MARKEL BERMUDA LIMITED

Consolidated Financial Statements

December 31, 2017 and 2016

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INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of Markel Bermuda Limited

We have audited the accompanying consolidated financial statements of Markel Bermuda Limited and its subsidiary, which comprise the consolidated balance sheets as of December 31, 2017 and 2016, and the related consolidated statements of income and comprehensive income, changes in shareholders' equity, and cash flows for the years then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the Financial Statements
Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility
Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements 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 entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion
In our opinion, the consolidated financial statements referred to above present fairly in all material respects, the financial position of Markel Bermuda Limited and its subsidiary as of December 31, 2017 and 2016, and the results of their operations and their cash flows for the years then ended in accordance with U.S. generally accepted accounting principles.

Other matter
Management has omitted certain disclosures related to short-duration contracts that U.S. generally accepted accounting principles require to be presented to supplement the basic consolidated financial statements. Such missing information, although not a part of the basic consolidated financial statements, is required by the Financial Accounting Standards Board who consider it to be an essential part of financial reporting for placing the basic consolidated financial statements in an appropriate operational, economic, or historical context. Our opinion on the basic consolidated financial statements is not affected by this missing information.

KPMG Audit Limited

Chartered Professional Accountants
Hamilton, Bermuda
April 25, 2018

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MARKEL BERMUDA LIMITED
CONSOLIDATED BALANCE SHEETS

	December 31,	
	2017	2016
	(dollars in thousands)	
ASSETS		
Cash and cash equivalents	$ 425,717	$ 395,130
Fixed maturities (amortized cost of $2,300,001 in 2017 and $2,985,968 in 2016)	2,607,902	3,294,919
Equity securities (cost of $1,009,254 in 2017 and $925,434 in 2016)	1,435,071	1,055,701
Investment in affiliate, at fair value	125,312	137,069
Investment in affiliate, at cost	147,023	147,023
Short-term investments (estimated fair value approximates cost)	223,903	68,463
Other investments	898	42,923
Accrued interest income	36,473	42,076
Premiums receivable	735,896	507,021
Reinsurance recoverable on unpaid losses	795,791	675,188
Reinsurance recoverable on paid losses	42,704	15,467
Deferred policy acquisition costs	153,236	134,141
Prepaid reinsurance premiums	63,222	78,930
Trades pending settlement, net	982	34
Deferred tax asset	—	106,385
Other assets	82,505	14,020
Due from affiliates, net	425,289	357,937
Total Assets	$ 7,301,924	$ 7,072,427
LIABILITIES		
Property and casualty losses	$ 3,401,893	$ 2,924,062
Life and annuity benefits	1,096,478	1,069,128
Deposit liabilities	43,760	47,693
Funds withheld from reinsurers	20,522	22,878
Unearned property and casualty premiums	665,740	597,920
Reinsurance balances payable	95,048	103,280
Notes payable to affiliates	142,500	62,500
Deferred tax liability	11,335	—
Accounts payable and accrued expenses	45,261	55,317
Total Liabilities	5,522,537	4,882,778
SHAREHOLDER'S EQUITY		
Common shares (par value $1.00 per share); 58,829,354 shares issued and outstanding	58,829	58,829
Additional paid-in capital	1,157,948	1,347,948
Accumulated other comprehensive income	476,075	288,267
Retained earnings	86,535	494,605
Total Shareholder's Equity	1,779,387	2,189,649
Total Liabilities and Shareholder's Equity	$ 7,301,924	$ 7,072,427

See accompanying notes to consolidated financial statements.

MARKEL BERMUDA LIMITED
CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME

	Years Ended December 31,	
	2017	2016
	(dollars in thousands)	
REVENUES		
Gross premiums written	$ 1,315,485	$ 1,117,554
Ceded premiums written	(187,729)	(214,135)
Net premiums written	$ 1,127,756	$ 903,419
Gross earned premiums	$ 1,253,805	$ 933,681
Ceded earned premiums	(203,736)	(223,054)
Net earned premiums	1,050,069	710,627
Net investment income	121,260	130,096
Net realized and unrealized investment gains (losses)	(27,046)	24,753
Net impairment losses recognized in earnings	(4,520)	(4,941)
Other income	2,022	2,118
Total Revenues	1,141,785	862,653
LOSSES AND EXPENSES		
Net losses and loss adjustment expenses	862,186	378,653
Claims and policy benefits	36,980	35,646
Acquisition costs	302,247	177,580
General and administrative expenses	55,612	81,435
Interest expense	278	1,782
Total Losses and Expenses	1,257,303	675,096
Income (Loss) Before Income Taxes	(115,518)	187,557
Income tax expense (benefit)	(37,448)	55,115
Net Income (Loss)	(78,070)	132,442
OTHER COMPREHENSIVE INCOME		
Change in net unrealized gains on investments, net of taxes:		
Net holding gains (losses) arising during the period (tax impact: 2017 - $(108,498); 2016 - $(46,819))	203,805	86,951
Reclassification adjustments for net gains (losses) included in net income (tax impact: 2017 - $6,226; 2016 - $2,520)	(11,562)	(4,680)
Change in net unrealized gains on investments, net of taxes	192,243	82,271
Impact of net unrealized gains on life and annuity benefits, net of taxes (tax impact: 2017 - $2,915; 2016 - $15,915)	(5,414)	(29,277)
Change in foreign currency translation adjustment, net of taxes (tax impact: 2017 - $(527); 2016 - $1,928)	979	(3,548)
Total Other Comprehensive Income	187,808	49,446
Comprehensive Income	$ 109,738	$ 181,888

See accompanying notes to consolidated financial statements.

MARKEL BERMUDA LIMITED
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDER'S EQUITY

	Years Ended December 31,	
	2017	2016
	(dollars in thousands)	
COMMON SHARES		
Balance - Beginning And End Of Year	$ 58,829	$ 58,829
ADDITIONAL PAID-IN CAPITAL		
Balance - beginning of year	1,347,948	1,347,948
Return of capital	(190,000)	-
Balance - End Of Year	1,157,948	1,347,948
ACCUMULATED OTHER COMPREHENSIVE INCOME		
Unrealized holding gains:		
Balance - beginning of year	320,933	267,939
Holding gains (losses) on available for sale securities arising in year, net of tax	203,805	86,951
Net realized gains (losses) on available for sale securities included in net income, net of tax	(11,562)	(4,680)
Impact of net unrealized investment gains on life and annuity benefits, net of tax	(5,414)	(29,277)
Balance - End Of Year	507,762	320,933
Cumulative Foreign Currency Translation Adjustment:		
Balance - beginning of year	(32,666)	(29,118)
Foreign currency translation adjustment, net of tax	979	(3,548)
Balance - End Of Year	(31,687)	(32,666)
Total Accumulated Other Comprehensive Income - End Of Year	476,075	288,267
RETAINED EARNINGS		
Balance - beginning of year	494,605	562,163
Net income (loss)	(78,070)	132,442
Dividends	(330,000)	(200,000)
Balance - End Of Year	86,535	494,605
TOTAL SHAREHOLDER'S EQUITY	$ 1,779,387	$ 2,189,649

See accompanying notes to consolidated financial statements.

MARKEL BERMUDA LIMITED
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31,	
	2017	2016
	(dollars in thousands)	
OPERATING ACTIVITIES		
Net income (loss)	$ (78,070)	$ 132,442
Adjustments to reconcile net income to net cash provided (used) by operating activities:		
Net amortization of premium on fixed maturities	7,405	8,938
Net realized and unrealized losses (gains) on investments	27,046	(24,753)
Net impairment losses recognized in earnings	4,520	4,941
Accretion of deposit liabilities	996	(8,668)
Changes in:		
Accrued interest income	5,603	(2,909)
Premiums receivable	(227,625)	(45,401)
Reinsurance recoverable on unpaid and paid losses	(143,848)	(19,389)
Deferred acquisition costs	(18,967)	(74,782)
Prepaid reinsurance premiums	15,927	8,919
Deferred tax assets	17,836	48,425
Other assets	(66,811)	(1,940)
Property and casualty losses	457,052	(78,254)
Life and annuity benefits	(46,097)	(45,243)
Deposit liabilities	—	(51,914)
Funds withheld from reinsurers	(2,355)	6
Unearned property and casualty premiums	66,536	180,984
Reinsurance balances payable	(8,255)	8,163
Accounts payable and accrued expenses	(10,208)	(47,227)
Due from affiliates	12,658	(25,069)
Net Cash Provided (Used) By Operating Activities	13,343	(32,731)
INVESTING ACTIVITIES		
Purchases of fixed maturities and equity securities, available for sale	(260,902)	(475,500)
Sales of fixed maturities and equity securities, available for sale	601,071	183,705
Redemptions of fixed maturities, available for sale	340,089	365,913
Net change in short term investments	(154,659)	137,358
Sales and redemptions of other investments	54,448	1,645
Investment in affiliate	(50,000)	(62,500)
Due from affiliates	(80,000)	—
Net Cash Provided By Investing Activities	450,047	150,621

See accompanying notes to consolidated financial statements.

MARKEL BERMUDA LIMITED
CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)

	Years Ended December 31,	
	2017	2016
	(dollars in thousands)	
FINANCING ACTIVITIES		
Dividends and return of capital	(520,000)	(200,000)
Notes payable to affiliates	80,000	—
Due from affiliates	(10)	8
Additions to deposit liabilities	266	—
Payments of deposit liabilities	(5,195)	(4,655)
Net Cash Used By Financing Activities	(444,939)	(204,647)
Effect of foreign currency rate changes on cash and cash equivalents	12,136	(5,180)
Increase (decrease) in cash and cash equivalents	30,587	(91,937)
Cash and cash equivalents at beginning of year	395,130	487,067
CASH AND CASH EQUIVALENTS AT END OF YEAR	$ 425,717	$ 395,130
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION		
Taxes paid	$ (8,628)	$ (75,204)

See accompanying notes to consolidated financial statements.

1. General

Markel Bermuda Limited ("Markel Bermuda" or "the Company"), formerly known as Alterra Bermuda Limited and Max Bermuda Ltd. was incorporated on August 20, 1999 under the laws of Bermuda to provide diversified specialty insurance and reinsurance products to corporations, public entities and property and casualty insurers. The Company is registered as both a Class 4 commercial insurer and Class C long-term insurer under the insurance laws of Bermuda. The Company's ultimate parent company is Markel Corporation ("Markel"), a publicly traded, diversified financial holding company (NYSE: MKL), headquartered in Richmond, Virginia. Alterra Diversified Strategies Limited, ("ADS") a company organized under the laws of Bermuda, is the Company's wholly-owned subsidiary.

2. Summary of Significant Accounting Policies

a) Basis of Presentation. The accompanying consolidated financial statements have been prepared in accordance with United States generally accepted accounting principles ("U.S. GAAP") and include the accounts of Markel Bermuda Limited and its subsidiary. All significant intercompany balances and transactions have been eliminated in consolidation. Certain prior year amounts have been reclassified to conform to the current presentation.

b) Use of Estimates. The preparation of financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities. Management periodically reviews its estimates and assumptions. Quarterly reviews include evaluating the adequacy of reserves for unpaid losses and loss adjustment expenses, life and annuity reinsurance benefit reserves, litigation contingencies, the reinsurance allowance for doubtful accounts and income tax liabilities, as well as analyzing the recoverability of deferred tax assets, estimating reinsurance premiums written and earned and evaluating the investment portfolio for other-than-temporary declines in estimated fair value. Actual results may differ materially from the estimates and assumptions used in preparing the consolidated financial statements.

c) Investments. Available-for-sale investments are recorded at estimated fair value. Unrealized gains and losses on investments, net of deferred income taxes, are included in accumulated other comprehensive income in shareholder's equity. The Company completes a detailed analysis each quarter to assess whether the decline in the fair value of any investment below its cost basis is deemed other-than-temporary.

Premiums and discounts are amortized or accreted over the lives of the related fixed maturities as an adjustment to the yield using the effective interest method. Dividend and interest income are recognized when earned. Realized investment gains or losses are included in earnings. Realized gains or losses from sales of investments are derived using the first-in, first-out method.

Other investments include hybrid financial instruments and hedge funds. Investments in hybrid financial instruments are recorded at fair value with changes in unrealized gains and losses recorded in net income. Investments in hedge funds are recorded at cost as the Company does not exercise any influence over the hedge fund. The Company evaluates on an annual basis if there have been any identified events or changes in circumstances which may have had a significant adverse effect on the fair value of the investment. To the extent such events occur, the Company determines the fair value of the hedge fund and evaluates whether an other-than-temporary impairment is required.

The changes in unrealized gains and losses for the investment in affiliate recorded at fair value are recognized in net income.

d) Cash and Cash Equivalents. The Company considers all investments with original maturities of 90 days or less to be cash equivalents. The carrying value of the Company's cash and cash equivalents and restricted cash and cash equivalents approximates fair value.

e) Receivables. Receivables include amounts receivable from agents, brokers and insureds, which represent premiums that are both currently due and amounts not yet due on insurance and reinsurance policies. Premiums for insurance policies are generally due at inception. Premiums for reinsurance policies generally become due over the period of coverage based on the policy terms. The Company monitors the credit risk associated with premiums receivable, taking into consideration the fact that

in certain instances credit risk may be reduced by the Company's right to offset loss obligations or unearned premiums against premiums receivable. Amounts deemed uncollectible are charged to net income in the period they are determined. Changes in the estimate of reinsurance premiums written will result in an adjustment to premiums receivable in the period they are determined.

f) Reinsurance Recoverables. Amounts recoverable from reinsurers are estimated in a manner consistent with the claim liability associated with the reinsured business. Allowances are established for amounts deemed uncollectible and reinsurance recoverables are recorded net of these allowances. The Company evaluates the financial condition of its reinsurers and monitors concentration risk to minimize its exposure to significant losses from individual reinsurers.

g) Deferred Policy Acquisition Costs. Costs directly related to the acquisition of insurance premiums are deferred and amortized over the related policy period, generally one year. The Company only defers acquisition costs incurred that are related directly to the successful acquisition of new or renewal insurance contracts, including commissions to agents and brokers and premium taxes. Commissions received related to reinsurance premiums ceded are netted against broker commissions in determining acquisition costs eligible for deferral. To the extent that future policy revenues on existing policies are not adequate to cover related costs and expenses, deferred policy acquisition costs are charged to earnings. The Company does not consider anticipated investment income in determining whether a premium deficiency exists.

h) Income Taxes. The Company records deferred income taxes to reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and their tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in years in which those temporary differences are expected to be recovered or settled. Deferred tax assets are reduced by a valuation allowance when management believes it is more likely than not that some, or all, of the deferred tax assets will not be realized. The Company recognizes the tax benefit from an uncertain tax position taken or expected to be taken in income tax returns only if it is more likely than not that the tax position will be sustained upon examination by tax authorities, based on the technical merits of the position. Tax positions that meet the more likely than not threshold are then measured using a probability weighted approach, whereby the largest amount of tax benefit that is greater than 50% likely of being realized upon ultimate settlement is recognized. The Company recognizes interest and penalties related to uncertain tax positions in income tax expense.

i) Unpaid Losses and Loss Adjustment Expenses. Unpaid losses and loss adjustment expenses on the Company's property and casualty insurance business are based on evaluations of reported claims and estimates for losses and loss adjustment expenses incurred but not reported. Estimates for losses and loss adjustment expenses incurred but not reported are based on reserve development studies, among other things. The Company does not discount reserves for losses and loss adjustment expenses to reflect estimated present value, except for reserves assumed in connection with an acquisition, which are recorded at fair value at the acquisition date. Recorded reserves are estimates, and the ultimate liability may be greater or less than the estimates.

j) Life and Annuity Benefits. Long duration reinsurance contracts for life and annuity benefits subject the Company to mortality, longevity and morbidity risks. The assumptions used to determine policy benefit reserves were determined at contract inception and are generally locked-in for the life of the contract unless an unlocking event occurs. To the extent existing policy reserves, together with the present value of future gross premiums and expected investment income earned thereon, are not adequate to cover the present value of future benefits, settlement and maintenance costs, the locked-in assumptions are revised to current best estimate assumptions and a charge to earnings for life and annuity benefits is recognized at that time. Because of the assumptions and estimates used in establishing reserves for life and annuity benefit obligations and the long-term nature of these reinsurance contracts, the ultimate liability may be greater or less than the estimates.

k) Revenue Recognition. Insurance premiums are generally earned on a pro rata basis over the policy period, typically one year. The cost of reinsurance ceded is initially recorded as prepaid reinsurance premiums and is amortized over the reinsurance contract period in proportion to the amount of insurance protection provided. Premiums ceded are netted against premiums written.

Assumed reinsurance premiums are recorded at the inception of each contract based upon contract terms and information received from cedents and brokers and are earned on a pro rata basis over the coverage period, or for multi-year contracts, in proportion with the underlying risk exposure to the extent there is variability in the exposure through the coverage period. Changes in reinsurance premium estimates are expected and may result in significant adjustments in any period. These

estimates change over time as additional information regarding changes in underlying exposures is obtained. Any subsequent differences arising on such estimates are recorded as premiums written in the period they are determined.

Certain contracts that the Company writes provide for reinstatement of coverage. Reinstatement premiums are the premiums for the restoration of the insurance or reinsurance limit of a contract to its full amount after a loss occurrence by the insured or reinsured. The Company accrues for reinstatement premiums resulting from losses recorded. Such accruals are based upon contractual terms and management judgment is involved with respect to the amount of losses recorded. Changes in estimates of losses recorded on contracts with reinstatement premium features will result in changes in reinstatement premiums based on contractual terms. Reinstatement premiums are recognized at the time losses are recorded and are earned on a pro-rata basis over the coverage period.

Deposits

Short duration reinsurance contracts entered into by the Company that are not deemed to transfer significant underwriting and timing risk are accounted for as deposits, whereby liabilities are initially recorded at the same amount as assets received. An initial accretion rate is established based on actuarial estimates whereby the deposit liability is increased to the estimated amount payable over the term of the contract. This accretion charge is presented in the period as interest expense or losses and loss adjustment expenses, as appropriate. Long duration contracts written by the Company that do not transfer significant mortality or morbidity risks are also accounted for as deposits. The Company periodically reassesses the amount of deposit liabilities. Changes to the estimated ultimate liability are recognized as an adjustment to earnings to reflect the cumulative effect since the inception of the contract. For certain contracts the future accretion rate of the liability is also adjusted over the remaining estimated contract term. For the years ended December 31, 2017 and 2016, losses and loss adjustment expenses includes $126 and $(9,692), respectively, due to changes in the estimated ultimate liability related to short duration reinsurance contracts accounted for as deposits.

l) Stock-based Compensation. Stock-based compensation expense is recognized as part of general and administrative expenses over the requisite service period.

m) Foreign Currency Translation. The reporting currency of the Company is the United States ("U.S.") dollar. The functional currencies of the Company's foreign operations are the currencies in which the majority of their business is transacted. Assets and liabilities of foreign operations are translated into the U.S. dollar using the exchange rates in effect at the balance sheet date. Revenues and expenses of foreign operations are translated using the average exchange rate for the period. Gains or losses from translating the financial statements of foreign operations denominated in a functional currency are included, net of taxes, in shareholder's equity as a component of accumulated other comprehensive income. Gains and losses arising from transactions denominated in a foreign currency, other than a functional currency, are included in net income.

The Company manages its exposure to foreign currency risk primarily by matching assets, other than goodwill and intangible assets, and liabilities denominated in the same currency. To the extent that assets and liabilities in foreign currencies are not matched, the Company is exposed to foreign currency risk. For functional currencies, the related exchange rate fluctuations are reflected in other comprehensive income.

n) Comprehensive Income. Comprehensive income represents all changes in equity that result from recognized transactions and other economic events during the period. Other comprehensive income refers to revenues, expenses, gains and losses that under U.S. GAAP are included in comprehensive income but excluded from net income, such as unrealized gains or losses on investments and foreign currency translation adjustments.

o) Recent Accounting Pronouncements. Effective January 1, 2017 the Company adopted ASU No. 2015-09, *Financial Services-Insurance (Topic 944); Disclosures about Short-Duration Contracts.* ASU No. 2015-09 requires significant new disclosures for insurers relating to short-duration insurance contract claims and unpaid claims liability rollforward for long and short-duration contracts. The guidance requires annual tabular disclosure, on a disaggregated basis, of undiscounted incurred and paid claim and allocated claim adjustment expense development by accident year, net of reinsurance, for up to 10 years. Tables must also include the total incurred but not reported claims liabilities, plus expected development on reported claims, and claims frequency for each accident year. A description of estimation methodologies and any significant changes in methodologies and assumptions used to calculate the liability and frequency is also required. Based on the disaggregated

claims information in the tables, disclosure of historical average annual percentage payout of incurred claims is also required. The ASU requires retrospective application by providing comparative disclosures for each period presented, other than those that are only required for the most recent reporting period. The adoption of this ASU did not have a material impact on the Company's financial position, results of operations or cash flows.

Effective January 1, 2017 the Company early adopted ASU No. 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*, which is intended to reduce diversity in practice in how certain transactions are classified in the statement of cash flows. Some of the topics covered by the ASU include the classification of debt prepayment and extinguishment costs, contingent consideration payments made after a business combination and distributions from equity method investees. Upon adoption of this ASU, the Company made an accounting policy election to use the cumulative earnings approach for presenting distributions received from equity method investees, which is consistent with its existing approach. Under this approach, distributions up to the amount of cumulative equity in earnings recognized will be treated as returns on investment and presented in operating activities and those in excess of that amount will be treated as returns of investment and presented in financing activities. The provisions of ASU No. 2016-15 were adopted on a retrospective basis and did not impact the Company's financial position, results of operations or cash flows.

Effective January 1, 2017 the Company adopted ASU No. 2016-17, *Consolidation (Topic 810): Interests Held through Related Parties That Are Under Common Control*, which requires a single decision maker evaluating whether it is the primary beneficiary of a VIE to consider its indirect interests held by related parties that are under common control on a proportionate basis. Under the guidance of the FASB issued in 2015, which was adopted by the Company effective January 1, 2016, the decision maker was required to consider those interests in their entirety. ASU No. 2016-17 was applied retrospectively to 2016, the fiscal year in which the amendments in Update 2015-02 initially were applied. Adoption of this guidance did not result in any changes to the Company's previous consolidation conclusions.

Effective January 1, 2017, the Company early adopted ASU No. 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash.* The ASU requires that amounts generally described as restricted cash and restricted cash equivalents be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The Company previously presented changes in restricted cash and restricted cash equivalents on the statement of cash flows as an investing activity. The Company generally describes amounts held in trust or on deposit to support underwriting activities as well as amounts pledged as security for letters of credit as restricted cash or restricted cash equivalents. The provisions of ASU No. 2016-18 were adopted on a retrospective basis and did not impact the Company's financial position, results of operations or total comprehensive income. As a result of the adoption of this ASU, investing cash in flows of $2,083 in 2016 were attributed to the change in restricted cash and were reclassified out of investing activities. The Company's statements of cash flows now include restricted cash and restricted cash equivalents in the beginning-of-period and end-of-period total amounts for cash, cash equivalents, restricted cash and restricted cash equivalents.

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*, which creates a new comprehensive revenue recognition standard that will serve as a single source of revenue guidance for all companies in all industries. The guidance applies to all companies that either enter into contracts with customers to transfer goods or services or enter into contracts for the transfer of nonfinancial assets, unless those contracts are within the scope of other standards, such as insurance contracts. All of the Company's revenues represent premiums from insurance contracts or revenues from its investment portfolio, and therefore, adoption of this ASU for the year ended December 31, 2018 will not impact the Company.

In January 2016, the FASB issued ASU No. 2016-01, *Financial Instruments (Topic 825): Recognition and Measurement of Financial Assets and Financial Liabilities*. The ASU significantly changes the income statement impact of equity investments and the recognition of changes in fair value of financial liabilities when the fair value option is elected. The ASU requires equity instruments that do not result in consolidation and are not accounted for under the equity method to be measured at fair value and to recognize any changes in fair value in net income rather than other comprehensive income (loss). The Company plans to adopt ASU 2016-01 in the first quarter of 2018 and it will be applied using a cumulative-effect adjustment to the balance sheet as of the beginning of the fiscal year of adoption. As of December 31, 2017, accumulated other comprehensive income included $425,817 of net unrealized gains on equity securities, which will be reclassified to retained earnings on January 1, 2018. As of December 31, 2017, accumulated other comprehensive income was net of deferred income taxes on net unrealized gains on equity securities of $148,971. The Company is still assessing the impact of the Tax Cuts and Jobs Act, which was enacted in December 2017, on deferred taxes included in accumulated other comprehensive income and has not determined the amount of deferred income taxes on net unrealized gains on equity securities that will be reclassified to retained

earnings on January 1, 2018. The provisions related to equity investments without a readily determinable fair value will be applied prospectively to equity investments as of the adoption date. Adoption of this ASU is not expected to have a material impact on the Company's financial position, cash flows, or total comprehensive income, but will have a material impact on the Company's results of operations as changes in fair value of equity instruments will be presented in net income rather than other comprehensive income (loss). See note 3(f) for details regarding the change in net unrealized gains on equity securities included in other comprehensive income (loss) for the years ended December 31, 2017 and 2016.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*. The ASU requires lessees to record most leases on their balance sheets as a lease liability with a corresponding right-of-use asset, but continues to recognize the related leasing expense within net income. The Company plans to adopt ASU No. 2016-02 in the first quarter of 2019 and it will be applied under a modified retrospective approach for leases that exist or are entered into after the beginning of the earliest comparative period in the financial statements. See note 9(a) for details regarding the Company's minimum annual rental commitments payable directly by the Company for noncancelable operating leases at December 31, 2017, which will be subject to this new guidance. The calculation of the lease liability and right-of-use asset requires further analysis of the underlying leases to determine which portion of the underlying lease payments are required to be included in the calculation. Adoption of this standard will impact the Company's consolidated balance sheets but is not expected to have a material impact on the Company's results of operations or cash flows. The Company is currently evaluating ASU No. 2016-02 to determine the potential impact that adopting this standard will have on its consolidated financial statements.

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments.* The ASU replaces the current incurred loss model used to measure impairment losses with an expected loss model for trade, reinsurance, and other receivables as well as financial instruments measured at amortized cost. For available-for-sale fixed maturities securities, which are measured at fair value, the ASU requires entities to record impairments as an allowance, rather than a reduction of the amortized cost, as is currently required under the other-than-temporary impairment model. The Company plans to adopt ASU No. 2016-13 in the first quarter of 2020 and it will be applied using a modified-retrospective approach through a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. The Company is currently evaluating ASU No. 2016-13 to determine the potential impact that adopting this standard will have on the consolidated financial statements. Application of the new expected loss model for measuring impairment losses will not impact the Company's investment portfolio, all of which is considered available-for-sale, but will impact the Company's other financial assets, including its reinsurance recoverables. Upon adoption of this ASU, any impairment losses on the Company's available-for-sale fixed maturities securities will be recorded as an allowance, subject to reversal, rather than as a reduction in amortized cost.

In October 2016, the FASB issued ASU No. 2016-16, *Income Taxes (Topic 740): Intra-entity Transfers of Assets Other Than Inventory,* which will require companies to account for the income tax effects of intercompany transfers of assets other than inventory when the transfer occurs. Intercompany transfers of assets across tax jurisdictions may have cash tax consequences and may be taxable events as proscribed by the applicable tax jurisdiction. Currently, companies are prohibited from recognizing those tax effects until the asset has been sold to an outside party. The income tax effects of intercompany inventory transactions will continue to be deferred. ASU No. 2016-16 becomes effective for the Company during the first quarter of 2018 and will be applied using a modified retrospective transition approach. Early adoption is permitted. Adoption of this ASU will not impact the Company's cash flows and is not expected to have a material impact on the Company's financial position or results of operations.

3. Investments

a) The following tables summarize the Company's available-for-sale investments. Commercial and residential mortgage-backed securities include securities issued by U.S. government-sponsored enterprises and U.S. government agencies.

(dollars in thousands)	December 31, 2017 Amortized Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Estimated Fair Value
Fixed maturity securities:				
U.S. Treasury	$ 1,152	$ —	$ (1)	$ 1,151
U.S. government-sponsored enterprises	96,313	5,480	(260)	101,533
Obligations of states, municipalities and political subdivisions	733,823	42,173	(374)	775,622
Foreign governments	558,633	205,155	(3)	763,785
Commercial mortgage-backed	251,936	2,330	(3,448)	250,818
Residential mortgage-backed	298,740	5,532	(792)	303,480
Asset-backed	10,265	65	—	10,330
Corporate	349,139	52,167	(123)	401,183
Total fixed maturity securities	2,300,001	312,902	(5,001)	2,607,902
Equity securities:				
Insurance, banks and other financial institutions	398,024	168,339	(189)	566,174
Industrial, consumer and all other	611,230	263,496	(5,829)	868,897
Total equity securities	1,009,254	431,835	(6,018)	1,435,071
Short-term investments	223,885	19	(1)	223,903
Investments, available-for-sale	$ 3,533,140	$ 744,756	$ (11,020)	$ 4,266,876

(dollars in thousands)	December 31, 2016 Amortized Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Estimated Fair Value
Fixed maturity securities:				
U.S. Treasury	$ 103,180	$ 7	$ (9)	$ 103,178
U.S. government-sponsored enterprises	155,720	5,200	(85)	160,835
Obligations of states, municipalities and political subdivisions	987,941	39,787	(10,685)	1,017,043
Foreign governments	507,539	210,225	(53)	717,711
Commercial mortgage-backed	281,466	2,693	(4,171)	279,988
Residential mortgage-backed	322,300	7,252	(1,012)	328,540
Asset-backed	22,467	213	(15)	22,665
Corporate	605,355	60,200	(596)	664,959
Total fixed maturity securities	2,985,968	325,577	(16,626)	3,294,919
Equity securities:				
Insurance, banks and other financial institutions	373,551	71,901	(4,017)	441,435
Industrial, consumer and all other	551,883	69,585	(7,202)	614,266
Total equity securities	925,434	141,486	(11,219)	1,055,701
Short-term investments	68,461	3	(1)	68,463
Investments, available-for-sale	$ 3,979,863	$ 467,066	$ (27,846)	$ 4,419,083

b) The following tables summarize gross unrealized investment losses by the length of time that securities have continuously been in an unrealized loss position.

	December 31, 2017					
	Less than 12 months		12 months or longer		Total	
(dollars in thousands)	Estimated Fair Value	Gross Unrealized Holding Losses	Estimated Fair Value	Gross Unrealized Holding Losses	Estimated Fair Value	Gross Unrealized Holding Losses
Fixed maturity securities:						
U.S. Treasury	$ —	$ —	$ 1,151	$ (1)	$ 1,151	$ (1)
U.S. government-sponsored enterprises	9,142	(70)	19,929	(190)	29,071	(260)
Obligations of states, municipalities and political subdivisions	17,262	(146)	31,382	(228)	48,644	(374)
Foreign governments	—	—	3,396	(3)	3,396	(3)
Commercial mortgage-backed	31,667	(348)	106,236	(3,100)	137,903	(3,448)
Residential mortgage-backed	47,620	(136)	37,330	(656)	84,950	(792)
Corporate	8,309	(16)	9,163	(107)	17,472	(123)
Total fixed maturity securities	114,000	(716)	208,587	(4,285)	322,587	(5,001)
Equity securities:						
Insurance, banks and other financial institutions	17,387	(189)	—	—	17,387	(189)
Industrial, consumer and all other	43,879	(5,461)	2,165	(368)	46,044	(5,829)
Total equity securities	61,266	(5,650)	2,165	(368)	63,431	(6,018)
Short-term investments	48,937	(1)	—	—	48,937	(1)
Total	$ 224,203	$ (6,367)	$ 210,752	$ (4,653)	$ 434,955	$ (11,020)

At December 31, 2017, the Company held 94 securities with a total estimated fair value of $434,955 and gross unrealized losses of $11,020. Of these 94 securities, 47 securities had been in a continuous unrealized loss position for one year or longer and had a total estimated fair value of $210,752 and gross unrealized losses of $4,653. Of these securities, 44 securities were fixed maturity securities and three were equity securities. The Company does not intend to sell or believe it will be required to sell these fixed maturity securities before recovery of their amortized cost. The Company has the ability and intent to hold these equity securities for a period of time sufficient to allow for the anticipated recovery of their fair value.

	December 31, 2016					
	Less than 12 months		12 months or longer		Total	
(dollars in thousands)	Estimated Fair Value	Gross Unrealized Holding Losses	Estimated Fair Value	Gross Unrealized Holding Losses	Estimated Fair Value	Gross Unrealized Holding Losses
Fixed maturity securities:						
U.S. Treasury	$ 42,164	$ (9)	$ —	$ —	$ 42,164	$ (9)
U.S. government-sponsored enterprises	30,128	(85)	—	—	30,128	(85)
Obligations of states, municipalities and political subdivisions	236,487	(9,767)	9,638	(918)	246,125	(10,685)
Foreign governments	13,098	(53)	—	—	13,098	(53)
Commercial mortgage-backed	144,680	(3,788)	19,599	(383)	164,279	(4,171)
Residential mortgage-backed	59,562	(902)	3,995	(110)	63,557	(1,012)
Asset-backed	—	—	384	(15)	384	(15)
Corporate	59,788	(208)	11,137	(388)	70,925	(596)
Total fixed maturity securities	585,907	(14,812)	44,753	(1,814)	630,660	(16,626)
Equity securities:						
Insurance, banks and other financial institutions	99,401	(1,506)	20,897	(2,511)	120,298	(4,017)
Industrial, consumer and all other	98,074	(5,582)	24,011	(1,620)	122,085	(7,202)
Total equity securities	197,475	(7,088)	44,908	(4,131)	242,383	(11,219)
Short-term investments	20,490	(1)	—	—	20,490	(1)
Total	$ 803,872	$ (21,901)	$ 89,661	$ (5,945)	$ 893,533	$ (27,846)

At December 31, 2016, the Company held 174 securities with a total estimated fair value of $893,533 and gross unrealized losses of $27,846. Of these 174 securities, 36 securities had been in a continuous unrealized loss position for one year or longer and had a total estimated fair value of $89,661 and gross unrealized losses of $5,945. Of these securities, 28 securities were fixed maturity securities and eight were equity securities.

The Company completes a detailed analysis each quarter to assess whether the decline in the fair value of any investment below its cost basis is deemed other-than-temporary. All securities with unrealized losses are reviewed. The Company considers many factors in completing its quarterly review of securities with unrealized losses for other-than-temporary impairment, including the length of time and the extent to which fair value has been below cost and the financial condition and near-term prospects of the issuer. For equity securities, the ability and intent to hold the security for a period of time sufficient to allow for anticipated recovery is considered. For fixed maturity securities, the Company considers whether it intends to sell the security or if it is more likely than not that it will be required to sell the security before recovery, the implied yield-to-maturity, the credit quality of the issuer and the ability to recover all amounts outstanding when contractually due.

For equity securities, a decline in fair value that is considered to be other-than-temporary is recognized in net income based on the fair value of the security at the time of assessment, resulting in a new cost basis for the security. For fixed maturity securities where the Company intends to sell the security or it is more likely than not that the Company will be required to sell the security before recovery of its amortized cost, a decline in fair value is considered to be other-than-temporary and is recognized in net income based on the fair value of the security at the time of assessment, resulting in a new cost basis for the security. If the decline in fair value of a fixed maturity security below its amortized cost is considered to be other-than-temporary based upon other considerations, the Company compares the estimated present value of the cash flows expected to be collected to the amortized cost of the security. The extent to which the estimated present value of the cash flows expected to be collected is less than the amortized cost of the security represents the credit-related portion of the other-than-temporary

impairment, which is recognized in net income, resulting in a new cost basis for the security. Any remaining decline in fair value represents the non-credit portion of the other-than-temporary impairment, which is recognized in other comprehensive income (loss). The discount rate used to calculate the estimated present value of the cash flows expected to be collected is the effective interest rate implicit for the security at the date of purchase.

When assessing whether it intends to sell a fixed maturity security or if it is likely to be required to sell a fixed maturity security before recovery of its amortized cost, the Company evaluates facts and circumstances including decisions to reposition the investment portfolio, potential sales of investments to meet cash flow needs and, ultimately, current market prices.

c) The following table sets forth certain information regarding the investment ratings of the Company's available-for-sale fixed maturity securities as of December 31, 2017 and 2016.

	Years Ended December 31,			
	2017	2017	2016	2016
(dollars in thousands)	Estimated Fair Value	%	Estimated Fair Value	%
AAA	$ 1,415,691	54.3	$ 1,735,729	52.7
AA	957,221	36.7	1,205,048	36.6
A	198,103	7.6	292,531	8.9
BBB	36,887	1.4	59,065	1.8
BB	—	—	1,050	—
B	—	—	1,117	—
CCC or lower	—	—	17	—
Not Rated	—	—	362	—
Total fixed maturity securities	$ 2,607,902	100.0	$ 3,294,919	100.0

d) The amortized cost and estimated fair value of fixed maturity securities at December 31, 2017 are shown below by contractual maturity.

(dollars in thousands)	Amortized Cost	Estimated Fair Value
Due in one year or less	$ 67,518	$ 68,207
Due after one year through five years	244,578	257,581
Due after five years through ten years	349,265	393,232
Due after ten years	1,077,699	1,324,254
	1,739,060	2,043,274
Commercial mortgage-backed	251,936	250,818
Residential mortgage-backed	298,740	303,480
Asset-backed	10,265	10,330
Total fixed maturity securities	$ 2,300,001	$ 2,607,902

Expected maturities may differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties, and the lenders may have the right to put the securities back to the borrower. Based on expected maturities, the estimated average duration of fixed maturity securities at December 31, 2017 was 8.0 years.

e) The following table presents the components of net investment income.

(dollars in thousands)	Years Ended December 31, 2017	2016
Interest:		
Fixed maturity securities	$ 96,665	$ 107,103
Short-term investments, including overnight deposits	2,045	1,042
Other investments	948	3,116
Funds held	9	2
Loans to parent & affiliates	15,256	13,270
Dividends on equity securities	19,246	16,009
Dividends on investment in affiliates	7,615	8,567
Investment expenses	(20,524)	(19,013)
Net investment income	$ 121,260	$ 130,096

f) The following table presents net realized investment gains and the change in net unrealized gains on investments.

(dollars in thousands)	Years Ended December 31, 2017	2016
Realized gains:		
Sales of fixed maturity securities	$ 23,757	$ 7,187
Sales of equity securities	3,581	10,713
Other investments	5,373	3,152
Total realized gains	32,711	21,052
Realized losses:		
Sales of fixed maturity securities	(2,912)	(60)
Sales of equity securities	(2,119)	(5,698)
Other-than-temporary impairments	(4,520)	(4,941)
Other investments	(19)	—
Total realized losses	(9,570)	(10,699)
Gains (losses) on securities measured at fair value through net income	(54,707)	9,459
Net realized investment gains (losses)	$ (31,566)	$ 19,812
Change in net unrealized gains on investments included in other comprehensive income (loss):		
Fixed maturity securities	$ (1,050)	$ 9,146
Equity securities	295,550	117,412
Short-term investments	16	13
Net increase (decrease)	$ 294,516	$ 126,571

Gross realized losses in 2017 included $4,520 of write downs for other-than-temporary declines in the estimated fair value of investments. These write downs included $4,193 related to equities in industrial, consumer or other types of businesses and $327 related to corporate bonds. Gross realized losses in 2016 included $4,941 of write downs for other-than-temporary declines in the estimated fair value of investments. These write downs included $3,199 related to equities in insurance, banks and other financial institutions and $1,742 related to equities in industrial, consumer or other types of businesses.

g) The following is a summary of other investments as of December 31, 2017 and 2016.

	Years Ended December 31,			
	2017	2017	2016	2016
(dollars in thousands)	Carry Value	%	Carry Value	%
Hybrid financial instrument, at fair value	$ —	—	$ 41,380	96.4
Hedge funds, at cost	898	100.0	1,543	3.6
Other investments	$ 898	100.0	$ 42,923	100.0

Hybrid Financial Instrument

The hybrid financial instrument held at December 31, 2015 was called in 2016. Net realized and unrealized losses for this instrument were $2,242 for the year ended December 31, 2016.

The Company purchased a new non-callable hybrid financial instrument in 2016 for $40,000. Net realized and unrealized gains for this new instrument were $1,380 for the year ended December 31, 2016.

The hybrid financial instrument held at December 31, 2016 was sold in 2017. Net realized and unrealized losses for this instrument were $7,049 for the year ended December 31, 2017.

Hedge Funds

The Company has investments in various underlying trading entities across various investment strategies ("hedge funds"). All of the Company's investments in hedge funds as of December 31, 2017 and 2016 are illiquid due to the imposition of gates or the use of side-pockets. As of December 31, 2017 and 2016, the Company does not have any remaining unfunded commitments to its hedge fund portfolio.

h) The following table presents the components of restricted assets.

	December 31,	
(dollars in thousands)	2017	2016
Restricted assets held in trust or on deposit to support underwriting activities	$ 2,755,699	$ 2,560,557
Investments and cash and cash equivalents pledged as security for letters of credit	281,400	287,323
Investments restricted from withdrawal	81,741	11,296
Total	$ 3,118,840	$ 2,859,176

Total restricted assets are included on the Company's consolidated balance sheets as follows.

	December 31,	
(dollars in thousands)	2017	2016
Investments, available for sale	$ 2,915,352	$ 2,652,756
Cash and cash equivalents	121,747	195,124
Investment in affiliate, at fair value	80,843	9,753
Other investments, at cost	898	1,543
Total	$ 3,118,840	$ 2,859,176

4. Income Taxes

Markel Bermuda is incorporated in Bermuda and pursuant to Bermuda law is not taxed on either income or capital gains. The Company has received an assurance from the Bermuda Minister of Finance under the Exempted Undertaking Tax Protection Act, 1966 of Bermuda that if there is enacted in Bermuda any legislation imposing tax computed on profits or income, or computed on any capital asset, gain or appreciation, then the imposition of any such tax will not be applicable until March 2035.

Effective May 2, 2013, Markel Bermuda made an irrevocable election under Section 953(d) of the United States Internal Revenue Code ("IRC"), as amended, to be taxed as a U.S. domestic corporation. As a result of this "domestic election", the Company is subject to U.S. taxation on its world-wide income as if it were a U.S. corporation.

The Company records income taxes based on the enacted tax laws and rates applicable in the relevant jurisdictions for each of the years ended December 31, 2017 and 2016. Interest and penalties related to uncertain tax positions, of which there have been none, would be recognized in income tax expense. The tax years open to examination by U.S. tax authorities are 2013 to the present.

The amount of income taxes paid may vary in comparison to the current income tax expense recognized in the period due to differences in the timing between the tax expense recognition and the required tax remittance. The lag in remittance can vary between the different jurisdictions in which the Company operates.

On December 22, 2017, the U.S. enacted the Tax Cuts and Jobs Act ("TCJA"), which made significant modifications to U.S. federal income tax law, most of which are effective January 1, 2018. The TCJA, among other changes, (1) reduces the U.S. corporate tax rate from 35% to 21%, (2) imposes a one-time deemed repatriation tax on unremitted foreign earnings which were not previously subject to U.S. income tax, (3) moves the U.S. from a worldwide tax system towards a territorial tax system and (4) modifies the manner in which life and annuity and property and casualty insurance loss reserves are computed for federal income tax purposes. U.S. GAAP requires companies to recognize the effect of tax law changes in the period of enactment. As a result, the Company recorded a one-time tax benefit of $10,135 in the fourth quarter of 2017, a portion of which is considered provisional.

This one-time tax benefit from the TCJA is attributable to the remeasurement of the Company's U.S. deferred tax assets and liabilities on temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and their tax bases at the lower enacted U.S. corporate tax rate, as well as the tax on the deemed repatriation of foreign earnings, as follows.

(dollars in thousands)	Year Ended December 31, 2017
Tax rate change on unrealized gains (losses) on investments	$ (39,643)
Tax rate change on other temporary differences (provisional)	32,895
Tax on deemed repatriation of foreign earnings (provisional)	(3,387)
Total tax expense (benefit)	$ (10,135)

The impact of the tax rate change applied to temporary differences other than those related to investments is considered provisional because all the data necessary to calculate the underlying tax basis of certain temporary differences under the new tax law is not yet available and additional analysis is required. The largest provisional deferred tax component is related to the Company's unpaid losses and loss adjustment expenses. Other provisional deferred tax components are not significant. The tax on the deemed repatriation of foreign earnings is also considered provisional because a number of inputs to the calculation are incomplete, principally the earnings and profits of foreign investment which was not previously subject to the U.S. income tax. There is potential that authoritative clarification of technical issues associated with application of the TCJA, which are presently unclear, will be issued. The additional analysis required for provisional deferred tax components will be completed within the measurement period, which cannot exceed 12 months from the date of enactment, during preparation of the Company's 2017 tax return. Once completed, any adjustments to these provisional deferred tax components will be reflected in income tax expense.

The components of income taxes attributable to operations for the years ended December 31, 2017 and 2016 were as follows.

(dollars in thousands)	Years Ended December 31, 2017	2016
Current:		
United States	$ (55,284)	$ 6,615
Total current tax expense (benefit)	(55,284)	6,615
Deferred:		
United States	17,836	48,500
Total deferred tax expense	17,836	48,500
Income tax expense (benefit)	$ (37,448)	$ 55,115
Income tax expense (benefit) in net income (loss)	(37,448)	55,115
Income tax expense on other comprehensive income	99,884	26,456
Total income tax expense	$ 62,436	$ 81,571

The Company's income (loss) before income tax expense (benefit) was distributed as follows for the years ended December 31, 2017 and 2016.

(dollars in thousands)	Years Ended December 31, 2017	2016
Domestic:		
Bermuda	$ (115,518)	$ 187,557
Income (loss) before income taxes	$ (115,518)	$ 187,557

The expected tax provision computed on pre-tax income at 35% has been calculated as consolidated pre-tax income multiplied by the 35% U.S. statutory tax rate. A reconciliation of the difference between the provision for income taxes and the expected tax provision at the U.S. statutory tax rate is as follows for the years ended December 31, 2017 and 2016.

(dollars in thousands)	Years Ended December 31, 2017	2016
Expected income tax expense (benefit) computed on pre-tax income (loss) at 35% income tax rate	$ (40,431)	$ 65,644
Addition to income tax expense (benefit) resulting from:		
TCJA	(10,135)	—
Permanent differences		
Foreign loss	21,615	—
Tax exempt investment income	(9,655)	(9,487)
Other	1,158	(1,042)
Income tax expense (benefit)	$ (37,448)	$ 55,115

The following table presents the components of domestic and foreign deferred tax assets and liabilities.

(dollars in thousands)	December 31, 2017	December 31, 2016
Deferred tax asset:		
Life and annuity benefits	$ 40,914	$ 70,917
Impact of net unrealized gains on available for sale securities on life and annuity benefits	38,590	60,643
Property and casualty losses	29,794	51,533
Net unearned property and casualty premiums	25,593	36,380
Compensation related liabilities	6,248	12,909
Other differences between financial reporting and tax bases	1,872	2,005
Deferred tax asset	143,011	234,387
Deferred tax liability:		
Investments	123,970	84,766
Deferred ceding commissions, net	29,065	41,835
Other differences between financial reporting and tax bases	1,311	1,401
Deferred tax liability	154,346	128,002
Net deferred tax asset (liability)	$ (11,335)	$ 106,385

Based on the Company's historical and expected future taxable earnings, management believes that it is more likely than not that the Company will realize the benefit of the existing deferred tax assets at December 31, 2017. Adjustments to the valuation allowance are made when there is a change in management's assessment of the amount of deferred tax assets that are realizable.

The Company does not have any unrecognized tax benefits at December 31, 2017 and 2016.

5. Unpaid Losses and Loss Adjustment Expenses

a) The following table presents a reconciliation of consolidated beginning and ending reserves for losses and loss adjustment expenses.

(dollars in thousands)	Years Ended December 31, 2017	2016
Gross balance at January 1	$ 2,924,062	$ 3,008,501
Less: Reinsurance recoverables on unpaid losses	(675,188)	(668,635)
Net balance at January 1	2,248,874	2,339,866
Incurred losses related to:		
Current year	956,576	473,839
Prior years	(94,515)	(85,494)
Total incurred	862,061	388,345
Paid losses related to:		
Current year	(165,110)	(79,776)
Prior years	(310,753)	(364,669)
Total paid	(475,863)	(444,445)
Commutations	(46,889)	(13,687)
Foreign currency revaluation	17,919	(21,205)
Net balance at December 31	2,606,102	2,248,874
Plus: Reinsurance recoverables on unpaid losses	795,791	675,188
Gross balance at December 31	$ 3,401,893	$ 2,924,062

In 2017, incurred losses and loss adjustment expenses included $94,515 of net favorable development on prior years' loss reserves, which was comprised of net favorable development for the Company's reinsurance reserves of $22,467 and of net favorable development for the Company's insurance reserves of $72,048. The net favorable development for the reinsurance reserves was across several lines of business but principally related to the whole account, property and aviation lines of business ($12,994, $11,288 and $6,710 of net favorable development, respectively) partially offset by $11,202 of net unfavorable development related to the professional liability line of business. The net favorable development for the insurance reserves was across several lines of business but principally related to the professional liability and general liability lines of business ($38,875 and $29,435, respectively).

In 2016, incurred losses and loss adjustment expenses included $85,494 of net favorable development on prior years' loss reserves, which was comprised of net favorable development for the Company's reinsurance reserves of $46,691 and of net favorable development for the Company's insurance reserves of $38,803. The net favorable development for the reinsurance reserves was across several lines of business but principally related to the property, marine/energy, medical malpractice and aviation lines of business ($23,591, $11,003, $6,657, and $6,594 of net favorable development, respectively) partially offset by $3,571 of net unfavorable development related to the auto line of business. The net favorable development for the insurance reserves was across several lines of business but principally related to the professional liability, property and aviation lines of business ($32,386, $12,186, and $4,068 of net favorable development, respectively) partially offset by $9,837 of net unfavorable development related to the general liability line of business.

The Company uses a variety of techniques to establish the liabilities for unpaid losses and loss adjustment expenses based upon estimates of the ultimate amounts payable. The Company maintains reserves for specific claims incurred and reported ("case reserves") and reserves for claims incurred but not reported ("IBNR" reserves), which include expected development on reported claims. The Company does not discount its reserves for losses and loss adjustment expenses to reflect estimated

present value, except for reserves assumed in connection with an acquisition, which are recorded at fair value at the acquisition date.

As of any balance sheet date, all claims have not yet been reported, and some claims may not be reported for many years. As a result, the liability for unpaid losses and loss adjustment expenses includes significant estimates for incurred but not reported claims.

There is normally a time lag between when a loss event occurs and when it is actually reported to the Company. The actuarial methods that the Company uses to estimate losses have been designed to address the lag in loss reporting as well as the delay in obtaining information that would allow the Company to more accurately estimate future payments. There is also a time lag between cedents establishing case reserves and re-estimating their reserves, and notifying the Company of the new or revised case reserves. As a result, the reporting lag is more pronounced in reinsurance contracts than in the insurance contracts due to the reliance on ceding companies to report their claims. On reinsurance transactions, the reporting lag will generally be 60 to 90 days after the end of a reporting period, but can be longer in some cases. Based on the experience of the Company's actuaries and management, loss development factors and trending techniques are selected to mitigate the difficulties caused by reporting lags. The loss development and trending factor selections are evaluated at least annually and updated using cedent specific and industry data.

IBNR reserves are based on the estimated ultimate cost of settling claims, including the effects of inflation and other social and economic factors, using past experience adjusted for current trends and any other factors that would modify past experience. IBNR reserves, which include expected development on reported claims, are generally calculated by subtracting paid losses and loss adjustment expenses and case reserves from estimated ultimate losses and loss adjustment expenses. IBNR reserves were 67% of total unpaid losses and loss adjustment expenses at December 31, 2017 compared to 70% at December 31, 2016.

In establishing liabilities for unpaid losses and loss adjustment expenses, the Company's actuaries estimate an ultimate loss ratio, by accident year or policy year, for each product line with input from underwriting and claims associates. For product lines in which loss reserves are established on a policy year basis, the Company has developed a methodology to convert from policy year to accident year for financial reporting purposes. In estimating an ultimate loss ratio for a particular line of business, the actuaries may use one or more actuarial reserving methods and select from these a single point estimate. To varying degrees, these methods include detailed statistical analysis of past claim reporting, settlement activity, claim frequency and severity, policyholder loss experience, industry loss experience and changes in market conditions, policy forms and exposures. Greater judgment may be required when new product lines are introduced or when there have been changes in claims handling practices, as the statistical data available may be insufficient. These estimates also reflect implicit and explicit assumptions regarding the potential effects of external factors, including economic and social inflation, judicial decisions, changes in law, general economic conditions and recent trends in these factors. Management believes the process of evaluating past experience, adjusted for the effects of current developments and anticipated trends, is an appropriate basis for predicting future events.

Loss reserves are established at management's best estimate, which is generally higher than the corresponding actuarially calculated point estimate. The actuarial point estimate represents the actuaries' estimate of the most likely amount that will ultimately be paid to settle the loss reserves that are recorded at a particular point in time; however, there is inherent uncertainty in the point estimate as it is the expected value in a range of possible reserve estimates. In some cases, actuarial analyses, which are based on statistical analysis, cannot fully incorporate all of the subjective factors that affect development of losses. In other cases, management's perspective of these more subjective factors may differ from the actuarial perspective. Subjective factors where management's perspective may differ from that of the actuaries include: the credibility and timeliness of claims information received from third parties, economic and social inflation, judicial decisions, changes in law, changes in underwriting or claims handling practices, general economic conditions, the risk of moral hazard and other current and developing trends within the insurance and reinsurance markets, including the effects of competition. As a result, the actuarially calculated point estimates for each of line of business represents starting points for management's quarterly review of loss reserves.

Inherent in the Company's reserving practices is the desire to establish loss reserves that are more likely redundant than deficient. As such, the Company seeks to establish loss reserves that will ultimately prove to be adequate. Furthermore, the Company's philosophy is to price its insurance products to make an underwriting profit. Management continually attempts to improve its loss estimation process by refining its ability to analyze loss development patterns, claim payments and other information, but uncertainty remains regarding the potential for adverse development of estimated ultimate liabilities.

Management currently believes the Company's gross and net reserves are adequate. However, there is no precise method for evaluating the impact of any significant factor on the adequacy of reserves, and actual results will differ from original estimates.

b) The following tables present loss development information, by accident year, for the Company's Insurance and Reinsurance operations, including cumulative incurred and paid losses and allocated loss adjustment expenses, net of reinsurance, as well as the corresponding amount of IBNR reserves as of December 31, 2017. This level of disaggregation is consistent with how the Company analyzes loss reserves for both internal and external reporting purposes. The loss development information for the year ended December 31, 2016 is presented as supplementary information. Loss development information for years prior to 2016, which would also be supplemental information, has not been presented. Insurance business written by the Company's affiliates and ceded to the Company are included in Insurance operations. Assumed reinsurance business written by the Company's affiliates and ceded to the Company are included in Reinsurance operations. All amounts included in the tables below related to transactions denominated in a foreign currency have been translated into U.S. dollars using the exchange rates in effect at December 31, 2017.

The Insurance operations table below also includes claim frequency information, by accident year. The Company defines a claim as a single claim incident, per policy, which may include multiple claimants and multiple coverages on a single policy. Claim counts include claims closed without a payment as well as claims where the Company is monitoring to determine if an exposure exists, even if a reserve has not been established.

Insurance operations

	Ultimate Incurred Losses and Allocated Loss Adjustment Expenses, Net of Reinsurance			
	Unaudited			
(in thousands)	Years Ended December 31,		Total of Incurred-but-Not-Reported Liabilities, Net of Reinsurance	Cumulative Number of Reported Claims
Accident Year	2016	2017	December 31, 2017	
2016	$ 195,650	$ 218,472	$ 95,761	4
2017		449,771	230,631	9
		$ 668,243		

	Cumulative Paid Losses and Allocated Loss Adjustment Expenses, Net of Reinsurance	
	Unaudited	
	Years Ended December 31,	
Accident Year	2016	2017
2016	$ 27,353	$ 67,317
2017		74,651
		$ 141,968
All outstanding liabilities for unpaid losses and loss adjustment expenses before 2016, net of reinsurance		492,670
Total liabilities for unpaid losses and loss adjustment expenses, net of reinsurance		$ 1,018,945

Reinsurance operations

	Ultimate Incurred Losses and Allocated Loss Adjustment Expenses, Net of Reinsurance		
	Unaudited		Total of Incurred-but-Not-Reported Liabilities, Net of Reinsurance
(in thousands)	Years Ended December 31,		
Accident Year	2016	2017	December 31, 2017
2016	$ 270,393	$ 282,621	$ 137,127
2017		498,684	286,969
		$ 781,305	

	Cumulative Paid Losses and Allocated Loss Adjustment Expenses, Net of Reinsurance	
	Unaudited	
	Years Ended December 31,	
Accident Year	2016	2017
2016	$ 44,432	$ 102,710
2017		88,216
		$ 190,926
All outstanding liabilities for unpaid losses and loss adjustment expenses before 2016, net of reinsurance		965,213
Total liabilities for unpaid losses and loss adjustment expenses, net of reinsurance		$ 1,555,592

All of the business contained within the Company's Reinsurance operations represents treaty business that is assumed from other insurance or 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 excluded claim count information from the Reinsurance operations disclosures.

The following table presents supplementary information about average historical claims duration as of December 31, 2017 based on cumulative incurred and paid losses and allocated loss adjustment expenses presented above.

	Average Annual Percentage payout of Incurred Losses by Age (in Years), Net of Reinsurance	
Unaudited	1	2
Insurance	14.6%	18.3%
Reinsurance	16.7%	20.6%

The following table reconciles the net incurred and paid loss development tables to the liability for losses and loss adjustment expenses in the consolidated balance sheet.

(dollars in thousands)	December 31, 2017
Net outstanding liabilities	
Insurance	$ 1,018,945
Reinsurance	1,555,592
Other Insurance (Discontinued Lines)	7,128
Liabilities for unpaid losses and loss adjustment expenses, net of reinsurance	2,581,665
Reinsurance recoverable on unpaid losses	
Insurance	611,722
Reinsurance	184,512
Other Insurance (Discontinued Lines)	(443)
Total reinsurance recoverable on unpaid losses	795,791
Unallocated loss adjustment expenses	24,437
Total gross liability for unpaid losses and loss adjustment expenses	$ 3,401,893

6. Life and Annuity Benefits

The following table presents life and annuity benefits.

	December 31,	
(dollars in thousands)	2017	2016
Life	$ 134,526	$ 138,489
Annuities	895,298	853,310
Accident and health	66,654	77,329
Total	$ 1,096,478	$ 1,069,128

Life and annuity benefits are compiled on a reinsurance contract-by-contract basis and are discounted using standard actuarial techniques and cash flow models. Since the development of the life and annuity reinsurance reserves is based upon cash flow projection models, the Company must make estimates and assumptions based on cedent experience, industry mortality tables, and expense and investment experience, including a provision for adverse deviation. The assumptions used to determine policy benefit reserves were determined at the inception date and are generally locked-in for the life of the contract unless an unlocking event occurs. To the extent existing policy reserves, together with the present value of future gross premiums and expected investment income earned thereon, are not adequate to cover the present value of future benefits, settlement and maintenance costs, the locked-in assumptions are revised to current best estimate assumptions and a charge to earnings for life and annuity benefits is recognized at that time.

During 2017 and 2016, as a result of this review, the Company recorded an increase of $8,330 and $45,192, respectively, to the life and annuity benefits through other comprehensive income which was triggered by the recognition of unrealized gains and losses on investments throughout the year.

Because of the assumptions and estimates used in establishing the Company's reserves for life and annuity benefit obligations and the long-term nature of these reinsurance contracts, the ultimate liability may be greater or less than the estimates. The average discount rate for the life and annuity benefit reserves is 3.75% as at December 31, 2017 and 2016.

As of December 31, 2017, the largest life and annuity benefits reserve for a single contract was 34% of the total.

No annuities included in life and annuity benefits in the consolidated balance sheet are subject to discretionary withdrawal. Included in deposit liabilities as of December 31, 2017 are annuities of $1,342 (2016-$1,500), which are subject to discretionary withdrawal. Deposit liabilities also include $24,024 as of December 31, 2017 (2016-$26,470) representing the account value of a universal life reinsurance contract.

7. Fair Value Measurements

FASB ASC 820-10, *Fair Value Measurements and Disclosures,* establishes a three-level hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). If the inputs used to measure the assets or liabilities fall within different levels of the hierarchy, the classification is based on the lowest level input that is significant to the fair value measurement of the asset or liability.

Classification of assets and liabilities within the hierarchy considers the markets in which the assets and liabilities are traded and the reliability and transparency of the assumptions used to determine fair value. The hierarchy requires the use of observable market data when available. The levels of the hierarchy are defined as follows:

Level 1 - Inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities traded in active markets.

Level 2 - Inputs to the valuation methodology include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the asset or liability and market-corroborated inputs.

Level 3 - Inputs to the valuation methodology are unobservable for the asset or liability and are significant to the fair value measurement.

In accordance with FASB ASC 820, the Company determines fair value based on the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In determining fair value, the Company uses various methods, including the market, income and cost approaches. The Company uses valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. The following section describes the valuation methodologies used by the Company to measure assets and liabilities at fair value, including an indication of the level within the fair value hierarchy in which each asset or liability is generally classified.

Investments, at fair value. Investments are recorded at fair value on a recurring basis and include fixed maturity securities, equity securities, short-term investments, hybrid financial instruments, and the investment in affiliate. Short-term investments include certificates of deposit, commercial paper, discount notes and treasury bills with original maturities of one year or less. Fair value for investments is determined by the Company after considering various sources of information, including information provided by a third party pricing service. The pricing service provides prices for substantially all of the Company's fixed maturity securities and equity securities. In determining fair value, the Company generally does not adjust the prices obtained from the pricing service. The Company obtains an understanding of the pricing service's valuation methodologies and related inputs, which include, but are not limited to, reported trades, benchmark yields, issuer spreads, bids, offers, duration, credit ratings, estimated cash flows and prepayment speeds. The Company validates prices provided by the pricing service by reviewing prices from other pricing sources and analyzing pricing data in certain instances.

The Company has evaluated the various types of securities in its investment portfolio to determine an appropriate fair value hierarchy level based upon trading activity and the observability of market inputs. Level 1 investments include those traded on an active exchange, such as the New York Stock Exchange. Level 2 investments include U.S. Treasury securities, government-

sponsored enterprises, municipal bonds, foreign government bonds, commercial mortgage-backed securities, residential mortgage-backed securities, asset-backed securities, corporate debt securities, and hybrid financial instruments. Level 3 investments include the Company's investment in affiliate, as further described in note 10, which are not traded on an active exchange and are valued using unobservable inputs.

Fair value for investments is measured based upon quoted prices in active markets, if available. Due to variations in trading volumes and the lack of quoted market prices, fixed maturity securities are classified as Level 2 investments. The fair value of fixed maturity securities is normally derived through recent reported trades for identical or similar securities, making adjustments through the reporting date based upon available market observable data described above. If there are no recent reported trades, the fair value of fixed maturity securities may be derived through the use of matrix pricing or model processes, where future cash flow expectations are developed based upon collateral performance and discounted at an estimated market rate. Significant inputs used to determine the fair value of obligations of states, municipalities and political subdivisions, corporate bonds and obligations of foreign governments include reported trades, benchmark yields, issuer spreads, bids, offers, credit information and estimated cash flows. Significant inputs used to determine the fair value of commercial mortgage-backed securities, residential mortgage-backed securities and asset-backed securities include the type of underlying assets, benchmark yields, prepayment speeds, collateral information, tranche type and volatility, estimated cash flows, credit information, default rates, recovery rates, issuer spreads and the year of issue.

Due to the significance of unobservable inputs required in measuring the fair value of the Company's investment in affiliate, this investment is classified as Level 3 within the fair value hierarchy. Changes in fair value of the Company's investment in affiliate is included in net realized and unrealized investment gains (losses) in net income. The Company's investment in affiliate is its investment in the Markel Diversified Fund (the "Fund"), a segregated account of Markel CATCo Reinsurance Fund Ltd. The fair value of the Fund is derived using the reported net asset value ("NAV") as the primary input, as well as other observable and unobservable inputs as deemed necessary by management. Management has obtained an understanding of the inputs, assumptions, process, and controls used to determine NAV, which is calculated by an independent third party. Unobservable inputs to the NAV calculations include assumptions around premium earnings patterns and loss reserve estimates for the underlying securitized reinsurance contracts in which the Fund invests. Significant unobservable inputs used in the valuation of the Fund's investments include an adjustment to include the fair value of the equity that was issued by one of the Fund's underlying investments in exchange for notes receivable, rather than cash, which is excluded from NAV. In general, the Company’s investment in the Fund is redeemable annually as of January 1st of each calendar year. However, in the event losses are incurred during the year, the Fund has the ability to designate a portion of the Company’s investment as a side pocket, which can prevent it from being redeemed. The amount of investment in affiliate at fair value subject to side pockets as of December 31, 2017 was $80,843.

The Company's valuation policies and procedures for the Level 3 investment are determined by management. Fair value measurements are analyzed quarterly to ensure the change in fair value from prior periods is reasonable relative to management's understanding of the underlying investments, recent market trends and external market data, which includes the price of a comparable security and an insurance-linked security index.

The following tables present the balances of assets measured at fair value on a recurring basis by level within the fair value hierarchy.

(dollars in thousands)	December 31, 2017			
	Level 1	Level 2	Level 3	Total
Fixed maturity securities:				
U.S. Treasury	$ —	$ 1,151	$ —	$ 1,151
U.S. government-sponsored enterprises	—	101,533	$ —	101,533
Obligations of states, municipalities and political subdivisions	—	775,622	—	775,622
Foreign governments	—	763,785	—	763,785
Commercial mortgage-backed	—	250,818	—	250,818
Residential mortgage-backed	—	303,480	—	303,480
Asset-backed	—	10,330	—	10,330
Corporate	—	401,183	—	401,183
Total fixed maturity securities	—	2,607,902	—	2,607,902
Equity securities:				
Insurance, banks and other financial institutions	566,174	—	—	566,174
Industrial, consumer and all other	868,897	—	—	868,897
Total equity securities	1,435,071	—	—	1,435,071
Short-term investments	223,903	—	—	223,903
Investment in affiliate	—	—	125,312	125,312
Total investments	$ 1,658,974	$ 2,607,902	$ 125,312	$ 4,392,188

(dollars in thousands)	December 31, 2016			
	Level 1	Level 2	Level 3	Total
Fixed maturity securities:				
U.S. Treasury	$ —	$ 103,178	$ —	$ 103,178
U.S. government-sponsored enterprises	—	160,835	—	160,835
Obligations of states, municipalities and political subdivisions	—	1,017,043	—	1,017,043
Foreign governments	—	717,711	—	717,711
Commercial mortgage-backed	—	279,988	—	279,988
Residential mortgage-backed	—	328,540	—	328,540
Asset-backed	—	22,665	—	22,665
Corporate	—	664,959	—	664,959
Total fixed maturity securities	—	3,294,919	—	3,294,919
Equity securities:				
Insurance, banks and other financial institutions	441,435		—	441,435
Industrial, consumer and all other	614,266		—	614,266
Total equity securities	1,055,701	—	—	1,055,701
Short-term investments	68,463		—	68,463
Other investments	—	41,380	—	41,380
Investment in affiliate	$ —	$ —	$ 137,069	137,069
Total investments at fair value	$ 1,124,164	$ 3,336,299	$ 137,069	$ 4,597,532

The following table summarizes changes in Level 3 investments measured at fair value on a recurring basis.

(dollars in thousands)	2017	2016
Investment in affiliate at fair value, beginning of period	$ 137,069	$ —
Purchases	50,000	125,000
Sales	—	—
Total gains included in:	—	—
Net income	(61,757)	12,069
Other comprehensive income (loss)	—	—
Transfers into Level 3	—	—
Transfers out of Level 3	—	—
Investment in affiliate at fair value, end of period	$ 125,312	$ 137,069
Net unrealized gains included in net income relating to assets held at December 31, 2017 and 2016 [1]	$ (61,757)	$ 12,069

[1] Included in net realized and unrealized gains (losses) in the consolidated statements of income and comprehensive income.

There were no transfers into or out of Level 1, Level 2 or Level 3 during 2017 or 2016.

The Company did not have any assets or liabilities measured at fair value on a non-recurring basis during the years ended December 31, 2017 and 2016.

8. Reinsurance

The Company uses reinsurance and retrocessional reinsurance to manage its net retention on individual risks and overall exposure to losses while providing it with the ability to offer policies with sufficient limits to meet policyholder needs. In a reinsurance transaction, an insurance company transfers, or cedes, all or part of its exposure in return for a portion of the premium. In a retrocessional reinsurance transaction, a reinsurance company transfers, or cedes, all or part of its exposure in return for a portion of the premium. The ceding of insurance does not legally discharge the Company from its primary liability for the full amount of the policies, and the Company will be required to pay the loss and bear collection risk if the reinsurer fails to meet its obligations under the reinsurance or retrocessional agreement.

A credit risk exists with ceded reinsurance to the extent that any reinsurer is unable to meet the obligations assumed under the reinsurance or retrocessional contracts. Allowances are established for amounts deemed uncollectible. The Company evaluates the financial condition of its reinsurers and monitors concentration of credit risk arising from its exposure to individual reinsurers.

As of December 31, 2017, 85.0% of reinsurance recoverable on paid and unpaid losses were with reinsurers rated “A” or above by A.M. Best Company, 3.3% are rated “A-” and the remaining 11.7% of reinsurance recoverables are with “NR-not rated” reinsurers. To further reduce credit exposure to reinsurance recoverable balances, the Company has received collateral, including letters of credit and trust accounts, from certain reinsurers. Collateral related to these reinsurance agreements is available, without restriction, when the Company pays losses covered by the reinsurance agreements.

The following table summarizes the effect of reinsurance and retrocessional reinsurance on premiums written and earned.

	Years Ended December 31,			
Property and Casualty	Written		Earned	
	2017	2016	2017	2016
Direct	$ 217,604	$ 222,730	$ 217,963	$ 223,064
Assumed	1,097,881	894,824	1,035,842	710,617
Ceded	(187,729)	(214,135)	(203,736)	(223,054)
Net premiums	$ 1,127,756	$ 903,419	$ 1,050,069	$ 710,627

Incurred losses and loss adjustment expenses were net of reinsurance recoverables (ceded incurred losses and loss adjustment expenses) of $240,674 and $84,467 for the years ended December 31, 2017 and 2016, respectively.

The percentage of ceded earned premiums to gross earned premiums was 16% and 24% for the years ended December 31, 2017 and 2016, respectively.

9. Commitments and Contingencies

a) Lease commitments

The Company leases substantially all of its facilities and certain furniture and equipment under noncancelable operating leases with remaining terms up to six years. The minimum annual rental commitments, excluding taxes, insurance and other operating costs payable directly by the Company, for noncancelable operating leases at December 31, 2017 will range from $540 to $1,823 per year over the next six years. Rental expense was $1,326 and $1,373 for the years ended December 31, 2017 and 2016, respectively.

b) Concentrations of credit risk

The Company's portfolio of cash, fixed maturity securities, equity securities, and hybrid financial instruments is managed following prudent standards of diversification. The guidelines limit the allowable holdings of a single issue and issuers. The Company believes that there are no significant concentrations of credit risk associated with its portfolio of cash, fixed maturity, and equity securities.

At December 31, 2017, investments in securities issued by the U.S. Treasury, U.S. government agencies, U.S. government-sponsored enterprises, German Government, Berkshire Hathaway Inc., and Blackrock Inc. were the only investments in any one issuer that exceeded 10% of shareholder's equity. At December 31, 2016, investments in securities issued by the U.S. Treasury, U.S. government agencies and U.S. government-sponsored enterprises were the only investments in any one issuer that exceeded 10% of shareholder's equity.

At December 31, 2017, the Company's ten largest equity holdings represented $702,270, or 49%, of the equity portfolio. Investments in the property and casualty insurance industry represented $361,981, or 25% of the equity portfolio at December 31, 2017.

Premiums receivable comprise amounts due within one year or amounts not yet due. As of December 31, 2017 and 2016, the Company's largest premiums receivable balances from a single unrelated party were 2% and 3% of total premiums receivable, respectively.

For the years ended December 31, 2017 and 2016, brokered transactions accounted for the majority of the Company's property and casualty gross premiums written. For the years ended December 31, 2017 and 2016, the top three independent producing intermediaries and brokerage firms accounted for 14.7%, 12.7% and 4.2%; and 14.4%, 13.7% and 5.7%, respectively, of property and casualty gross premiums written.

c) Credit facilities

The Company holds a letter of credit facility with $100,000 of committed and $200,000 of uncommitted capacity that expires on November 25, 2018. This facility allows for the issuance of letters of credit in U.S. dollars and other currencies. At December 31, 2017 and 2016, $250,570 and $240,656 of letters of credit, respectively, denominated in various currencies, were issued and outstanding under this credit facility.

The Company holds a letter of credit facility with $40,000 of capacity. This facility expired on December 9, 2016. At December 31, 2017 and 2016, $nil and $10,413 of letters of credit, respectively, were issued and outstanding under this credit facility.

At December 31, 2017, the Company was in compliance with all covenants contained in its credit facilities. To the extent that the Company is not in compliance with its covenants, the Company's access to these credit facilities could be restricted.

10. Related Party Transactions

a) Amounts due from / to affiliates

The amounts due from / to affiliates consist of the following as of December 31, 2017 and 2016.

	December 31,	
(dollars in thousands)	2017	2016
Loan to Markel Corporation	$ 285,000	$ 285,000
Loan to Markel Ventures, Inc.	130,000	50,000
Note payable to Markel CATCo Reinsurance Fund Ltd.	(62,500)	(62,500)
Note payable to Markel Corporation	(80,000)	—
Amounts due from (to) affiliates, net	10,289	22,937
Total	$ 282,789	$ 295,437

On July 22, 2014, the Company entered into a $50,000 loan agreement with Markel Ventures, Inc, a company related by common control. The loan bore interest at a fixed rate of 3.65% per annum. The loan was due on March 30, 2024 and was guaranteed by Markel. The loan was repaid in October 2017.

On December 16, 2015, ADS entered into a $285,000 loan agreement with Markel Corporation. The loan bears interest at a fixed rate of 4.18% per annum. The loan is due on December 31, 2025.

On January 1, 2016, the Company entered into a $62,500 on-demand funding commitment note agreement with Markel CATCo Reinsurance Fund Ltd. The note bore interest at a fixed rate of 1.93% per annum for the year ended December 31, 2016. Effective January 1, 2017, the interest rate was changed to 3.49% per annum. Subsequent to December 31, 2017, the note was amended to extend the maturity date to December 31, 2018 and $37,625 of the note was repaid.

On August 11, 2017, the Company entered into a $130,000 loan agreement with Markel Ventures, Inc. The loan bears interest at a fixed rate of 3.67% per annum. The loan is due on August 11, 2027 and is guaranteed by Markel. Subsequent to December 31, 2017, $50,000 of this loan was repaid.

On December 27, 2017, the Company entered into an $80,000 note payable with Markel Corporation. The note is due on demand and bears interest at a variable rate per annum equal to the short-term annual Applicable Federal Rate published by the U.S. Internal Revenue Service, reset monthly. The note was repaid on March 9, 2018.

The amounts due from/to affiliates represent amounts receivable and payable from/to companies within the Markel Group. The balances arise in the normal course of business and are due on demand and are non-interest bearing.

The Company has also deposited funds at Lloyd's for the benefit of Lloyd's syndicates related by common control. The amount held in deposit was $484,799 as of December 31, 2017 (2016 - $361,993) and this amount is included in restricted assets in note 3.

b) Markel Global Reinsurance Company

The Company provides reinsurance to Markel Global Reinsurance Company ("Markel Global Re"), formerly known as Alterra Reinsurance USA, Inc., a company related by common control. Management believes the terms of the reinsurance agreement are similar to those of an arm's length transaction with an unrelated party. The accompanying consolidated balance sheets and consolidated statements of income and comprehensive income include the following amounts related to the reinsurance agreement with Markel Global Re.

	December 31,	
(dollars in thousands)	2017	2016
Balance Sheet		
Premiums receivable	$ 222,615	$ 195,973
Deferred policy acquisition costs	77,816	66,180
Property and casualty losses	608,794	517,822
Unearned property and casualty premiums	239,162	223,037
Reinsurance balances payable	39,245	29,421
Income Statement		
Gross premiums written	$ 295,662	$ 267,502
Net earned premiums	279,888	241,508
Net losses and loss expenses	231,692	167,700
Acquisition costs	104,011	84,792

c) Lloyd's Syndicates

The Company provides reinsurance to Lloyd's syndicates and corporate capital providers which are related by common control. Management believes the terms of the reinsurance agreements are similar to those of an arm's length transaction with an unrelated party. The accompanying consolidated balance sheets and consolidated statements of income and comprehensive income include the following amounts related to such reinsurance agreements.

(dollars in thousands)	December 31, 2017	December 31, 2016
Balance Sheet		
Premiums receivable	$ 343,681	$ 157,261
Deferred policy acquisition costs	62,373	64,440
Property and casualty losses	367,362	110,073
Unearned property and casualty premiums	195,624	159,231
Reinsurance balances payable	511	511
Income Statement		
Gross premiums written	$ 484,199	$ 346,411
Net earned premiums	452,662	184,735
Net losses and loss expenses	376,280	147,853
Acquisition costs	184,961	85,692

d) Markel International Insurance Company Limited

The Company provides reinsurance to Markel International Insurance Company Limited ("MIICL"), a company related by common control. Management believes the terms of the reinsurance agreements are similar to those of an arm's length transaction with an unrelated party. The accompanying consolidated balance sheets and consolidated statements of income and comprehensive income include the following amounts related to the reinsurance agreements with MIICL.

(dollars in thousands)	December 31, 2017	December 31, 2016
Balance Sheet		
Premiums receivable	$ 6,428	$ 1,924
Deferred policy acquisition costs	1,598	1,395
Property and casualty losses	254,051	259,780
Unearned property and casualty premiums	9,474	10,430
Reinsurance balances payable	5,853	2,671
Income Statement		
Gross premiums written	$ 14,833	$ 17,291
Net earned premiums	16,032	18,098
Net losses and loss expenses	1,038	65
Acquisition costs	271	3,869

11. Statutory Financial Information

Statutory capital and surplus information for the Company as of December 31, 2017 and 2016 is summarized below.

(dollars in thousands)	**2017**	2016
Required statutory capital and surplus	$ 958,602	$ 962,322
Actual statutory capital and surplus	1,779,387	2,189,649
Statutory net income (loss)	$ (78,070)	$ 132,441

Under the Bermuda Insurance Act, 1978 and related regulations, the Company is subject to capital requirements calculated using the Bermuda Solvency and Capital Requirement, or BSCR model, which is a standardized statutory risk-based capital model used to measure the risk associated with Markel Bermuda's assets, liabilities and premiums. The Company's required statutory capital and surplus under the BSCR model is referred to as the enhanced capital requirement ("ECR"). The Company is required to calculate and submit the ECR to the Bermuda Monetary Authority ("BMA"), annually. Following receipt of the submission of Markel Bermuda's ECR the BMA has the authority to impose additional capital requirements (capital add-ons) if it deems necessary. If a company fails to maintain or meet its ECR, the BMA may take various degrees of regulatory action. As of December 31, 2017, Markel Bermuda met its ECR.

Markel Bermuda is also required under its Class 4 license to maintain a minimum liquidity ratio whereby the value of its relevant assets is not less than 75% of the amount of its relevant liabilities for general business. Relevant assets include cash and cash equivalents, fixed maturities, other investments, accrued interest income, premiums receivable, and funds withheld. The relevant liabilities are total general business insurance reserves and total other liabilities, less sundry liabilities. As of December 31, 2017, Markel Bermuda met the minimum liquidity ratio requirement.

Markel Bermuda may declare dividends subject to it continuing to meet its solvency and capital requirements, which includes continuing to hold statutory capital and surplus equal to or exceeding its ECR. The Company is prohibited from declaring or paying in any fiscal year dividends of more than 25% of its prior year's statutory capital and surplus unless the Company files with the BMA an affidavit signed by at least two members of the Board of Directors attesting that a dividend would not cause the Company to fail to meet its relevant margins. As of December 31, 2017, Markel Bermuda could pay dividends in 2018 of approximately $444,847 ($547,412 as of December 31, 2016) without providing an affidavit to the BMA.

The payment of dividends is limited by applicable regulations and statutory requirements of Bermuda. The Company is prohibited from declaring or paying a dividend if such payment would reduce its respective regulatory capital below the required minimum as required by law and regulatory practice. The Company is also subject to certain restrictions under its credit facilities that affect its ability to pay dividends. The Company paid dividends of $330,000 during 2017 (2016-$200,000).

12. Pensions

The Company provides pension benefits to eligible employees and their dependents through various defined contribution plans, which vary for each subsidiary. Under these plans, the Company and its employees each contribute a certain percentage of the employee's gross salary into the plan each month. The Company's contributions are immediately 100% vested. Pension expenses totaled $1,026 for the year ended December 31, 2017 (2016-$949).

13. Subsequent Events

Subsequent events have been evaluated through April 25, 2018.