the benefit of the Company, as beneficiary, and has been applied towards the eligible capital of Aspen Bermuda, and classified as ancillary Tier 3 capital of such entity, in accordance with applicable Bermuda laws and regulations. The total commitment under the facility is $75,000,000. On December 30, 2021 the full facility amount was utilized under the agreement.

The above credit facilities include certain restrictive covenants customary for facilities of this type, including restrictions on indebtedness, consolidated tangible net worth, and minimum financial strength ratings, with such financial covenants largely consistent with these set forth in the Credit Agreement. In addition, the agreements include default covenants, which could require the Company to fully secure the outstanding amounts thereunder and/or result in the Company not being allowed to issue any new letters of credit.

14. Shareholder's Equity and Regulation

The Insurance Act imposes solvency and liquidity standards as well as auditing and reporting requirements on Bermuda insurers and reinsurers, and it empowers the BMA to supervise, investigate, require information and intervene in the affairs of Bermuda registered insurance companies. There are a number of remedial actions the BMA can take to protect the public interest if it determines that a Bermuda insurer or reinsurer may become insolvent or that a breach of the Insurance Act or of a registration condition has occurred or is about to occur.

The BMA also acts as group supervisor of the Aspen group of companies ("Aspen Group") and has named the Company as the designated insurer.

14. Shareholder's Equity and Regulation (continued)

In addition to requiring the appointment of a principal representative in Bermuda, the appointment of an independent auditor and the appointment of a loss reserve specialist, significant provisions of the Insurance Act applicable to the Company include:

Annual Filings. On an annual basis, the Company is required to submit to the BMA: (i) a statutory financial return; (ii) audited financial statements including notes to the financial statements, in accordance with GAAP Standards; and (iii) a capital and solvency return ("CSR"), which includes the Bermuda Solvency Capital Requirement ("BSCR"), a risk-based capital adequacy model, and associated schedules, including, amongst others, a Commercial Insurer Solvency Self-Assessment ("CISSA"), a Financial Condition Report (the "FCR") and an opinion of a BMA approved loss reserve specialist on the economic balance sheets technical provisions. The CISSA is a self-assessment of our risk and solvency requirements that allows the BMA to obtain our view of the capital resources required to achieve our business objectives and to assess our governance, risk management and controls surrounding this process. The audited financial statements are published by the BMA on its website. The FCR is submitted in conjunction with that of the Aspen Group and published on our website, and includes information pertaining to the Company.

Enhanced Capital Requirements. The Company must maintain available statutory economic capital and surplus in an amount equal to or exceeding its Enhanced Capital Requirement ("ECR"). The ECR is determined either by reference to the BSCR model or an approved internal capital model. The Company currently relies on the BSCR model to establish its ECR.

The BMA also expects Class 4 insurers such as the Company to operate at or above a Target Capital Level ("TCL"), which the BMA has set at 120% of the ECR. The Company holds capital in excess of its TCL as at December 31, 2022.

Minimum Solvency Margin and Minimum Liquidity Ratio. The Company is also required to comply with a minimum solvency margin ("MSM") and minimum liquidity ratio in respect of its business. The minimum solvency margin is the greater of: (i) $100,000,000; or (ii) 50% of net premiums written (being gross premiums written less any premiums ceded (not exceeding 25% of gross premium written)) in its current financial year; or (iii) 15% of net loss and loss expense provisions and other insurance reserves; or (iv) 25% of the ECR reported at the end of its relevant year. The minimum liquidity ratio requires that the value of relevant assets not be less than 75% of the amount of relevant liabilities.

Restrictions on Dividends, Distributions and Reduction of Capital. The Company may not declare or pay any dividends during any financial year if it would cause the insurer to fail to meet its relevant solvency margins, enhanced capital requirements or liquidity ratio, and an insurer which fails to meet its relevant margins on the last day of any financial year may not, without the approval of the BMA, declare or pay any dividends during the next financial year. In addition, as a Class 4 insurer, The Company may not in any financial year pay dividends which would exceed 25% of its total statutory capital and surplus, as shown on its statutory balance sheets in relation to the previous financial year, unless it files with the BMA a solvency affidavit at least seven days in advance of payment. Further, The Company must obtain the prior approval of the BMA before reducing by 15% or more its total statutory capital as set out in its previous year's financial statements.

The Insurance Amendment (No. 2) Act 2018 amended the Insurance Act to provide for the prior payment of policyholders' liabilities ahead of general unsecured creditors in the event of the liquidation or winding up of an insurer. The amendments provide among other matters that, subject to certain statutorily preferred debts, the insurance debts of an insurer must be paid in priority to all other unsecured debts of the insurer. Insurance debt is defined as a debt to which an insurer is or may become liable pursuant to an insurance contract excluding debts owed to an insurer under an insurance contract where the insurer is the person insured.

(All amounts expressed in United States dollars - amounts in tables expressed in thousands of United States dollars)

14. Shareholder's Equity and Regulation (continued)

In addition, the Company must comply with the provisions of the Bermuda Companies Act 1981, as amended (the "Companies Act"), regulating the payment of dividends and distributions. A Bermuda company may not declare or pay a dividend or make a distribution out of contributed surplus if there are reasonable grounds for believing that: (i) the company is, or would after the payment be, unable to pay its liabilities as they become due; or (ii) the realizable value of the company's assets would thereby be less than its liabilities.

The statutory capital and surplus and required minimum statutory capital and surplus for the Company, as at December 31, 2022 and December 31, 2021 were estimated as follows:

	December 31, 2022	December 31, 2021
Statutory capital and surplus[8]	1,048,506	1,305,407
Required statutory capital and surplus[9]	560,761	683,672

Singapore Branch. The Company has established segregated Singaporean bank accounts to secure policyholder liabilities as a condition of maintaining a Singaporean license and meet local solvency requirements. As at December 31, 2022 the balance of the account is SGD$14.8 million (2021 - SGD$ 13.1 million).

15. Taxation

Under current Bermuda law the Company is not required to pay any taxes in Bermuda on either income or capital gains. The Company has received an assurance from the Minister of Finance of Bermuda under The Exempted Undertakings Tax Protection Act, 1966 of Bermuda that in the event of any such taxes being imposed the Company will be exempted from taxation until March 31, 2035.

The Branches are subject to taxes under their respective tax jurisdictions. The Zurich Branch was taxed at the Zurich combined Federal and Cantonal income tax rate of 19.65% and Zurich capital tax rate of 0.171%. Zurich Branch recognized a current corporate tax income of $0.1 million in 2022 (2021: $0.4 million expense).

The Singapore Branch is taxed at the Singapore Federal income tax rate of 17%.

The Company established the Branches in order to underwrite, largely similar business that was previously written by branches operated by affiliated companies of the Company. Including the periods when the Branches were controlled by affiliated companies, the operations of the Zurich and Singapore Branches reflect cumulative losses over the last three years. Therefore, full valuation allowances have been provided on deferred tax assets of $9.0 million on $49.6 million on the Swiss branch of the Company net operating losses and $2.3 million on Singapore branch of the Company net operating losses of $10.2million, as management believes that it is more likely than not that a tax benefit will not be realized.

16. Subsequent Events

The Company declared and paid ordinary share dividends of $35 million and $50 million to Aspen Insurance Holdings Limited, the holder of all the Company's ordinary shares, on February 23, 2023 and April 27, 2023, respectively.

The Company completed its subsequent events evaluation for the period subsequent to the balance sheets date of December 31, 2022 through to April 28, 2023, the date the financial statements were available for issuance.

[8] Statutory capital and surplus is based on the statutory financial statements.
[9] Required statutory capital and surplus is based on the Enhanced Capital Requirement (ECR). The ECR is calculated using the Bermuda Solvency Capital Requirement model which is a risk-based capital model.