

THE PROGRESSIVE CORPORATION

2018 Annual Report to Shareholders



**THE PROGRESSIVE CORPORATION
2018 ANNUAL REPORT TO SHAREHOLDERS**

The Progressive Corporation and Subsidiaries
Consolidated Statements of Comprehensive Income
For the years ended December 31,

(millions – except per share amounts)	2018	2017	2016
Revenues			
Net premiums earned	\$30,933.3	\$25,729.9	\$22,474.0
Investment income	820.5	563.1	478.9
Net realized gains (losses) on securities:			
Net realized gains (losses) on security sales	170.7	115.7	155.8
Net holding period gains (losses) on securities	(507.9)	(1.6)	(17.9)
Net impairment losses recognized in earnings	(68.3)	(64.5)	(86.8)
Total net realized gains (losses) on securities	(405.5)	49.6	51.1
Fees and other revenues	472.2	370.6	332.5
Service revenues	158.5	126.8	103.3
Other gains (losses)	0	(1.0)	1.6
Total revenues	31,979.0	26,839.0	23,441.4
Expenses			
Losses and loss adjustment expenses	21,721.0	18,808.0	16,879.6
Policy acquisition costs	2,573.7	2,124.9	1,863.8
Other underwriting expenses	4,195.8	3,480.7	2,972.0
Investment expenses	24.3	23.9	22.4
Service expenses	134.1	109.5	92.0
Interest expense	166.5	153.1	140.9
Total expenses	28,815.4	24,700.1	21,970.7
Net Income			
Income before income taxes	3,163.6	2,138.9	1,470.7
Provision for income taxes	542.6	540.8	413.5
Net income	2,621.0	1,598.1	1,057.2
Net (income) loss attributable to noncontrolling interest (NCI)	(5.7)	(5.9)	(26.2)
Net income attributable to Progressive	2,615.3	1,592.2	1,031.0
Other Comprehensive Income (Loss)			
Changes in:			
Total net unrealized gains (losses) on securities	(99.3)	355.4	130.6
Net unrealized losses on forecasted transactions	0.8	(5.4)	(1.2)
Foreign currency translation adjustment	0	1.1	0.4
Other comprehensive income (loss)	(98.5)	351.1	129.8
Other comprehensive (income) loss attributable to NCI	3.3	(2.3)	3.2
Comprehensive income attributable to Progressive	\$ 2,520.1	\$ 1,941.0	\$ 1,164.0
Computation of Earnings Per Common Share			
Net income attributable to Progressive	\$ 2,615.3	\$ 1,592.2	\$ 1,031.0
Less: Preferred share dividends	21.4	0	0
Net income available to common shareholders	\$ 2,593.9	\$ 1,592.2	\$ 1,031.0
Average common shares outstanding – Basic	582.4	580.8	581.7
Net effect of dilutive stock-based compensation	4.3	4.9	3.3
Total average equivalent common shares – Diluted	586.7	585.7	585.0
Basic: Earnings per common share	\$ 4.45	\$ 2.74	\$ 1.77
Diluted: Earnings per common share	\$ 4.42	\$ 2.72	\$ 1.76

See notes to consolidated financial statements.

The Progressive Corporation and Subsidiaries

Consolidated Balance Sheets

December 31,

(millions – except per share amount)	2018	2017
Assets		
Available-for-sale, at fair value:		
Fixed maturities (amortized cost: \$28,255.9 and \$20,209.9)	\$28,111.5	\$20,201.7
Short-term investments (amortized cost: \$1,795.9 and \$2,869.4)	1,795.9	2,869.4
Total available-for-sale securities	29,907.4	23,071.1
Equity securities, at fair value:		
Nonredeemable preferred stocks (cost: \$1,002.6 and \$698.6)	1,033.9	803.8
Common equities (cost: \$1,148.9 and \$1,499.0)	2,626.1	3,399.8
Total equity securities	3,660.0	4,203.6
Total investments	33,567.4	27,274.7
Cash and cash equivalents	69.5	265.0
Restricted cash	5.5	10.3
Total cash, cash equivalents, and restricted cash	75.0	275.3
Accrued investment income	190.8	119.7
Premiums receivable, net of allowance for doubtful accounts of \$252.1 and \$210.9	6,497.1	5,422.5
Reinsurance recoverables	2,696.1	2,273.4
Prepaid reinsurance premiums	309.7	203.3
Deferred acquisition costs	951.6	780.5
Property and equipment, net of accumulated depreciation of \$1,033.2 and \$940.6	1,131.7	1,119.6
Goodwill	452.7	452.7
Intangible assets, net of accumulated amortization of \$247.7 and \$175.7	294.6	366.6
Net deferred income taxes	43.2	0
Other assets	365.1	412.9
Total assets	\$46,575.0	\$38,701.2
Liabilities		
Unearned premiums	\$10,686.5	\$ 8,903.5
Loss and loss adjustment expense reserves	15,400.8	13,086.9
Net deferred income taxes	0	135.0
Accounts payable, accrued expenses, and other liabilities ¹	5,046.5	3,481.0
Debt ²	4,404.9	3,306.3
Total liabilities	35,538.7	28,912.7
Redeemable noncontrolling interest (NCI)³	214.5	503.7
Shareholders' Equity		
Serial Preferred Shares (authorized 20.0)		
Serial Preferred Shares, Series B, no par value (cumulative, liquidation preference \$1,000 per share) (authorized, issued, and outstanding 0.5 and 0)	493.9	0
Common shares, \$1.00 par value (authorized 900.0; issued 797.5, including treasury shares of 214.3 and 215.8)	583.2	581.7
Paid-in capital	1,479.0	1,389.2
Retained earnings	8,386.6	6,031.7
Accumulated other comprehensive income:		
Net unrealized gains (losses) on securities	(105.6)	1,295.0
Net unrealized losses on forecasted transactions	(17.2)	(14.8)
Accumulated other comprehensive (income) loss attributable to NCI	1.9	2.0
Total accumulated other comprehensive income attributable to Progressive	(120.9)	1,282.2
Total shareholders' equity	10,821.8	9,284.8
Total liabilities, redeemable NCI, and shareholders' equity	\$46,575.0	\$38,701.2

¹ See Note 12 – *Litigation*, Note 13 – *Commitments and Contingencies*, and Note 14 – *Dividends* for further discussion.

² Consists of long-term debt. See Note 4 – *Debt* for further discussion.

³ See Note 15 – *Redeemable Noncontrolling Interest* for further discussion.

See notes to consolidated financial statements.

The Progressive Corporation and Subsidiaries
Consolidated Statements of Changes in Shareholders' Equity
For the years ended December 31,

(millions – except per share amounts)	2018	2017	2016
Serial Preferred Shares, No Par Value			
Balance, Beginning of year	\$ 0	\$ 0	\$ 0
Issuance of Serial Preferred Shares, Series B	493.9	0	0
Balance, End of year	493.9	0	0
Common Shares, \$1.00 Par Value			
Balance, Beginning of year	581.7	579.9	583.6
Treasury shares purchased	(1.4)	(1.5)	(6.1)
Net restricted equity awards issued/vested	2.9	3.3	2.4
Balance, End of year	583.2	581.7	579.9
Paid-In Capital			
Balance, Beginning of year	1,389.2	1,303.4	1,218.8
Treasury shares purchased	(3.3)	(3.4)	(13.4)
Net restricted equity awards issued/vested	(2.9)	(3.3)	(2.4)
Amortization of equity-based compensation	76.2	92.9	80.9
Reinvested dividends on restricted stock units	12.2	8.0	6.1
Adjustment to carrying amount of redeemable noncontrolling interest	7.6	(8.4)	4.2
Tax benefit from vesting of equity-based compensation	0	0	9.2
Balance, End of year	1,479.0	1,389.2	1,303.4
Retained Earnings			
Balance, Beginning of year	6,031.7	5,140.4	4,686.6
Net income attributable to Progressive	2,615.3	1,592.2	1,031.0
Treasury shares purchased	(74.3)	(57.6)	(173.0)
Cash dividends declared on common shares (\$2.5140, \$1.1247, and \$0.6808 per share)	(1,466.0)	(654.2)	(394.7)
Cash dividends declared on Serial Preferred Shares, Series B (\$27.024 per share, \$0, and \$0)	(13.5)	0	0
Reinvested dividends on restricted stock units	(12.2)	(8.0)	(6.1)
Cumulative effect of change in accounting principle ¹	1,300.2	0	0
Reclassification of disproportionate tax effects ¹	4.3	0	0
Other, net	1.1	18.9	(3.4)
Balance, End of year	8,386.6	6,031.7	5,140.4
Accumulated Other Comprehensive Income (Loss) Attributable to Progressive			
Balance, Beginning of year	1,282.2	933.4	800.4
Attributable to noncontrolling interest	(0.1)	(2.3)	3.2
Other comprehensive income (loss)	(98.5)	351.1	129.8
Cumulative effect of change in accounting principle ¹	(1,300.2)	0	0
Reclassification of disproportionate tax effects ¹	(4.3)	0	0
Balance, End of year	(120.9)	1,282.2	933.4
Total Shareholders' Equity	\$10,821.8	\$9,284.8	\$7,957.1

¹ See Note 1 – Accounting and Reporting Policies for further discussion.

There are 5.0 million Voting Preference Shares authorized; no such shares have been issued.

See notes to consolidated financial statements.

The Progressive Corporation and Subsidiaries
Consolidated Statements of Cash Flows
For the years ended December 31,

(millions)	2018	2017	2016
Cash Flows From Operating Activities			
Net income	\$ 2,621.0	\$ 1,598.1	\$ 1,057.2
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	190.4	169.9	137.4
Amortization of intangible assets	72.0	66.2	62.1
Net amortization of fixed-income securities	34.3	86.2	77.2
Amortization of equity-based compensation	77.2	95.4	85.2
Net realized (gains) losses on securities	405.5	(49.6)	(51.1)
Net (gains) losses on disposition of property and equipment	32.1	7.2	6.6
Other (gains) losses	0	1.0	(1.6)
Net loss on exchange transaction	0	0	4.5
Changes in:			
Premiums receivable	(1,074.6)	(913.2)	(518.5)
Reinsurance recoverables	(422.7)	(388.6)	(388.2)
Prepaid reinsurance premiums	(106.4)	(32.8)	48.8
Deferred acquisition costs	(171.1)	(129.3)	(103.8)
Income taxes	(158.7)	(172.6)	(55.7)
Unearned premiums	1,783.0	1,434.9	830.7
Loss and loss adjustment expense reserves	2,313.9	1,718.8	1,323.2
Accounts payable, accrued expenses, and other liabilities	746.6	400.0	308.9
Other, net	(57.7)	(134.8)	(90.2)
Net cash provided by operating activities	6,284.8	3,756.8	2,732.7
Cash Flows From Investing Activities			
Purchases:			
Fixed maturities	(21,153.0)	(14,587.8)	(11,610.6)
Equity securities	(538.8)	(255.6)	(434.2)
Sales:			
Fixed maturities	7,835.6	5,382.5	5,694.9
Equity securities	823.5	252.9	484.6
Maturities, paydowns, calls, and other:			
Fixed maturities	5,099.8	5,215.8	4,907.4
Equity securities	26.6	50.0	0
Net sales (purchases) of short-term investments	1,116.3	727.6	(1,357.2)
Net unsettled security transactions	11.7	(33.6)	50.9
Purchases of property and equipment	(266.0)	(155.7)	(215.0)
Sales of property and equipment	9.4	15.3	6.2
Acquisition of additional shares of ARX Holding Corp.	(296.9)	0	0
Acquisition of an insurance company, net of cash acquired	0	(18.1)	0
Net cash disposed in exchange transaction	0	0	(7.7)
Net cash used in investing activities	(7,331.8)	(3,406.7)	(2,480.7)
Cash Flows From Financing Activities			
Net proceeds from debt issuance	1,134.0	841.1	495.6
Net proceeds from issuance of Serial Preferred Shares, Series B	493.9	0	0
Payments of debt	(37.1)	(49.0)	(25.5)
Dividends paid to common shareholders	(654.9)	(395.4)	(519.0)
Dividends paid to preferred shareholders	(13.5)	0	0
Proceeds from exercise of equity options	3.3	0.5	0
Acquisition of treasury shares for restricted stock tax liabilities	(78.6)	(57.6)	(25.1)
Acquisition of treasury shares acquired in open market	(0.4)	(4.9)	(167.4)
Redemption/reacquisition of subordinated debt	0	(635.6)	(18.2)
Tax benefit from vesting of equity-based compensation	0	0	9.2
Net cash provided by (used in) financing activities	846.7	(300.9)	(250.4)
Effect of exchange rate changes on cash	0	(0.3)	0.4
Increase (decrease) in cash, cash equivalents, and restricted cash	(200.3)	48.9	2.0
Cash, cash equivalents, and restricted cash – Beginning of year	275.3	226.4	224.4
Cash, cash equivalents, and restricted cash – End of year	\$ 75.0	\$ 275.3	\$ 226.4

See notes to consolidated financial statements.

1. REPORTING AND ACCOUNTING POLICIES

Nature of Operations The Progressive insurance organization began business in 1937. The financial results of The Progressive Corporation include its subsidiaries and affiliates (references to “subsidiaries” in these notes include affiliates as well). Our insurance subsidiaries (collectively the Progressive Group of Insurance Companies) provide personal and commercial auto insurance, residential property insurance, and other specialty property-casualty insurance and related services. Our Personal Lines segment writes insurance for personal autos and recreational vehicles, which we refer to as our special lines products, through both an independent insurance agency channel and a direct channel. Our Commercial Lines segment writes primary liability, physical damage, and other auto-related insurance for automobiles and trucks owned and/or operated predominantly by small businesses through both the independent agency and direct channels. Our Property segment writes residential property insurance for homeowners, other property owners, and renters, through both an independent insurance agency channel and a direct channel. We operate our businesses throughout the United States.

Basis of Consolidation and Reporting The accompanying consolidated financial statements include the accounts of The Progressive Corporation and ARX Holding Corp. (ARX), and their respective wholly owned insurance and non-insurance subsidiaries and affiliates, in which Progressive or ARX has a controlling financial interest. All intercompany accounts and transactions are eliminated in consolidation.

The Progressive Corporation owned 86.8% of the outstanding capital stock of ARX at December 31, 2018, 69.0% at December 31, 2017, and 69.2% at December 31, 2016. The increase in Progressive’s ownership of ARX is primarily due to the minority ARX shareholders exercising their rights to “put” a portion of their shares, including exercised stock options, to Progressive pursuant to the ARX stockholders’ agreement. See *Note 15 – Redeemable Noncontrolling Interest* for further discussion.

Estimates We are required to make estimates and assumptions when preparing our financial statements and accompanying notes in conformity with accounting principles generally accepted in the United States of America (GAAP). As estimates develop into fact, results may, and will likely, differ from those estimates.

Investments Our fixed-maturity securities and short-term investments are accounted for on an available-for-sale basis. Fixed-maturity securities include debt securities and redeemable preferred stocks, which may have fixed or variable principal payment schedules, may be held for indefinite periods of time, and may be used as a part of our asset/liability strategy or sold in response to changes in interest rates, anticipated prepayments, risk/reward characteristics, liquidity needs, or other economic factors. These securities are carried at fair value with the corresponding unrealized gains (losses), net of deferred income taxes, reported in accumulated other comprehensive income. Fair values are obtained from recognized pricing services or are quoted by market makers and dealers, with limited exceptions discussed in *Note 3 – Fair Value*.

Short-term investments may include Eurodollar deposits, commercial paper, repurchase transactions, and other securities expected to mature within one year. From time to time, we may also invest in municipal bonds that have maturity dates that are longer than one year but have either liquidity facilities or mandatory put features within one year.

Equity securities include common stocks, nonredeemable preferred stocks, and other risk investments. These securities are carried at fair value, and as of January 1, 2018, with the changes in fair value reported as a component of net holding period gains (losses) on securities reported in net income. See *New Accounting Standards – Adopted* below for further discussion.

Trading securities are securities bought principally for the purpose of sale in the near term. We do not hold any trading securities. To the extent we have trading securities, changes in fair value would be recognized in income in the current period. Derivative instruments, which may be used for trading purposes or classified as trading derivatives due to the characteristics of the transaction, are discussed below.

Derivative instruments may include futures, options, forward positions, foreign currency forwards, interest rate swap agreements, and credit default swaps and may be used in the portfolio for general investment purposes or to hedge the exposure to:

- Changes in fair value of an asset or liability (fair value hedge),
- Foreign currency of an investment in a foreign operation (foreign currency hedge), or
- Variable cash flows of a forecasted transaction (cash flow hedge).

We did not have any derivatives outstanding at December 31, 2018 and 2017. To the extent we have derivatives held for general investment purposes, these derivative instruments are recognized as either assets or liabilities and measured at fair value, with changes in fair value recognized in income as a component of net holding period gains (losses) on securities during the period of change.

Derivatives designated as hedges are required to be evaluated on established criteria to determine the effectiveness of their correlation to, and ability to reduce the designated risk of, specific securities or transactions. Effectiveness is required to be reassessed regularly. Hedges that are deemed to be effective would be accounted for as follows:

- *Fair value hedge*: changes in fair value of the hedge, as well as the hedged item, would be recognized in income in the period of change while the hedge is in effect.
- *Foreign currency hedge*: changes in fair value of the hedge, as well as the hedged item, would be reflected as a change in translation adjustment as part of accumulated other comprehensive income. Gains and losses on the foreign currency hedge would offset the foreign exchange gains and losses on the foreign investment as they are recognized into income.
- *Cash flow hedge*: changes in fair value of the hedge would be reported as a component of accumulated other comprehensive income and subsequently amortized into earnings over the life of the hedged transaction.

If a hedge is deemed to become ineffective or discontinued, the following accounting treatment would be applied:

- *Fair value hedge*: the derivative instrument would continue to be adjusted through income, while the adjustment in the change in value of the hedged item would be reflected as a change in unrealized gains (losses) as part of accumulated other comprehensive income.
- *Foreign currency hedge*: changes in the value of the hedged item would continue to be reflected as a change in translation adjustment as part of accumulated other comprehensive income, but the derivative instrument would be adjusted through income for the current period.
- *Cash flow hedge*: changes in fair value of the derivative instrument would be reported in income for the current period.

For derivatives settled through a clearinghouse, we will need cash to post initial margin and are subject to increases in margin beyond changes in fair value. For bi-lateral derivative positions, net cash requirements are limited to changes in fair values, which may vary as a result of changes in interest rates, currency exchange rates, and other factors. Exposure to credit risk is limited to the carrying value; collateral may be required to limit credit risk. We have elected not to offset fair value amounts that arise from derivative positions with the same counterparty under a master netting arrangement.

Investment securities are exposed to various risks such as interest rate, market, credit, and liquidity risk. Fair values of securities fluctuate based on the nature and magnitude of changing market conditions; significant changes in market conditions could materially affect the portfolio's value in the near term. We regularly monitor our portfolio for price changes, which might indicate potential impairments, and perform detailed reviews of fixed-maturity securities with unrealized losses. In such cases, changes in fair value are evaluated to determine the extent to which such changes are attributable to: (i) fundamental factors specific to the issuer, such as financial condition, business prospects, or other factors, (ii) market-related factors, such as interest rates, or (iii) credit-related losses, where the present value of cash flows expected to be collected are lower than the amortized cost basis of the security.

We analyze our investment in debt securities that are in a loss position to determine if we intend to sell, or if it is more likely than not that we will be required to sell, the security prior to recovery and, if so, we write down the security to its current fair value, with the entire amount of the write-down recorded to earnings. To the extent that it is more likely than not that we will hold the debt security until recovery (which could be maturity), we determine if any of the decline in value is due to a credit loss (i.e., where the present value of future cash flows expected to be collected is lower than the amortized cost basis of the

security) and, if so, we recognize that portion of the impairment as a component of net realized gains (losses) in the comprehensive income statement, with the difference (i.e., non-credit related impairment) recognized as part of our net unrealized gains (losses) in accumulated other comprehensive income.

Investment income consists of interest, dividends, and accretion net of amortization. Interest is recognized on an accrual basis using the effective yield method, except for asset backed securities, discussed below. Depending on the nature of the equity instruments, dividends are recorded at either the ex-dividend date or on an accrual basis.

Asset-backed securities, which are included in our fixed-maturity portfolio, are generally accounted for under the retrospective method. The retrospective method recalculates yield assumptions (based on changes in interest rates or cash flow expectations) historically to the inception of the investment holding period, and applies the required adjustment, if any, to the cost basis, with the offset recorded to investment income. The prospective method is used primarily for interest-only securities, non-investment-grade asset-backed securities, and certain asset-backed securities with sub-prime loan exposure or where there is a greater risk of non-performance and where it is possible the initial investment may not be substantially recovered. The prospective method requires a calculation of expected future repayments and resets the yield to allow for future period adjustments; no current period impact to investment income or the security's cost is made based on the cash flow update. Prepayment assumptions are updated quarterly.

Realized gains (losses) on securities are computed based on the first-in first-out method and include write-downs on available-for-sale securities considered to have other-than-temporary declines in fair value (excluding non-credit related impairments), as well as holding period valuation changes on equity securities, hybrid instruments (e.g., securities with embedded options, where the option is a feature of the overall change in the value of the instrument), derivatives, and trading securities.

Insurance Premiums and Receivables Insurance premiums written are earned into income on a pro rata basis over the period of risk, based on a daily earnings convention. Accordingly, unearned premiums represent the portion of premiums written that are applicable to the unexpired risk. We provide insurance and related services to individuals and commercial accounts and offer a variety of payment plans. Generally, premiums are collected prior to providing risk coverage, minimizing our exposure to credit risk.

For our vehicle businesses, we perform a policy level evaluation to determine the extent to which the premiums receivable balance exceeds the unearned premiums balance. We then age this exposure to establish an allowance for doubtful accounts based on prior experience.

For our Property business, we do not establish an allowance for doubtful accounts since the risk of uncollectibility is relatively low. If premiums are unpaid by the policy due date, we provide advance notice of cancellation in accordance with each state's requirements and, if the premiums remain unpaid after receipt of notice, cancel the policy and write off any remaining balance.

Deferred Acquisition Costs Deferred acquisition costs include commissions, premium taxes, and other variable underwriting and direct sales costs incurred in connection with the successful acquisition or renewal of insurance contracts. These acquisition costs, net of ceding allowances, are deferred and amortized over the policy period in which the related premiums are earned. We consider anticipated investment income in determining the recoverability of these costs. Management believes these costs will be fully recoverable in the near term.

We do not defer any advertising costs. Total advertising costs, which are expensed as incurred, for the years ended December 31, were:

(millions)	Advertising Costs
2018	\$1,422.4
2017	1,005.4
2016	756.2

Loss and Loss Adjustment Expense Reserves Loss reserves represent the estimated liability on claims reported to us, plus reserves for losses incurred but not recorded (IBNR). These estimates are reported net of amounts estimated to be recoverable from salvage and subrogation. Loss adjustment expense reserves represent the estimated expenses required to settle these claims and losses. The methods of making estimates and establishing these reserves are reviewed regularly,

and resulting adjustments are reflected in income in the current period. Such loss and loss adjustment expense reserves are susceptible to change in the near term.

Reinsurance Our reinsurance transactions include Regulated plans and Non-Regulated plans. The Regulated plans in which we participate are governed by insurance regulations and include state-provided reinsurance facilities (e.g., Michigan Catastrophic Claims Association, Florida Hurricane Catastrophe Fund, North Carolina Reinsurance Facility), as well as state-mandated involuntary plans for commercial vehicles (Commercial Automobile Insurance Procedures/Plans – CAIP) and federally regulated plans for flood (National Flood Insurance Program – NFIP); we act as a servicing agent for CAIP and as a participant in the “Write Your Own” program for the NFIP. The Non-Regulated plans are voluntary contractual arrangements primarily related to the transportation network company business written by our Commercial Lines segment and our Property business. Prepaid reinsurance premiums are earned on a pro rata basis over the period of risk, based on a daily earnings convention, which is consistent with premiums earned. See *Note 7 – Reinsurance* for further discussion.

Income Taxes The income tax provision is calculated under the balance sheet approach. Deferred tax assets and liabilities are recorded based on the difference between the financial statement and tax bases of assets and liabilities at the enacted tax rates. The principal items giving rise to such differences are investment securities (e.g., net unrealized gains (losses), net holding period gains (losses) on securities, write-downs on securities determined to be other-than-temporarily impaired), loss and loss adjustment expense reserves, unearned premiums reserves, deferred acquisition costs, property and equipment, intangible assets, and non-deductible accruals. We review our deferred tax assets regularly for recoverability. The effects of any changes in the tax rate are recorded to our provision for income taxes, including any changes on items initially recognized in accumulated other comprehensive income. See *Note 5 – Income Taxes* for further discussion.

Property and Equipment Property and equipment are recorded at cost, less accumulated depreciation, and include capitalized software developed or acquired for internal use. Depreciation is recognized over the estimated useful lives of the assets using accelerated methods for computer equipment and laptops and the straight-line method for all other fixed assets. We evaluate impairment whenever events or circumstances warrant such a review and write-off the impaired assets if appropriate.

The cost and useful lives for property and equipment at December 31, were:

(\$ in millions)	2018	2017	Useful Lives
Buildings, improvements, and integrated components	\$ 928.8	\$ 962.0	7-40 years
Capitalized software	327.0	273.1	3-10 years
Software licenses (internal use)	259.1	197.0	1-5 years
Land	177.0	203.4	NA
Computer equipment and laptops	123.2	92.8	3 years
All other property and equipment	349.8	331.9	3-15 years
Total cost	2,164.9	2,060.2	
Accumulated depreciation	(1,033.2)	(940.6)	
Balance at end of year	\$ 1,131.7	\$ 1,119.6	

NA = Not applicable

At December 31, 2018 and 2017, included in other assets in the consolidated balance sheets is \$39.3 million and \$5.3 million, respectively, of “held for sale” property, which represents the fair value of this property less the estimated costs to sell. The increase primarily reflects our decision to transition away from the use of service centers as part of our claims operating model.

Total capitalized interest, which primarily relates to capitalized software projects, for the years ended December 31, was:

(millions)	Capitalized Interest
2018	\$1.8
2017	2.8
2016	2.9

Goodwill and Intangible Assets Goodwill is the excess of the purchase price over the estimated fair value of the assets and liabilities acquired and represents the future economic benefits arising from other assets acquired that could not be

individually identified and separately recognized. Substantially all of the goodwill recorded as of December 31, 2018 and 2017, relates to the April 1, 2015, acquisition of a controlling interest in ARX.

Intangible assets primarily arose through the acquisition of ARX and mainly represent the future premiums that will be recognized from the policies and agency relationships that existed at the acquisition date. The majority of the intangible assets have finite lives, which, at December 31, 2018, had a remaining life range from 1 to 10 years. See *Note 16 – Goodwill and Intangible Assets* for further discussion.

We evaluate our goodwill for impairment at least annually using a qualitative approach. If events or changes in circumstances indicate that the carrying value of goodwill or intangible assets may not be recoverable, we will evaluate such items for impairment using a quantitative approach.

Guaranty Fund Assessments We are subject to state guaranty fund assessments, which provide for the payment of covered claims or other insurance obligations of insurance companies deemed insolvent. These assessments are accrued after a formal determination of insolvency has occurred, and we have written the premiums on which the assessments will be based. Assessments that are available for recoupment from policyholders are capitalized when incurred; all other assessments are expensed.

Fees and Other Revenues Fees and other revenues primarily represent fees collected from policyholders relating to installment charges in accordance with our bill plans, as well as late payment and insufficient funds fees and revenue from ceding commissions. Fees and other revenues are generally earned when invoiced, except for excess ceding commissions, which are earned over the policy period.

Service Revenues and Expenses Our service businesses provide insurance-related services. Service revenues and expenses from our commission-based businesses are recorded in the period in which they are earned or incurred. Service revenues generated from processing business for involuntary CAIP plans are earned on a pro rata basis over the term of the related policies. Service expenses related to these CAIP plans are expensed as incurred.

Equity-Based Compensation We issue time-based and performance-based restricted stock unit awards to key members of management as our form of equity compensation, and time-based restricted stock awards to non-employee directors. Collectively, we refer to these awards as “restricted equity awards.” Compensation expense for time-based restricted equity awards with installment vesting is recognized over each respective vesting period. For performance-based restricted equity awards, compensation expense is recognized over the respective estimated vesting periods. Dividend equivalent units are credited to outstanding restricted stock unit awards, both time-based and performance-based, at the time a dividend is paid to shareholders and paid upon vesting of the underlying award.

We record an estimate for expected forfeitures of restricted equity awards based on our historical forfeiture rates. In addition, we shorten the vesting periods of certain time-based restricted equity awards based on the “qualified retirement” provisions in our equity compensation plans, under which (among other provisions) if the participant satisfies certain age and years-of-service requirements, the vesting and distribution of 50% of outstanding time-based restricted equity awards accelerates upon reaching eligibility for a qualified retirement and shortly after the grant date for each subsequent award.

ARX also has nonqualified and incentive stock options outstanding that were issued prior to April 2015 as a form of equity compensation to certain of the officers and employees of ARX and its subsidiaries. These outstanding stock options are subject to the put/call features contained in the ARX stockholders’ agreement, pursuant to which The Progressive Corporation has the right, and can be required, to purchase all the shares underlying these awards in 2021. The vested stock options, and the shares issuable upon exercise of the stock options, are also subject to repurchase by ARX if the holder’s employment terminates. See *Note 15 – Redeemable Noncontrolling Interest* for further discussion. These stock options, which are treated for accounting purposes as liability awards, are expensed over the respective vesting periods based on the Black-Scholes value determined at period end.

The total compensation expense recognized for equity-based compensation, including both equity and liability awards, for the years ended December 31, was:

(millions)	2018	2017	2016
Pretax expense	\$77.2	\$95.4	\$85.2
Tax benefit ¹	16.2	33.4	29.8

¹Calculated using the corporate federal tax rate of 21% for 2018 and 35% for 2017 and 2016.

Earnings Per Common Share Net income attributable to Progressive is reduced by cumulative preferred share dividends to determine net income available to common shareholders, and is used in our calculation of the per common share amounts. Basic earnings per common share is computed using the weighted average number of common shares outstanding during the reporting period, excluding unvested time-based and performance-based restricted equity awards that are subject to forfeiture. Diluted earnings per common share includes common stock equivalents assumed outstanding during the period. Our common stock equivalents include the incremental shares assumed to be issued for:

- earned but unvested time-based restricted equity awards, and
- performance-based restricted equity awards that satisfied certain contingency conditions for unvested common stock equivalents during the period; it is highly likely that these awards will continue to satisfy the conditions until the date of vesting.

Supplemental Cash Flow Information Cash and cash equivalents include bank demand deposits and daily overnight reverse repurchase commitments of funds held in bank demand deposit accounts by ARX's subsidiaries. The amount of reverse repurchase commitments held by ARX's subsidiaries at December 31, 2018, 2017, and 2016, were \$117.3 million, \$247.2 million, and \$150.0 million, respectively. Restricted cash on our consolidated balance sheets represents cash that is restricted to pay flood claims under the National Flood Insurance Program's "Write Your Own" program, for which subsidiaries of ARX are administrators. Non-cash activity includes declared but unpaid dividends.

For the years ended December 31, we paid the following:

(millions)	2018	2017	2016
Income taxes	\$702.6	\$715.6	\$459.4
Interest	154.0	146.3	139.2

New Accounting Standards

Issued

In August 2018, the Financial Accounting Standards Board (FASB) issued an Accounting Standards Update (ASU), which provides additional guidance on the requirements for capitalizing and amortizing implementation costs incurred in a cloud computing arrangement that does not include a software license. This ASU will be effective for fiscal years (including interim periods within those fiscal years) beginning after December 15, 2019 (2020 for calendar-year companies). We do not expect this standard to have a material impact on our financial condition, cash flows, or results of operations.

In August 2018, the FASB also issued an ASU, which amends the disclosure requirements for fair value measurements. The ASU requires companies to disclose the changes in unrealized gains and losses for the period included in other comprehensive income for recurring Level 3 fair value measurements held at the end of the reporting period and the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements. The ASU also removes current disclosure requirements for the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy, the policy for timing of transfers between levels, and the valuation processes for Level 3 fair value measurements. The ASU is effective for fiscal years beginning after December 15, 2019, and should be applied prospectively for the additions to the disclosure requirements and applied retrospectively to all periods presented for all other amendments. As permitted by the ASU, we elected to partially early adopt the removal of current disclosure requirements and will adopt the new disclosure requirements as of the effective date. We do not expect this standard to have an impact on our financial condition, cash flows, or results of operations.

In July 2018, the FASB issued an ASU, which provides targeted improvements to the new lease accounting guidance issued by the FASB in February 2016. The ASU, which eliminates the off-balance-sheet accounting for leases, will require lessees to report their operating leases as both an asset and liability on the statement of financial position and to disclose key information about leasing arrangements in the financial statement footnotes. Under the ASU, there will be no change to the recognition of lease expense in our results of operations. The ASU will be effective for fiscal years (including interim periods within those fiscal years) beginning after December 15, 2018 (2019 for calendar-year companies). Under the ASU, companies will have the option to apply the new lease requirements either as of the effective date (i.e., January 1, 2019), with comparative information presented in accordance with the previous standard, or on a modified retrospective basis, which would restate all financial statement information as of the beginning of the earliest period presented. We adopted this standard as of January 1, 2019, and recorded an increase to assets and liabilities of about \$215 million, which reflects the present value of future operating lease payments; comparative information is presented in accordance with the previous standard. The ASU had no impact on our results of operations or cash flows.

In March 2017, the FASB issued an ASU related to premium amortization on purchased callable debt securities. The intent of the standard is to shorten the amortization period for certain purchased callable debt securities held at a premium. Under the ASU, the premium is required to be amortized to the earliest call date. The ASU more closely aligns interest income recorded on bonds held at a premium with the economics of the underlying instrument. The ASU, which is required to be applied on a modified retrospective basis, is effective for fiscal years beginning after December 15, 2018 (2019 for calendar-year companies), and interim periods within those fiscal years. Since we have historically used a yield-to-worst scenario for our securities that were purchased at a premium, and the first call on a premium security most often produces the lowest and most conservative yield, we do not expect this standard to have a significant impact on our financial condition, cash flows, or results of operations.

In January 2017, the FASB issued an ASU, which eliminates the requirement to determine the implied fair value of goodwill in measuring an impairment loss. Upon adoption, the measurement of a goodwill impairment will represent the excess of the reporting unit's carrying value over fair value, limited to the carrying value of goodwill. This ASU is effective for goodwill impairment tests in fiscal years beginning after December 15, 2019 (2020 for calendar-year companies), with early adoption permitted. We do not expect this standard to have a material impact on our financial condition or results of operations.

In June 2016, the FASB issued an ASU intended to improve the timing, and enhance the accounting and disclosure, of credit losses on financial assets. Additionally, this update will modify the existing accounting guidance related to the impairment evaluation for available-for-sale debt securities and will result in the creation of an allowance for credit losses as a contra asset account. The ASU will require cumulative-effect changes to retained earnings in the period of adoption, if any occur, and will also require prospective changes on previously recorded impairments. This ASU is effective for fiscal years (including interim periods within those fiscal years) beginning after December 15, 2019 (2020 for calendar-year companies), with early adoption permissible (including interim periods within that fiscal year) beginning after December 15, 2018 (2019 for calendar-year companies). While the ASU creates additional accounting complexities related to the recognition of the impairment losses, and subsequent recoveries, through an allowance for credit losses account, we do not expect the ASU to have a material impact on our current method of evaluating investment securities or reinsurance recoverables for credit losses or the timing or recognition of the amounts of the impairment losses.

Adopted

On January 1, 2018, we adopted the ASU intended to improve the recognition and measurement of financial instruments. Under this update, the changes in fair value of equity securities are recognized as a component of net income. Upon adoption, we recorded a cumulative-effect adjustment of \$1.3 billion, which is net of taxes. The cumulative-effect adjustment represents the amount of after-tax net unrealized gains on equity securities that was recorded as part of accumulated other comprehensive income at December 31, 2017. The adoption of this ASU had no impact on comprehensive income. Consistent with our historical presentation, cash flows on equity securities will be reflected as investing activities in the Consolidated Statements of Cash Flows.

In the first quarter 2018, we adopted the ASU related to the reclassification of certain tax effects from accumulated other comprehensive income. This update provided companies with the option to reclassify disproportionate tax effects in accumulated other comprehensive income caused by the legislation commonly known as the Tax Cuts and Jobs Act of 2017 to retained earnings. We opted to make the reclassification, which resulted in a decrease to accumulated other comprehensive income and an offsetting increase to retained earnings of \$4.3 million. This reclass was solely due to the effect of the change in the U.S. federal tax rate on our available-for-sale fixed-maturity securities and our hedges on forecasted transactions. There were no disproportionate tax effects related to our equity securities subsequent to adopting the ASU related to classification and measurement discussed above.

2. INVESTMENTS

The following tables present the composition of our investment portfolio by major security type, consistent with our classification of how we manage, monitor, and measure the portfolio. Our securities are reported in our Consolidated Balance Sheets at fair value. The changes in fair value for our fixed-maturity securities (other than hybrid securities) are reported as a component of accumulated other comprehensive income, net of deferred income taxes, in our Consolidated Balance Sheets.

The net holding period gains (losses) reported below represent the inception-to-date changes in fair value. The changes in the net holding period gains (losses) between periods for the hybrid securities and, beginning in 2018, equity securities are recorded as a component of net realized gains (losses) on securities in our Consolidated Statements of Comprehensive Income. Prior to 2018, the change in fair value of our equity securities was part of accumulated other comprehensive income (see *Note 1 – Reporting and Accounting Policies* for further discussion). For comparative purposes, the change in fair value of the hybrid securities that was recognized in 2017 and 2016 was reclassified out of “net realized gains (losses) on security sales” and into “net holding period gains (losses) on securities” to conform to the current year presentation.

(\$ in millions)	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Net Holding Period Gains (Losses)	Fair Value	% of Total Fair Value
December 31, 2018						
Available-for-sale securities:						
Fixed maturities:						
U.S. government obligations	\$ 9,897.4	\$ 71.2	\$ (52.1)	\$ 0	\$ 9,916.5	29.5%
State and local government obligations	1,654.6	7.3	(12.8)	0	1,649.1	4.9
Corporate debt securities	8,808.5	13.6	(125.3)	(2.5)	8,694.3	25.9
Residential mortgage-backed securities	733.5	6.0	(5.1)	0	734.4	2.2
Commercial mortgage-backed securities	3,332.8	7.8	(39.0)	0	3,301.6	9.8
Other asset-backed securities	3,585.4	3.6	(11.8)	0.1	3,577.3	10.7
Redeemable preferred stocks	243.7	5.9	(3.5)	(7.8)	238.3	0.7
Total fixed maturities	28,255.9	115.4	(249.6)	(10.2)	28,111.5	83.7
Short-term investments	1,795.9	0	0	0	1,795.9	5.4
Total available-for-sale securities	30,051.8	115.4	(249.6)	(10.2)	29,907.4	89.1
Equity securities:						
Nonredeemable preferred stocks	1,002.6	0	0	31.3	1,033.9	3.1
Common equities	1,148.9	0	0	1,477.2	2,626.1	7.8
Total equity securities	2,151.5	0	0	1,508.5	3,660.0	10.9
Total portfolio ^{1,2}	\$32,203.3	\$115.4	\$(249.6)	\$1,498.3	\$33,567.4	100.0%

(\$ in millions)	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Net Holding Period Gains (Losses)	Fair Value	% of Total Fair Value
December 31, 2017						
Fixed maturities:						
U.S. government obligations	\$ 6,688.8	\$ 1.1	\$(44.0)	\$ 0	\$ 6,645.9	24.4%
State and local government obligations	2,285.6	20.7	(9.3)	0.1	2,297.1	8.4
Corporate debt securities	4,997.2	14.8	(14.4)	0.1	4,997.7	18.3
Residential mortgage-backed securities	828.8	11.3	(3.4)	0	836.7	3.1
Commercial mortgage-backed securities	2,760.1	11.8	(13.3)	0	2,758.6	10.1
Other asset-backed securities	2,454.5	4.5	(4.5)	0.2	2,454.7	9.0
Redeemable preferred stocks	194.9	17.8	(1.5)	(0.2)	211.0	0.8
Total fixed maturities	20,209.9	82.0	(90.4)	0.2	20,201.7	74.1
Short-term investments	2,869.4	0	0	0	2,869.4	10.5
Total fixed maturities and short-term	23,079.3	82.0	(90.4)	0.2	23,071.1	84.6
Equity securities:						
Nonredeemable preferred stocks	698.6	114.0	(8.8)	0	803.8	2.9
Common equities	1,499.0	1,901.0	(0.2)	0	3,399.8	12.5
Total equity securities	2,197.6	2,015.0	(9.0)	0	4,203.6	15.4
Total available-for-sale portfolio ^{1,2}	\$25,276.9	\$2,097.0	\$(99.4)	\$ 0.2	\$27,274.7	100.0%

¹Our portfolio reflects the effect of unsettled security transactions; at December 31, 2018, \$5.9 million was included in “other liabilities,” compared to \$5.8 million in “other assets” at December 31, 2017.

²The total fair value of the portfolio at December 31, 2018 and 2017 included \$2.9 billion and \$1.6 billion, respectively, of securities held in a consolidated, non-insurance subsidiary of the holding company, net of any unsettled security transactions.

At December 31, 2018, bonds and certificates of deposit in the principal amount of \$250.8 million were on deposit to meet state insurance regulatory and/or rating agency requirements. We did not hold any securities of any one issuer, excluding U.S. government obligations, with an aggregate cost or fair value exceeding 10% of total shareholders' equity at December 31, 2018 or 2017. At December 31, 2018, we did not hold any debt securities that were non-income producing during the preceding 12 months.

Short-Term Investments Our short-term investments may include commercial paper and other investments that are expected to mature or are redeemable within one year.

We did not have any open repurchase or reverse repurchase transactions in our short-term investment portfolio at December 31, 2018 or 2017. To the extent we enter into repurchase or reverse repurchase transactions, and consistent with past practice, we would elect not to offset these transactions and would report them on a gross basis on our balance sheets despite the option to elect to offset these transactions as long as they were with the same counterparty and subject to an enforceable master netting arrangement.

Hybrid Securities Included in our fixed maturities are hybrid securities, which are reported at fair value at December 31:

(millions)	2018	2017
Fixed Maturities:		
State and local government obligations	\$ 3.6	\$ 6.1
Corporate debt securities	158.9	99.8
Other asset-backed securities	4.5	6.7
Redeemable preferred stocks	77.7	30.3
Total hybrid securities	\$244.7	\$142.9

Certain securities in our portfolio are accounted for as hybrid securities because they contain embedded derivatives that are not deemed to be clearly and closely related to the host investments. Since the embedded derivatives (e.g., change-in-control put option, debt-to-equity conversion, or any other feature unrelated to the credit quality or risk of default of the issuer that could impact the amount or timing of our expected future cash flows) do not have observable intrinsic values, we have elected to record the changes in fair value of these securities through income as realized gains or losses.

Fixed Maturities The composition of fixed maturities by maturity at December 31, 2018, was:

(millions)	Cost	Fair Value
Less than one year	\$ 4,880.1	\$ 4,867.0
One to five years	17,719.4	17,652.0
Five to ten years	5,581.3	5,517.5
Ten years or greater	75.1	75.0
Total	\$28,255.9	\$28,111.5

Asset-backed securities are classified in the maturity distribution table based upon their projected cash flows. All other securities that do not have a single maturity date are reported based upon expected average maturity. Contractual maturities may differ from expected maturities because the issuers of the securities may have the right to call or prepay obligations.

Gross Unrealized Losses As of December 31, 2018, we had \$249.6 million of gross unrealized losses in our fixed-maturity securities. A review of these securities indicated that the issuers were current with respect to their interest obligations and that there was no evidence of deterioration of the current cash flow projections that would indicate we would not receive the remaining principal at maturity.

The following tables show the composition of gross unrealized losses by major security type and by the length of time that individual securities have been in a continuous unrealized loss position:

(\$ in millions)	Total No. of Sec.	Total Fair Value	Gross Unrealized Losses	Less than 12 Months			12 Months or Greater		
				No. of Sec.	Fair Value	Unrealized Losses	No. of Sec.	Fair Value	Unrealized Losses
December 31, 2018									
Fixed maturities:									
U.S. government obligations	51	\$ 4,438.0	\$ (52.1)	2	\$ 126.6	\$ (0.1)	49	\$ 4,311.4	\$ (52.0)
State and local government obligations	299	972.4	(12.8)	49	192.7	(0.3)	250	779.7	(12.5)
Corporate debt securities	368	6,723.3	(125.3)	133	2,613.3	(33.4)	235	4,110.0	(91.9)
Residential mortgage-backed securities	228	450.2	(5.1)	32	248.8	(0.8)	196	201.4	(4.3)
Commercial mortgage-backed securities	140	2,328.5	(39.0)	48	741.2	(8.9)	92	1,587.3	(30.1)
Other asset-backed securities	203	2,691.3	(11.8)	84	1,551.7	(3.2)	119	1,139.6	(8.6)
Redeemable preferred stocks	3	48.5	(3.5)	1	18.9	(0.6)	2	29.6	(2.9)
Total fixed maturities	1,292	\$17,652.2	\$(249.6)	349	\$5,493.2	\$(47.3)	943	\$12,159.0	\$(202.3)

(\$ in millions)	Total No. of Sec.	Total Fair Value	Gross Unrealized Losses	Less than 12 Months			12 Months or Greater		
				No. of Sec.	Fair Value	Unrealized Losses	No. of Sec.	Fair Value	Unrealized Losses
December 31, 2017									
Fixed maturities:									
U.S. government obligations	58	\$ 5,817.0	\$(44.0)	41	\$ 4,869.3	\$(34.6)	17	\$ 947.7	\$ (9.4)
State and local government obligations	358	1,200.3	(9.3)	230	737.6	(4.4)	128	462.7	(4.9)
Corporate debt securities	222	2,979.4	(14.4)	171	2,072.9	(9.1)	51	906.5	(5.3)
Residential mortgage-backed securities	201	300.9	(3.4)	30	75.1	(0.2)	171	225.8	(3.2)
Commercial mortgage-backed securities	105	1,682.3	(13.3)	63	1,221.2	(5.9)	42	461.1	(7.4)
Other asset-backed securities	197	1,837.3	(4.5)	134	1,377.8	(3.3)	63	459.5	(1.2)
Redeemable preferred stocks	2	21.8	(1.5)	1	10.8	(0.1)	1	11.0	(1.4)
Total fixed maturities	1,143	13,839.0	(90.4)	670	10,364.7	(57.6)	473	3,474.3	(32.8)
Equity securities:									
Nonredeemable preferred stocks	4	127.8	(8.8)	1	56.5	(0.5)	3	71.3	(8.3)
Common equities	19	13.4	(0.2)	18	13.4	(0.2)	1	0	0
Total equity securities	23	141.2	(9.0)	19	69.9	(0.7)	4	71.3	(8.3)
Total portfolio	1,166	\$13,980.2	\$(99.4)	689	\$10,434.6	\$(58.3)	477	\$3,545.6	\$(41.1)

During 2018, the number of securities in our fixed-maturity portfolio with unrealized losses increased slightly as a result of rising interest rates. We had no material decreases in valuation as a result of credit rating downgrades during the year and all of the securities in the table above are current with respect to required principal and interest payments.

Other-Than-Temporary Impairment (OTTI) The following table shows the total non-credit portion of the OTTI recorded in accumulated other comprehensive income, reflecting the original non-credit loss at the time the credit impairment was determined (i.e., unadjusted for valuation changes subsequent to the original write-down):

(millions)	December 31,	
	2018	2017
Fixed maturities:		
Residential mortgage-backed securities	\$(19.7)	\$(19.7)
Commercial mortgage-backed securities	(0.1)	(0.3)
Total fixed maturities	\$(19.8)	\$(20.0)

The following tables provide rollforwards of the amounts related to credit losses recognized in earnings for the periods ended December 31, 2018, 2017, and 2016, for which a portion of the OTTI losses were also recognized in accumulated other comprehensive income at the time the credit impairments were determined and recognized:

(millions)	Residential Mortgage- Backed	Commercial Mortgage- Backed	Total
Total at December 31, 2017	\$ 0	\$ 0.5	\$ 0.5
Credit losses for which an OTTI was not previously recognized	0	0	0
Reductions for securities sold/matured	0	0	0
Change in recoveries of future cash flows expected to be collected ¹	0	0	0
Total at December 31, 2018	\$ 0	\$ 0.5	\$ 0.5

(millions)	Residential Mortgage- Backed	Commercial Mortgage- Backed	Total
Total at December 31, 2016	\$ 11.1	\$ 0.4	\$ 11.5
Credit losses for which an OTTI was not previously recognized	0	0.4	0.4
Reductions for securities sold/matured	(10.9)	(0.3)	(11.2)
Change in recoveries of future cash flows expected to be collected ¹	(0.2)	0	(0.2)
Total at December 31, 2017	\$ 0	\$ 0.5	\$ 0.5

(millions)	Residential Mortgage- Backed	Commercial Mortgage- Backed	Total
Total at December 31, 2015	\$ 12.4	\$ 0.4	\$ 12.8
Credit losses for which an OTTI was not previously recognized	0	0	0
Reductions for securities sold/matured	0	0	0
Change in recoveries of future cash flows expected to be collected ¹	(1.3)	0	(1.3)
Total at December 31, 2016	\$ 11.1	\$ 0.4	\$ 11.5

¹Reflects expected recovery of prior period impairments that will be accreted into income over the remaining life of the security.

Although we determined it is more likely that we will not be required to sell the securities prior to the recovery of their respective cost bases (which could be maturity), we are required to measure the amount of potential credit losses on the securities that were in an unrealized loss position. In that process, we considered a number of factors and inputs related to the individual securities. The methodology and significant inputs used to measure the amount of credit losses in our portfolio included: current performance indicators on the business model or underlying assets (e.g., delinquency rates, foreclosure rates, and default rates); credit support (via current levels of subordination); historical credit ratings; and updated cash flow expectations based upon these performance indicators. In order to determine the amount of credit loss, if any, the net present value of the cash flows expected (i.e., expected recovery value) was calculated using the current book yield for each security, and was compared to its current amortized value. In the event that the net present value was below the amortized value, a credit loss would be deemed to exist, and the security would be written down. We did not have any credit impairment write-downs for the year ended December 31, 2018.

Realized Gains (Losses) The components of net realized gains (losses) for the years ended December 31, were:

(millions)	2018	2017	2016
Gross realized gains on security sales			
Available-for-sale securities:			
U.S. government obligations	\$ 6.7	\$ 6.2	\$ 24.6
State and local government obligations	9.5	10.5	16.0
Corporate and other debt securities	2.4	20.3	43.3
Residential mortgage-backed securities	0	23.8	2.5
Commercial mortgage-backed securities	2.0	4.9	13.3
Other asset-backed securities	0.1	0.3	0
Redeemable preferred stocks	4.5	8.5	20.9
Short-term investments	0	0	0.1
Total available-for-sale securities	25.2	74.5	120.7
Equity securities:			
Nonredeemable preferred stocks	4.1	58.4	11.9
Common equities	286.6	43.0	61.3
Total equity securities	290.7	101.4	73.2
Subtotal gross realized gains on security sales	315.9	175.9	193.9
Gross realized losses on security sales			
Available-for-sale securities:			
U.S. government obligations	(98.7)	(28.7)	(2.4)
State and local government obligations	(2.9)	(0.1)	(1.6)
Corporate and other debt securities	(10.4)	(5.1)	(2.5)
Residential mortgage-backed securities	(0.1)	(0.4)	(0.2)
Commercial mortgage-backed securities	(6.3)	(5.3)	(5.6)
Other asset-backed securities	(1.1)	(0.4)	0
Redeemable preferred stocks	(0.1)	(6.4)	(6.6)
Short-term investments	0	(0.2)	(0.1)
Total available-for-sale securities	(119.6)	(46.6)	(19.0)
Equity securities:			
Nonredeemable preferred stocks	(3.9)	(5.9)	(5.3)
Common equities	(21.7)	(12.2)	(15.7)
Total equity securities	(25.6)	(18.1)	(21.0)
Subtotal gross realized losses on security sales	(145.2)	(64.7)	(40.0)
Net realized gains (losses) on security sales			
Available-for-sale securities:			
U.S. government obligations	(92.0)	(22.5)	22.2
State and local government obligations	6.6	10.4	14.4
Corporate and other debt securities	(8.0)	15.2	40.8
Residential mortgage-backed securities	(0.1)	23.4	2.3
Commercial mortgage-backed securities	(4.3)	(0.4)	7.7
Other asset-backed securities	(1.0)	(0.1)	0
Redeemable preferred stocks	4.4	2.1	14.3
Short-term investments	0	(0.2)	0
Total available-for-sale securities	(94.4)	27.9	101.7
Equity securities:			
Nonredeemable preferred stocks	0.2	52.5	6.6
Common equities	264.9	30.8	45.6
Total equity securities	265.1	83.3	52.2
Litigation settlements and other gains (losses)	0	1.2	0.4
Subtotal net realized gains (losses) on security sales	170.7	112.4	154.3
Net holding period gains (losses)			
Hybrid securities	(10.4)	(1.6)	2.1
Equity securities	(497.5)	0	0
Derivatives	0	0	(20.0)
Subtotal net holding period gains (losses)	(507.9)	(1.6)	(17.9)
Other-than-temporary impairment losses			
Fixed maturities:			
Commercial mortgage-backed securities	0	(0.4)	0
Redeemable preferred stocks	0	0	(25.3)
Total fixed maturities	0	(0.4)	(25.3)
Equity securities:			
Common equities	0	(11.2)	(0.3)
Subtotal investment other-than-temporary impairment losses	0	(11.6)	(25.6)
Other asset impairment	(68.3)	(49.6)	(59.7)
Subtotal other-than-temporary impairment losses	(68.3)	(61.2)	(85.3)
Total net realized gains (losses) on securities	\$(405.5)	\$ 49.6	\$ 51.1

Gross realized gains in 2018 were predominantly in common equities as we sold a portion of our holdings twice during the year in an effort to reduce the portfolio's overall risk profile. Gross realized losses in 2018 were primarily in treasury securities, within our fixed-maturity portfolio. Treasury securities are used to manage our overall portfolio duration and with the volatility in interest rates during 2018, we were active in managing the portfolio's duration to limit potentially significant negative impacts to the fixed-maturity portfolio's overall valuation. Also included are holding period gains and losses, related to valuation changes on equity securities and hybrid securities, recoveries from litigation settlements related to investments, and write-downs for securities determined to be other-than-temporarily impaired. The other asset impairment relates to renewable energy investments, which are reflected in "other assets" on the balance sheet, under which the future pretax cash flows are expected to be less than the carrying value of the assets. See *Note 5 – Income Taxes* for the tax benefits related to these investments.

The following table reflects our holding period realized gains (losses) on equity securities recognized for the year ended December 31, 2018 for equity securities held at year end:

(millions)	2018
Total net gains (losses) recognized during the period on equity securities	\$(232.4)
Less: Net gains (losses) recognized on equity securities sold during the period	265.1
Net holding period gains (losses) recognized during the period on equity securities held at period end	\$(497.5)

Note: Comparative disclosure for the prior year period is not meaningful.

Net Investment Income The components of net investment income for the years ended December 31, were:

(millions)	2018	2017	2016
Available-for-sale securities:			
Fixed maturities:			
U.S. government obligations	\$196.8	\$ 72.7	\$ 18.2
State and local government obligations	37.7	51.5	52.3
Foreign government obligations	0	0.3	0.4
Corporate debt securities	217.9	125.2	110.7
Residential mortgage-backed securities	27.6	34.7	47.3
Commercial mortgage-backed securities	93.9	79.6	81.6
Other asset-backed securities	75.7	47.1	28.0
Redeemable preferred stocks	12.3	11.8	14.9
Total fixed maturities	661.9	422.9	353.4
Short-term investments	52.9	37.8	19.7
Total available-for-sale securities	714.8	460.7	373.1
Equity securities:			
Nonredeemable preferred stocks	45.9	44.1	48.6
Common equities	59.8	58.3	57.2
Total equity securities	105.7	102.4	105.8
Investment income	820.5	563.1	478.9
Investment expenses	(24.3)	(23.9)	(22.4)
Net investment income	\$796.2	\$539.2	\$456.5

The amount of investment income (interest and dividends) we recognize varies based on the average assets held during the year and the book yields of the securities in our portfolio. The increases in net investment income in 2018 and 2017, were due to a combination of an increase in average assets and an increase in portfolio yields. The increase in average assets was due to strong underwriting growth and profitability, as well as the proceeds from debt and preferred stock issuances. The increase in portfolio yields was a result of our decisions to hold a short-duration portfolio, which allowed us to reinvest significant maturities and paydowns of principal at higher yields, and to increase the portfolio duration from 2.2 years at December 31, 2016 to 2.5 years at December 31, 2017, and finally to 2.8 years at December 31, 2018, as interest rates generally rose.

Trading Securities At December 31, 2018 and 2017, we did not hold any trading securities and we did not have any net realized gains (losses) on trading securities for the years ended December 31, 2018, 2017, and 2016.

Derivative Instruments At December 31, 2018, 2017, and 2016, we had no open derivative positions.

During 2018, we reclassified \$1.0 million of net unrealized losses from accumulated other comprehensive income to interest expense on our closed debt issuance cash flow hedges, compared to net unrealized gains of \$0.3 million and \$1.9 million during 2017 and 2016, respectively.

During March 2017, we entered into a forecasted debt issuance hedge, against a possible rise in interest rates, in conjunction with the \$850 million of 4.125% Senior Notes due 2047 issued in April 2017. Upon issuance, we closed the hedge and recognized, as part of accumulated other comprehensive income, a pretax unrealized loss of \$8.0 million in April 2017.

From time to time, we use interest rate swaps and treasury futures contracts to manage the fixed-income portfolio duration. During 2016, we closed interest rate swaps and treasury futures contracts with notional values of \$750 million and \$135 million, respectively. We recorded a net realized loss of \$19.0 million on the interest rate swaps and a net realized gain of \$0.3 million on the treasury futures.

3. FAIR VALUE

We have categorized our financial instruments, based on the degree of subjectivity inherent in the method by which they are valued, into a fair value hierarchy of three levels, as follows:

- *Level 1*: Inputs are unadjusted, quoted prices in active markets for identical instruments at the measurement date (e.g., U.S. government obligations, which are continually priced on a daily basis, active exchange-traded equity securities, and certain short-term securities).
- *Level 2*: Inputs (other than quoted prices included within Level 1) that are observable for the instrument either directly or indirectly (e.g., certain corporate and municipal bonds and certain preferred stocks). This includes: (i) quoted prices for similar instruments in active markets, (ii) quoted prices for identical or similar instruments in markets that are not active, (iii) inputs other than quoted prices that are observable for the instruments, and (iv) inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- *Level 3*: Inputs that are unobservable. Unobservable inputs reflect our subjective evaluation about the assumptions market participants would use in pricing the financial instrument (e.g., certain structured securities and privately held investments).

Determining the fair value of the investment portfolio is the responsibility of management. As part of the responsibility, we evaluate whether a market is distressed or inactive in determining the fair value for our portfolio. We review certain market level inputs to evaluate whether sufficient activity, volume, and new issuances exist to create an active market. Based on this evaluation, we concluded that there was sufficient activity related to the sectors and securities for which we obtained valuations.

The composition of the investment portfolio by major security type and our outstanding debt was:

(millions)	Fair Value			Total	Cost
	Level 1	Level 2	Level 3		
December 31, 2018					
Fixed maturities:					
U.S. government obligations	\$ 9,916.5	\$ 0	\$ 0	\$ 9,916.5	\$ 9,897.4
State and local government obligations	0	1,649.1	0	1,649.1	1,654.6
Corporate debt securities	0	8,694.3	0	8,694.3	8,808.5
Subtotal	9,916.5	10,343.4	0	20,259.9	20,360.5
Asset-backed securities:					
Residential mortgage-backed	0	734.4	0	734.4	733.5
Commercial mortgage-backed	0	3,301.6	0	3,301.6	3,332.8
Other asset-backed	0	3,577.3	0	3,577.3	3,585.4
Subtotal asset-backed securities	0	7,613.3	0	7,613.3	7,651.7
Redeemable preferred stocks:					
Financials	0	78.2	0	78.2	79.3
Utilities	0	0	0	0	0
Industrials	9.5	150.6	0	160.1	164.4
Subtotal redeemable preferred stocks	9.5	228.8	0	238.3	243.7
Total fixed maturities	9,926.0	18,185.5	0	28,111.5	28,255.9
Short-term investments	1,722.1	73.8	0	1,795.9	1,795.9
Total available-for-sale securities	11,648.1	18,259.3	0	29,907.4	30,051.8
Equity securities:					
Nonredeemable preferred stocks:					
Financials	71.9	887.1	25.1	984.1	951.6
Utilities	0	44.8	0	44.8	46.0
Industrials	0	0	5.0	5.0	5.0
Subtotal nonredeemable preferred stocks	71.9	931.9	30.1	1,033.9	1,002.6
Common equities:					
Common stocks	2,625.8	0	0	2,625.8	1,148.6
Other risk investments	0	0	0.3	0.3	0.3
Subtotal common equities	2,625.8	0	0.3	2,626.1	1,148.9
Total equity securities	2,697.7	931.9	30.4	3,660.0	2,151.5
Total portfolio	\$14,345.8	\$19,191.2	\$30.4	\$33,567.4	\$32,203.3
Debt	\$ 0	\$ 4,532.3	\$ 0	\$ 4,532.3	\$ 4,404.9

(millions)	Fair Value				Cost
	Level 1	Level 2	Level 3	Total	
December 31, 2017					
Fixed maturities:					
U.S. government obligations	\$ 6,645.9	\$ 0	\$ 0	\$ 6,645.9	\$ 6,688.8
State and local government obligations	0	2,297.1	0	2,297.1	2,285.6
Corporate debt securities	0	4,997.7	0	4,997.7	4,997.2
Subtotal	6,645.9	7,294.8	0	13,940.7	13,971.6
Asset-backed securities:					
Residential mortgage-backed	0	836.7	0	836.7	828.8
Commercial mortgage-backed	0	2,758.6	0	2,758.6	2,760.1
Other asset-backed	0	2,454.7	0	2,454.7	2,454.5
Subtotal asset-backed securities	0	6,050.0	0	6,050.0	6,043.4
Redeemable preferred stocks:					
Financials	0	64.1	0	64.1	61.3
Utilities	0	11.4	0	11.4	10.1
Industrials	0	135.5	0	135.5	123.5
Subtotal redeemable preferred stocks	0	211.0	0	211.0	194.9
Total fixed maturities	6,645.9	13,555.8	0	20,201.7	20,209.9
Short-term investments	1,824.4	1,045.0	0	2,869.4	2,869.4
Total fixed maturities and short-term	8,470.3	14,600.8	0	23,071.1	23,079.3
Equity securities:					
Nonredeemable preferred stocks:					
Financials	80.6	718.2	0	798.8	693.6
Utilities	0	0	0	0	0
Industrials	0	0	5.0	5.0	5.0
Subtotal nonredeemable preferred stocks	80.6	718.2	5.0	803.8	698.6
Common equities:					
Common stocks	3,399.5	0	0	3,399.5	1,498.7
Other risk investments	0	0	0.3	0.3	0.3
Subtotal common equities	3,399.5	0	0.3	3,399.8	1,499.0
Total equity securities	3,480.1	718.2	5.3	4,203.6	2,197.6
Total available-for-sale portfolio	\$11,950.4	\$15,319.0	\$ 5.3	\$27,274.7	\$25,276.9
Debt	\$ 0	\$ 3,606.5	\$37.1	\$ 3,643.6	\$ 3,306.3

Our portfolio valuations, excluding short-term investments, classified as either Level 1 or Level 2 in the above tables are priced exclusively by external sources, including: pricing vendors, dealers/market makers, and exchange-quoted prices.

Our short-term security holdings classified as Level 1 are highly liquid, actively marketed, and have a very short duration, primarily 90 days or less to redemption. These securities are held at their original cost, adjusted for any accretion of discount, since that value very closely approximates what an active market participant would be willing to pay for such securities. The remainder of our short-term securities are classified as Level 2 and are not priced externally since these securities continually trade at par value. These securities are classified as Level 2 since they are primarily longer-dated securities issued by municipalities that contain either liquidity facilities or mandatory put features within one year.

At December 31, 2018, vendor-quoted prices represented 79% of our Level 1 classifications (excluding short-term investments), compared to 66% at December 31, 2017. The securities quoted by vendors in Level 1 primarily represent our holdings in U.S. Treasury Notes, which are frequently traded and the quotes are considered similar to exchange-traded quotes. The balance of our Level 1 pricing comes from quotes obtained directly from trades made on active exchanges.

At December 31, 2018, vendor-quoted prices comprised 99% of our Level 2 classifications (excluding short-term investments), while dealer-quoted prices represented 1%, compared to 98% and 2% at December 31, 2017, respectively. In our process for selecting a source (e.g., dealer or pricing service) to provide pricing for securities in our portfolio, we reviewed

documentation from the sources that detailed the pricing techniques and methodologies used by these sources and determined if their policies adequately considered market activity, either based on specific transactions for the particular security type or based on modeling of securities with similar credit quality, duration, yield, and structure that were recently transacted. Once a source is chosen, we continue to monitor any changes or modifications to their processes by reviewing their documentation on internal controls for pricing and market reviews. We review quality control measures of our sources as they become available to determine if any significant changes have occurred from period to period that might indicate issues or concerns regarding their evaluation or market coverage.

As part of our pricing procedures, we obtain quotes from more than one source to help us fully evaluate the market price of securities. However, our internal pricing policy is to use a consistent source for individual securities in order to maintain the integrity of our valuation process. Quotes obtained from the sources are not considered binding offers to transact. Under our policy, when a review of the valuation received from our selected source appears to be outside of what is considered market level activity (which is defined as trading at spreads or yields significantly different than those of comparable securities or outside the general sector level movement without a reasonable explanation), we may use an alternate source's price. To the extent we determine that it may be prudent to substitute one source's price for another, we will contact the initial source to obtain an understanding of the factors that may be contributing to the significant price variance, which often leads the source to adjust their pricing input data for future pricing.

To allow us to determine if our initial source is providing a price that is outside of a reasonable range, we review our portfolio pricing on a weekly basis. When necessary, we challenge prices from our sources when a price provided does not match our expectations based on our evaluation of market trends and activity. Initially, we perform a review of our portfolio by sector to identify securities whose prices appear outside of a reasonable range. We then perform a more detailed review of fair values for securities disclosed as Level 2. We review dealer bids and quotes for these and/or similar securities to determine the market level context for our valuations. We then evaluate inputs relevant for each class of securities disclosed in the preceding hierarchy tables.

For our structured debt securities, including commercial, residential, and asset-backed securities, we evaluate available market-related data for these and similar securities related to collateral, delinquencies, and defaults for historical trends and reasonably estimable projections, as well as historical prepayment rates and current prepayment assumptions and cash flow estimates. We further stratify each class of our structured debt securities into more finite sectors (e.g., planned amortization class, first pay, second pay, senior, subordinated, etc.) and use duration, credit quality, and coupon to determine if the fair value is appropriate.

For our corporate debt and preferred stock (redeemable and nonredeemable) portfolios, as well as the notes issued by The Progressive Corporation (see *Note 4 – Debt*), we review securities by duration, coupon, and credit quality, as well as changes in interest rate and credit spread movements within that stratification. The review also includes recent trades, including: volume traded at various levels that establish a market, issuer specific fundamentals, and industry specific economic news as it comes to light.

For our municipal securities (e.g., general obligations, revenue, and housing), we stratify the portfolio to evaluate securities by type, coupon, credit quality, and duration to review price changes relative to credit spread and interest rate changes. Additionally, we look to economic data as it relates to geographic location as an indication of price-to-call or maturity predictors. For municipal housing securities, we look to changes in cash flow projections, both historical and reasonably estimable projections, to understand yield changes and their effect on valuation.

Lastly, for our short-term securities, we look at acquisition price relative to the coupon or yield. Since our short-term securities are typically 90 days or less to maturity, with the majority listed in Level 2 being 30 days or less to redemption, we believe that acquisition price is the best estimate of fair value.

We also review data assumptions as supplied by our sources to determine if that data is relevant to current market conditions. In addition, we independently review each sector for transaction volumes, new issuances, and changes in spreads, as well as the overall movement of interest rates along the yield curve to determine if sufficient activity and liquidity exists to provide a credible source for our market valuations.

During each valuation period, we create internal estimations of portfolio valuation (performance returns), based on current market-related activity (i.e., interest rate and credit spread movements and other credit-related factors) within each major sector of our portfolio. We compare our internally generated portfolio results with those generated based on quotes we receive externally and research material valuation differences. We compare our results to index returns for each major sector adjusting for duration and credit quality differences to better understand our portfolio's results. Additionally, we review on a monthly basis our external sales transactions and compare the actual final market sales prices to previous market valuation prices. This review provides us further validation that our pricing sources are providing market level prices, since we are able to explain significant price changes (i.e., greater than 2%) as known events occur in the marketplace and affect a particular security's price at sale.

This analysis provides us with additional comfort regarding the source's process, the quality of its review, and its willingness to improve its analysis based on feedback from clients. We believe this effort helps ensure that we are reporting the most representative fair values for our securities.

Except as described below, our Level 3 securities are also priced externally; however, due to several factors (e.g., nature of the securities, level of activity, and lack of similar securities trading to obtain observable market level inputs), these valuations are more subjective in nature. Certain private equity investments and fixed-income investments included in the Level 3 category are valued using external pricing supplemented by internal review and analysis.

After all the valuations are received and our review is complete, if the inputs used by vendors are determined to not contain sufficient observable market information, we will reclassify the affected security valuations to Level 3. At December 31, 2018 and 2017, we did not have any securities in our fixed-maturity portfolio listed as Level 3.

At December 31, 2018, we owned two privately held nonredeemable preferred securities with a combined value of \$30.1 million that were priced internally, compared to one private nonredeemable preferred security with a value of \$5.0 million that was priced internally at December 31, 2017. At December 31, 2018, and 2017, we held one Level 3 other risk investment with a value of \$0.3 million.

We review the prices from our external sources for reasonableness using internally developed assumptions to derive prices for the Level 3 securities, which are then compared to the prices we received. During 2018 or 2017, there were no material assets or liabilities measured at fair value on a nonrecurring basis. Based on our review, all prices received from external sources remained unadjusted. Due to the relative size of the Level 3 securities' fair values compared to the total portfolio's fair value, any changes in pricing methodology would not have a significant change in valuation that would materially impact net or comprehensive income.

The following tables provide a summary of changes in fair value associated with Level 3 assets for the years ended December 31, 2018 and 2017:

(millions)	Level 3 Fair Value							Fair Value at Dec. 31, 2018
	Fair Value at Dec. 31, 2017	Calls/ Maturities/ Paydowns	Purchases	Sales	Net Realized (Gain)/Loss on Sales	Change in Valuation	Net Transfers In (Out)	
Fixed maturities:								
Asset-backed securities:								
Commercial mortgage-backed	\$ 0	\$0	\$ 0	\$0	\$0	\$0	\$0	\$ 0
Equity securities:								
Nonredeemable preferred stocks:								
Financials	0	0	25.1	0	0	0	0	25.1
Industrials	5.0	0	0	0	0	0	0	5.0
Common equities:								
Other risk investments	0.3	0	0	0	0	0	0	0.3
Total Level 3 securities	\$5.3	\$0	\$25.1	\$0	\$0	\$0	\$0	\$30.4

(millions)	Level 3 Fair Value							Fair Value at Dec. 31, 2017
	Fair Value at Dec. 31, 2016	Calls/ Maturities/ Paydowns	Purchases	Sales	Net Realized (Gain)/Loss on Sales	Change in Valuation	Net Transfers In (Out)	
Fixed maturities:								
Asset-backed securities:								
Commercial mortgage-backed	\$0.3	\$(0.3)	\$ 0	\$0	\$0	\$0	\$0	\$ 0
Equity securities:								
Nonredeemable preferred stocks:								
Financials	0	0	0	0	0	0	0	0
Industrials	0	0	5.0	0	0	0	0	5.0
Common equities:								
Other risk investments	0.4	(0.1)	0	0	0	0	0	0.3
Total Level 3 securities	\$0.7	\$(0.4)	\$5.0	\$0	\$0	\$0	\$0	\$5.3

The following tables provide a summary of the quantitative information about Level 3 fair value measurements for our applicable securities at December 31:

(\$ in millions)	Quantitative Information about Level 3 Fair Value Measurements			
	Fair Value at Dec. 31, 2018	Valuation Technique	Unobservable Input	Unobservable Input Assumption
Equity securities:				
Nonredeemable preferred stocks:				
Financials ¹	\$25.1	Internal price	Unadjusted purchase price	9.0
Industrials ²	5.0	Internal price	Price-to-sales ratio	5.5
Subtotal Level 3 securities	30.1			
Pricing exemption securities ³	0.3			
Total Level 3 securities	\$30.4			

¹The security was internally-priced since it is privately held. The security was purchased during December 2018 and the value at December 31, 2018 reflects the unadjusted purchase price per share.

²The security was internally-priced since it is privately held. The price at December 31, 2018, was calculated using a price-to-sales ratio.

³The unobservable input is not reasonably available to us.

(\$ in millions)	Quantitative Information about Level 3 Fair Value Measurements			
	Fair Value at Dec. 31, 2017	Valuation Technique	Unobservable Input	Unobservable Input Assumption
Equity securities:				
Nonredeemable preferred stocks:				
Financials	\$ 0	NA	NA	NA
Industrials ¹	5.0	Internal price	Unadjusted purchase price	3.9
Subtotal Level 3 securities	5.0			
Pricing exemption securities ²	0.3			
Total Level 3 securities	\$5.3			

NA = Not Available

¹The security was internally-priced since it is privately held. The security was purchased during third quarter 2017 and the value at December 31, 2017, reflects the unadjusted purchase price per share.

²The unobservable input is not reasonably available to us.

4. DEBT

Debt at December 31, consisted of:

(millions)	2018		2017	
	Carrying Value	Fair Value	Carrying Value	Fair Value
3.75% Senior Notes due 2021 (issued: \$500.0, August 2011)	\$ 499.1	\$ 506.5	\$ 498.8	\$ 520.7
2.45% Senior Notes due 2027 (issued: \$500.0, August 2016)	496.5	455.5	496.1	477.9
6 5/8% Senior Notes due 2029 (issued: \$300.0, March 1999)	296.4	368.5	296.1	382.3
4.00% Senior Notes due 2029 (issued: \$550.0, October 2018)	544.5	562.4	0	0
6.25% Senior Notes due 2032 (issued: \$400.0, November 2002)	395.5	496.6	395.3	516.9
4.35% Senior Notes due 2044 (issued: \$350.0, April 2014)	346.6	350.2	346.5	388.7
3.70% Senior Notes due 2045 (issued: \$400.0, January 2015)	395.3	366.7	395.2	402.9
4.125% Senior Notes due 2047 (issued: \$850.0, April 2017)	841.4	831.9	841.2	917.1
4.20% Senior Notes due 2048 (issued: \$600.0, March 2018)	589.6	594.0	0	0
Other debt instruments ¹	0	0	37.1	37.1
Total	\$4,404.9	\$4,532.3	\$3,306.3	\$3,643.6

¹Consist of term loans issued by ARX prior to The Progressive Corporation acquiring a controlling interest in 2015. The repayment was funded in part with proceeds from fixed-rate loans made to ARX by The Progressive Corporation. These intercompany transactions were eliminated in consolidation.

Aggregate required principal payments on debt outstanding at December 31, 2018, are as follows:

(millions) Year	Payments
2019	\$ 0
2020	0
2021	500
2022	0
2023	0
Thereafter	3,950
Total	\$4,450

All of the outstanding debt was issued by The Progressive Corporation and includes amounts that were borrowed and contributed to the capital of its insurance subsidiaries or used, or made available for use, for other business purposes. Fair values for these debt instruments are obtained from external sources. There are no restrictive financial covenants or credit rating triggers on the outstanding debt.

Interest on all debt is payable semiannually at the stated rates. All principal is due at the maturity stated in the tables above. Each note is redeemable, in whole or in part, at any time; however, the redemption price will equal the greater of the principal amount of the note or a "make whole" amount calculated by reference to the present values of remaining scheduled principal and interest payments under the note.

We issued \$550 million of 4.00% Senior Notes due 2029 in October 2018, \$600 million of 4.20% Senior Notes due 2048 in March 2018, and \$850 million of 4.125% Senior Notes due 2047 in April 2017, in underwritten public offerings. The net proceeds from these issuances, after deducting underwriters' discounts, commissions, and other issuance costs, were approximately \$544.5 million, \$589.5 million, and \$841.1 million, respectively.

Prior to certain issuances of our debt securities, we entered into forecasted transactions to hedge against possible rises in interest rates. When the contracts were closed upon the issuance of the applicable debt securities, we recognized the unrealized gains (losses) on these contracts as part of accumulated other comprehensive income (see *Note 1 – Reporting and Accounting Policies* for further discussion). These unrealized gains (losses) are being amortized as adjustments to interest expense over the life of the related notes. The following table shows the original gain (loss) recognized at debt issuance and the unamortized balance at December 31, 2018, on a pretax basis:

(millions)	Unrealized Gain (Loss) at Debt Issuance	Unamortized Balance at December 31, 2018
3.75% Senior Notes	\$ (5.1)	\$ (1.5)
6 5/8% Senior Notes	(4.2)	(2.6)
6.25% Senior Notes	5.1	3.5
4.35% Senior Notes	(1.6)	(1.5)
3.70% Senior Notes	(12.9)	(11.9)
4.125% Senior Notes	(8.0)	(7.8)

During 2018, The Progressive Corporation entered into a new line of credit with PNC Bank, National Association (PNC) in the maximum principal amount of \$250 million. The prior line of credit, entered into in 2017, expired in April 2018. The line of credit has the same terms and conditions of the previous line of credit. Subject to the terms and conditions of the line of credit documents, advances under the line of credit (if any) will bear interest at a variable rate equal to the higher of PNC's Prime Rate or the sum of the Federal Funds Open Rate plus 50 basis points. Each advance must be repaid on the 30th day after the advance or, if earlier, on April 30, 2019, the expiration date of the line of credit. Prepayments are permitted without penalty. The line of credit is uncommitted and, as such, all advances are subject to PNC's discretion. We had no borrowings under either line of credit in 2018 or 2017.

5. INCOME TAXES

The components of our income tax provision were as follows:

(millions)	2018	2017	2016
Current tax provision			
Federal	\$ 673.1	\$ 680.9	\$ 469.6
State	21.5	12.8	12.7
Deferred tax expense (benefit)			
Federal	(145.9)	(149.4)	(66.3)
State	(6.1)	(3.5)	(2.5)
Total income tax provision	\$ 542.6	\$ 540.8	\$ 413.5

The provision for income taxes in the accompanying consolidated statements of comprehensive income differed from the statutory rate as follows:

(\$ in millions)	2018		2017		2016	
Income before income taxes	<u>\$3,163.6</u>		<u>\$2,138.9</u>		<u>\$1,470.7</u>	
Tax at statutory federal rate	\$ 664.4	21%	\$ 748.6	35%	\$ 514.8	35%
Tax effect of:						
Tax credits ¹	(76.3)	(2)	(52.4)	(2)	(62.2)	(4)
Stock-based compensation ²	(25.1)	(1)	(25.1)	(1)	0	0
Tax-deductible dividends	(14.6)	(1)	(9.7)	0	(6.1)	0
Dividends received deduction ^{3, 4}	(9.7)	0	(20.7)	(1)	(22.6)	(2)
Exempt interest income ⁴	(5.9)	0	(16.9)	(1)	(15.7)	(1)
Nondeductible compensation expense ⁵	(0.2)	0	10.1	0	0.5	0
Net deferred tax liability revaluation ⁶	0	0	(99.5)	(5)	0	0
State income taxes, net of federal taxes	12.2	0	6.0	0	6.6	0
Other items, net	(2.2)	0	0.4	0	(1.8)	0
Total income tax provision	<u>\$ 542.6</u>	<u>17%</u>	<u>\$ 540.8</u>	<u>25%</u>	<u>\$ 413.5</u>	<u>28%</u>

¹Includes \$71.0 million, \$48.7 million, and \$58.7 million for 2018, 2017, and 2016, respectively, of benefits on investments in federal renewable energy tax credit funds.

²Represents excess tax benefits associated with share-based payments awards. Prior to 2017, these excess tax benefits were recorded directly to additional paid-in capital under the then existing accounting guidance.

³2018 amount reflects a dividends received deduction percentage of 50% under the 2017 Tax Act. In 2017 and prior years the deduction percentage was 70%.

⁴2018 amounts reflect a proration percentage of 25% for such income attributable to investments held by our insurance companies. In 2017 and prior years the proration percentage was 15%.

⁵Decrease in 2018 reflects our updated interpretation regarding compensation that qualifies for deduction under the 2017 Tax Act based on additional guidance issued. Increase in 2017 primarily reflected our initial interpretation regarding the deductibility of such compensation. See further discussion below.

⁶Pursuant to the 2017 Tax Act.

We understand that the sponsor of three federal renewable energy tax credit funds in which we invested from 2016 through 2018, along with the owners of the sponsor, are under investigation by federal authorities. We have also learned that the sponsor and certain related entities filed for bankruptcy protection in early February 2019 and, since then, federal authorities filed a forfeiture action in federal court against certain real estate and related entities owned, directly or indirectly, by the sponsor's owners. The forfeiture action alleges that the sponsor and its owners engaged in fraud in connection with its operations and the establishment of certain tax credit funds. Our investment in these transactions generated approximately \$150 million of tax benefits. We cannot predict if these matters will lead to an impact on the validity of any portion of these federal tax credits or require an additional write down on the related investments, which were valued at \$24.3 million, in the aggregate, as of December 31, 2018.

On December 22, 2017, legislation commonly known as the Tax Cuts and Jobs Act of 2017 (the "2017 Tax Act") was signed into law. One of the provisions of the 2017 Tax Act reduced the corporate federal income tax rate from 35% to 21% effective January 1, 2018. Pursuant to current accounting guidance, all deferred tax assets and liabilities at December 31, 2017, were revalued to recognize the tax rate that is expected to apply when the tax effects are ultimately recognized in future periods. The impact of revaluing the deferred tax assets and liabilities from 35% to 21% was a net reduction to income tax expense of \$99.5 million in 2017, as disclosed in the table above. This revaluation adjustment included a \$275.7 million reduction related to the deferred tax liability associated with the net unrealized gains on our investment portfolio, which was originally recorded as a component of other comprehensive income and not through the tax provision. The remaining \$176.2 million, which increased the tax provision, was associated with our other deferred tax assets and liabilities identified in the table below.

As of December 31, 2018, we updated our accounting for the tax effects of the enactment of the 2017 Tax Act, which we were not able to fully complete at December 31, 2017, with regards to the following:

- We reversed \$3.9 million of the \$4.5 million provisional tax amount that we recorded in 2017 related to deductibility of compensation expense for certain covered executives due to uncertainty surrounding the appropriate tax treatment of outstanding performance-based awards at that time. The IRS issued additional guidance during 2018 that clarified the treatment of these awards. We also recorded a benefit of \$0.3 million in 2018 related to compensation expense for time-based awards granted to the chief financial officer that we had treated as nondeductible at December 31, 2017. The benefit of both of these amounts is reflected in the nondeductible compensation expense line item in the table above for the 2018 year.
- We recorded an increase to the deferred tax asset for loss and loss adjustment expense reserves of \$67.1 million and an offsetting deferred tax liability in the same amount for the transition adjustment, which is recognized over an 8-year period as required by the 2017 Tax Act. At December 31, 2017, we did not record any amounts related to the changes in loss reserve discounting required by the 2017 Tax Act since the IRS had not yet published new discount factors based on loss payment patterns and interest rates determined under the 2017 Tax Act and we were unable to make a reasonable estimate. The IRS published the new discount factors in 2018, which allowed us to compute the adjustments. The impact of these amounts are included in the 2018 deferred tax assets and liabilities and are reflected in the table below.

Deferred income taxes reflect the effect for financial statement reporting purposes of temporary differences between the financial statement carrying amounts and the tax bases of assets and liabilities. The following table shows the components of the net deferred tax asset (liability) at December 31, 2018 and 2017. As noted above, the federal deferred tax assets (liabilities) at December 31, 2017, have been revalued to reflect the new 21% federal corporate income tax rate under the 2017 Tax Act.

(millions)	2018	2017
Federal deferred tax assets:		
Unearned premiums reserve	\$ 439.9	\$ 368.9
Non-deductible accruals	169.3	166.0
Loss and loss adjustment expense reserves	134.6	48.4
Net unrealized losses on fixed-maturity securities	28.2	0
Hedges on forecasted transactions	4.6	4.8
Other	16.2	7.3
Federal deferred tax liabilities:		
Net holding period gains on equity securities	(316.8)	0
Deferred acquisition costs	(199.8)	(163.9)
Property and equipment	(85.7)	(75.5)
Loss and loss adjustment expense reserve transition adjustment	(58.5)	0
Intangible assets	(52.2)	(66.6)
Investment basis differences	(43.3)	(5.5)
Prepaid expenses	(4.7)	(7.1)
Deferred gain on extinguishment of debt	0	(0.4)
Net unrealized gains on securities	0	(419.5)
Other	(8.9)	(6.1)
Net federal deferred tax asset (liability)	22.9	(149.2)
Net state deferred tax asset	20.3	14.2
Net deferred tax asset (liability)	\$ 43.2	\$(135.0)

Although realization of the deferred tax assets is not assured, management believes that it is more likely than not that the deferred tax assets will be realized based on our expectation that we will be able to fully utilize the deductions that are ultimately recognized for tax purposes and, therefore, no valuation allowance was needed at December 31, 2018 or 2017.

At December 31, 2018 and 2017, we had \$16.8 million and \$23.8 million, respectively, of net taxes payable (included in other liabilities on the balance sheet).

The Progressive Corporation and its wholly-owned subsidiaries file a consolidated federal income tax return. Effective April 2, 2018, we acquired additional shares of ARX to increase our ownership above 80%. As a result, ARX and its subsidiaries will be included in The Progressive Corporation consolidated federal income tax return for the period from April 3 to December 31, 2018. ARX will file a final consolidated federal income tax return with its subsidiaries for the period from January 1 to April 2, 2018.

The Progressive Corporation and its wholly-owned subsidiaries have been a participant in the Compliance Assurance Program (CAP) since 2007. Under CAP, the IRS begins its examination process for the tax year before the tax return is filed, by examining significant transactions and events as they occur; however, a CAP examination does not include equity investments in pass-through entities in which the taxpayer owns less than 100% (e.g., partnerships, joint ventures, etc.). The goal of the CAP program is to expedite the exam process and to reduce the level of uncertainty regarding a taxpayer's tax filing positions.

All federal income tax years prior to 2015 are closed to examination for both The Progressive Corporation and ARX. The IRS CAP exams for 2015-2017 for The Progressive Corporation have been completed and the returns were accepted as filed. We consider these years to be effectively settled. The 2018 tax year remains open to examination.

For 2017 and prior years, ARX and its wholly owned subsidiaries filed their own consolidated federal income tax returns since we owned less than 80% of their outstanding stock. All tax years prior to 2015 are closed and the 2015-2018 tax years remain open to examination.

The statute of limitations for state income tax purposes generally remains open for three to four years from the return filing date, depending upon the jurisdiction. There has been no significant state income tax audit activity.

We recognize interest and penalties, if any, as a component of income tax expense. For the years ended December 31, 2018, 2017, and 2016, \$0, \$0.2 million, and less than \$0.1 million, respectively, of interest and penalties expense has been recorded in the tax provision. We have not recorded any unrecognized tax benefits, or any related interest and penalties, as of December 31, 2018 and 2017.

6. LOSS AND LOSS ADJUSTMENT EXPENSE RESERVES

We write personal and commercial auto insurance, residential property insurance, and other specialty property-casualty insurance and related services throughout the United States. As a property-casualty insurance company, we are exposed to hurricanes or other catastrophes. To help mitigate this risk, we maintain excess of loss and aggregate stop-loss reinsurance coverage on our Property business. Although the occurrence of a major catastrophe could have a significant effect on our monthly or quarterly results, we believe that, based on historical experience, such an event would not be so material as to disrupt the overall normal operations of Progressive. We are unable to predict the frequency or severity of any such events that may occur in the near term or thereafter.

As we are primarily an insurer of motor vehicles and residential property, we have limited exposure to environmental, asbestos, and general liability claims. We have established reserves for such exposures, which represent about 0.05% of our total loss and loss adjustment expense reserves. We believe these reserves to be adequate based on information currently known. These claims are not expected to have a material effect on our liquidity, financial condition, cash flows, or results of operations.

Loss and Loss Adjustment Expense Reserves

Loss and loss adjustment expense (LAE) reserves represent our best estimate of our ultimate liability for losses and LAE relating to events that occurred prior to the end of any given accounting period but have not yet been paid. For our vehicle businesses, which represent about 97% of our total carried reserves, we establish loss and LAE reserves after completing reviews at a disaggregated level of grouping. Progressive's actuarial staff reviews over 400 subsets of business data, which are at a combined state, product, and line coverage level, to calculate the needed loss and LAE reserves. During a reserve review, ultimate loss amounts are estimated using several industry standard actuarial projection methods. These methods take into account historical comparable loss data at the subset level and estimate the impact of various loss development factors, such as the frequency (number of losses per earned car year), severity (dollars of loss per each claim), and average premium (dollars of premium per earned car year), as well as the frequency and severity of loss adjustment expense costs.

We begin our review of a set of data by producing multiple estimates of needed reserves, using both paid and incurred data, to determine if a reserve change is required. In the event of a wide variation among results generated by the different projections, our actuarial group will further analyze the data using additional quantitative analysis. Each review develops a point estimate for a relatively small subset of the business, which allows us to establish meaningful reserve levels for that subset. We believe our comprehensive process of reviewing at a subset level provides us more meaningful estimates of our aggregate loss reserves.

The actuarial staff completes separate projections of needed case and incurred but not recorded (IBNR) reserves. Since a large majority of the parties involved in an accident report their claims within a short time period after the occurrence, we do not carry a significant amount of IBNR reserves for older accident years. Based on the methodology we use to estimate case reserves for our vehicle businesses, we do not have expected development on reported claims included in our IBNR reserves. We do, however, include anticipated salvage and subrogation recoveries in our IBNR reserves, which could result in negative carried IBNR reserves, primarily in our physical damage reserves.

Changes from historical data may reduce the predictiveness of our projected future loss costs. Internal considerations that are process-related, which generally result from changes in our claims organization's activities, include claim closure rates, the number of claims that are closed without payment, and the level of the claims representatives' estimates of the needed case reserve for each claim. These changes and their effect on the historical data are studied at the state level versus on a larger, less indicative, countrywide basis. External items considered include the litigation atmosphere, state-by-state changes in medical costs, and the availability of services to resolve claims. These also are better understood at the state level versus at a more macro, countrywide level. The actuarial staff takes these changes into consideration when making their assumptions to determine needed reserve levels.

Similar to our vehicle businesses, our actuarial staff analyzes loss and LAE Property data on an accident period basis. Many of the methodologies and key parameters reviewed are similar. Unlike our vehicle businesses, primarily due to the low levels of reserves, data is reviewed at a macro level and a range of reserves is generated to determine a reasonable range. In addition, for our Property business, since claims adjusters primarily establish the case reserves, the actuarial staff includes expected development on case reserves as a component of the overall IBNR reserves.

Activity in the loss and loss adjustment expense reserves is summarized as follows:

(millions)	2018	2017	2016
Balance at January 1	\$13,086.9	\$11,368.0	\$10,039.0
Less reinsurance recoverables on unpaid losses	2,170.1	1,801.0	1,442.7
Net balance at January 1	10,916.8	9,567.0	8,596.3
Net loss and loss adjustment reserves disposed	0	0	(2.5)
Total beginning reserves	10,916.8	9,567.0	8,593.8
Incurred related to:			
Current year	21,632.5	18,782.1	16,967.1
Prior years	88.5	25.9	(87.5)
Total incurred	21,721.0	18,808.0	16,879.6
Paid related to:			
Current year	13,792.1	12,201.5	11,149.0
Prior years	6,017.6	5,256.7	4,757.4
Total paid	19,809.7	17,458.2	15,906.4
Net balance at December 31	12,828.1	10,916.8	9,567.0
Plus reinsurance recoverables on unpaid losses	2,572.7	2,170.1	1,801.0
Balance at December 31	\$15,400.8	\$13,086.9	\$11,368.0

We experienced unfavorable reserve development of \$88.5 million and \$25.9 million in 2018 and 2017, respectively, and favorable development of \$87.5 million in 2016, which is reflected as "Incurred related to prior years" in the table above.

2018

- Approximately \$99 million of unfavorable prior year reserve development was attributable to accident years 2017 and 2016. This unfavorable development was offset by about \$10 million of favorable development attributable to accident year 2015 and prior accident years.
- Our personal auto products incurred almost \$85 million of unfavorable loss and LAE reserve development, with approximately 70% attributable to the Agency business and 30% attributable to the Direct business, primarily reflecting unfavorable development from reopened Florida personal injury protection (PIP) claims.

- Our special lines and Property businesses experienced about \$5 million and \$3 million of unfavorable development, respectively, while our commercial auto products had about \$4 million of favorable reserve development.

2017

- Approximately \$64 million of unfavorable prior year reserve development was attributable to accident years 2016 and 2015. This unfavorable development was offset by \$38 million of favorable development attributable to accident year 2014 and prior accident years.
- Our personal auto products incurred \$70 million of unfavorable loss and LAE reserve development, primarily in the Agency business, in part reflecting an increase in costs related to property damage and higher LAE costs, primarily due to an increase in incentive compensation and defense counsel spend.
- Our Property business experienced \$37 million in favorable development primarily due to lower severity and frequency than anticipated for accident year 2016 and development of losses eligible to be ceded under our catastrophe bond reinsurance program.
- Our commercial auto products had less than \$1 million of unfavorable reserve development.

2016

- Approximately \$56 million of the favorable prior year reserve development was attributable to accident year 2015, and approximately \$51 million of favorable development was attributable to accident years 2013 and prior. This favorable development was partially offset by \$19 million of unfavorable development attributable to accident year 2014.
- Our Personal Lines and Property businesses incurred \$54 million and \$52 million, respectively, of favorable loss and LAE reserve development, partially offset by the unfavorable loss and LAE development in Commercial Lines. In our Property business, both the severity and frequency of late reported claims was less than anticipated.
- Our personal auto product developed favorably \$40 million, almost evenly split between Direct and Agency.
- Our personal auto business incurred favorable case development, primarily in bodily injury due to a lower than anticipated severity.
- Our personal auto and Commercial Lines businesses incurred unfavorable IBNR loss reserve development, primarily due to a higher severity and frequency of late reported claims than anticipated for accident year 2015, due in part to storms in late December 2015, resulting in a greater number of claims being reported in January 2016 than anticipated.
- In addition, our Commercial Lines business experienced unfavorable case reserve development for accident year 2014, primarily due to a higher severity than anticipated on our largest limits, while case reserve development for accident years 2015 and 2013 and prior was favorable.

Incurred and Paid Claims Development by Accident Year

The tables below present our incurred and paid claims development by accident year for the last five years, which generally represents the maximum development period for claims in any of our segments. The tables below include inception-to-date information for companies acquired and wholly exclude companies disposed of, rather than including information from the date of acquisition, or until the date of disposition. We believe the most meaningful presentation of claims development is through the retrospective approach by presenting all relevant historical information for all periods presented.

We have elected to present our incurred and paid claims development consistent with our GAAP reportable segments (see *Note 10 – Segment Information* for a discussion of our segment reporting), with a further disaggregation of our Personal Lines and Commercial Lines claims development between liability and physical damage, since the loss patterns are significantly different between them. The other business primarily includes reserves for our run-off products, which are not considered material, and, therefore, we are not including separate claims development tables.

The following tables show incurred and paid claims development, net of reinsurance, by accident year. Only 2018 is audited; all prior years are considered required supplementary information and, therefore, are unaudited. Expected development on our case reserves is excluded from the IBNR reserves on our vehicle businesses, as discussed above. For the Property business, the IBNR reserves include expected case development based on the methodology used in establishing the case reserves for that segment. The cumulative number of incurred claims are based on accident coverages (e.g., bodily injury, collision, comprehensive, personal injury protection, property damage) related to opened claims. Coverage counts related to claims closed without payment are excluded from the cumulative number of incurred claims.

Personal Lines – Agency – Liability

(\$ in millions)

Incurred Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance						As of December 31, 2018	
Accident Year	For the years ended December 31,					Total of IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Incurred Claim Counts
	2014 ¹	2015 ¹	2016 ¹	2017 ¹	2018		
2014	\$3,702.1	\$3,627.7	\$3,633.2	\$3,654.4	\$ 3,611.2	\$ 0	701,788
2015		3,774.9	3,773.8	3,798.8	3,815.6	55.9	704,995
2016			4,082.9	4,130.0	4,152.0	69.5	740,325
2017				4,474.8	4,485.8	188.6	777,415
2018					5,141.8	802.8	839,051
				Total	\$21,206.4		
Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance							
Accident Year	For the years ended December 31,						
	2014 ¹	2015 ¹	2016 ¹	2017 ¹	2018		
2014	\$1,809.0	\$2,868.1	\$3,284.5	\$3,482.3	\$ 3,559.1		
2015		1,793.1	2,976.0	3,416.5	3,623.3		
2016			1,941.6	3,231.5	3,723.1		
2017				2,074.0	3,478.5		
2018					2,378.0		
				Total	\$16,762.0		
				All outstanding liabilities before 2014, net of reinsurance ¹	64.6		
				Liabilities for claims and claim adjustment expenses, net of reinsurance	\$ 4,509.0		

¹Required supplementary information (unaudited)

Personal Lines – Agency – Physical Damage

(\$ in millions)

Incurred Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance						As of December 31, 2018	
Accident Year	For the years ended December 31,					Total of IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Incurred Claim Counts
	2014 ¹	2015 ¹	2016 ¹	2017 ¹	2018		
2014	\$2,107.5	\$2,090.3	\$2,089.9	\$2,088.0	\$ 2,091.6	\$ 0	1,374,721
2015		2,136.8	2,137.2	2,134.4	2,131.5	(3.8)	1,336,486
2016			2,423.4	2,398.9	2,401.8	(2.8)	1,398,842
2017				2,635.5	2,638.5	(11.8)	1,513,912
2018					2,819.0	(120.8)	1,677,878
				Total	\$12,082.4		
Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance							
Accident Year	For the years ended December 31,						
	2014 ¹	2015 ¹	2016 ¹	2017 ¹	2018		
2014	\$2,078.8	\$2,091.6	\$2,090.6	\$2,090.7	\$ 2,091.0		
2015		2,106.2	2,138.1	2,134.4	2,134.1		
2016			2,391.0	2,406.9	2,402.1		
2017				2,599.8	2,643.2		
2018					2,769.1		
				Total	\$12,039.5		
				All outstanding liabilities before 2014, net of reinsurance ¹	0.4		
				Liabilities for claims and claim adjustment expenses, net of reinsurance	\$ 43.3		

¹Required supplementary information (unaudited)

Personal Lines – Direct – Liability

(\$ in millions)

Accident Year	Incurred Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance					As of December 31, 2018	
	For the years ended December 31,					Total of IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Incurred Claim Counts
	2014 ¹	2015 ¹	2016 ¹	2017 ¹	2018		
2014	\$2,946.8	\$2,887.4	\$2,898.1	\$2,913.6	\$ 2,884.1	\$ 0	592,145
2015		3,330.5	3,328.3	3,354.2	3,399.3	44.3	659,289
2016			3,819.0	3,843.9	3,871.2	58.9	735,483
2017				4,209.5	4,209.9	167.0	770,740
2018					4,904.8	725.4	856,025
				Total	\$19,269.3		

Accident Year	Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance				
	For the years ended December 31,				
	2014 ¹	2015 ¹	2016 ¹	2017 ¹	2018
2014	\$1,413.0	\$2,278.0	\$2,624.2	\$2,780.0	\$ 2,844.0
2015		1,545.2	2,615.0	3,021.0	3,238.2
2016			1,780.6	2,991.1	3,476.9
2017				1,912.6	3,255.2
2018					2,235.1
				Total	\$15,049.4
				All outstanding liabilities before 2014, net of reinsurance ¹	38.7
				Liabilities for claims and claim adjustment expenses, net of reinsurance	\$ 4,258.6

¹Required supplementary information (unaudited)

Personal Lines – Direct – Physical Damage

(\$ in millions)

Accident Year	Incurred Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance					As of December 31, 2018	
	For the years ended December 31,					Total of IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Incurred Claim Counts
	2014 ¹	2015 ¹	2016 ¹	2017 ¹	2018		
2014	\$1,889.3	\$1,862.2	\$1,861.7	\$1,859.2	\$ 1,861.7	\$ 0	1,471,084
2015		2,110.7	2,097.7	2,093.5	2,090.8	(4.0)	1,540,090
2016			2,521.0	2,475.4	2,477.7	(3.8)	1,676,008
2017				2,750.6	2,743.7	(16.1)	1,790,360
2018					3,202.3	(175.4)	2,065,458
				Total	\$12,376.2		

Accident Year	Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance				
	For the years ended December 31,				
	2014 ¹	2015 ¹	2016 ¹	2017 ¹	2018
2014	\$1,874.6	\$1,864.1	\$1,862.7	\$1,861.8	\$ 1,861.4
2015		2,094.7	2,100.1	2,094.7	2,093.7
2016			2,505.0	2,485.8	2,479.3
2017				2,742.1	2,753.5
2018					3,170.0
				Total	\$12,357.9
				All outstanding liabilities before 2014, net of reinsurance ¹	0.1
				Liabilities for claims and claim adjustment expenses, net of reinsurance	\$ 18.4

¹Required supplementary information (unaudited)

Commercial Lines – Liability

(\$ in millions)

Incurred Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance						As of December 31, 2018	
Accident Year	For the years ended December 31,					Total of IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Incurred Claim Counts
	2014 ¹	2015 ¹	2016 ¹	2017 ¹	2018		
2014	\$822.5	\$795.4	\$ 820.3	\$ 823.0	\$ 813.5	\$ 0	74,682
2015		897.6	911.1	914.8	899.7	14.0	77,839
2016			1,185.8	1,204.8	1,231.1	26.4	92,730
2017				1,374.1	1,366.6	70.9	96,905
2018					1,700.8	292.5	108,792
				Total	\$6,011.7		

Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance					
Accident Year	For the years ended December 31,				
	2014 ¹	2015 ¹	2016 ¹	2017 ¹	2018
2014	\$234.0	\$438.7	\$ 610.0	\$ 715.3	\$ 771.0
2015		238.4	501.5	675.0	786.3
2016			298.6	639.9	886.0
2017				325.8	712.9
2018					382.7
				Total	\$3,538.9
				All outstanding liabilities before 2014, net of reinsurance ¹	31.4
				Liabilities for claims and claim adjustment expenses, net of reinsurance	\$2,504.2

¹Required supplementary information (unaudited)

Commercial Lines – Physical Damage

(\$ in millions)

Incurred Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance						As of December 31, 2018	
Accident Year	For the years ended December 31,					Total of IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Incurred Claim Counts
	2014 ¹	2015 ¹	2016 ¹	2017 ¹	2018		
2014	\$240.3	\$239.7	\$238.6	\$238.0	\$ 238.4	\$ 0	59,630
2015		274.4	274.1	273.5	272.4	(0.6)	62,599
2016			379.6	379.8	378.2	(0.2)	74,180
2017				415.4	412.1	(2.0)	77,170
2018					475.0	(10.0)	83,350
				Total	\$1,776.1		

Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance					
Accident Year	For the years ended December 31,				
	2014 ¹	2015 ¹	2016 ¹	2017 ¹	2018
2014	\$224.6	\$238.3	\$237.7	\$237.9	\$ 238.2
2015		248.5	271.9	272.0	272.2
2016			336.7	376.9	376.8
2017				369.0	409.4
2018					426.0
				Total	\$1,722.6
				All outstanding liabilities before 2014, net of reinsurance ¹	0.4
				Liabilities for claims and claim adjustment expenses, net of reinsurance	\$ 53.9

¹Required supplementary information (unaudited)

Property Business

(\$ in millions)

Incurred Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance						As of December 31, 2018	
Accident Year	For the years ended December 31,					Total of IBNR Liabilities Plus Expected Development on Reported Claims	Cumulative Number of Incurred Claim Counts
	2014 ¹	2015 ¹	2016 ¹	2017 ¹	2018		
2014	\$415.5	\$389.1	\$379.7	\$376.3	\$ 375.3	\$ 2.5	40,992
2015		460.0	416.5	403.6	398.8	3.8	41,980
2016			568.6	541.2	537.1	9.6	53,582
2017				672.8	680.9	11.5	71,153
2018					839.0	159.8	58,135
				Total	<u>\$2,831.1</u>		

Cumulative Paid Claims and Allocated Claim Adjustment Expenses, Net of Reinsurance					
Accident Year	For the years ended December 31,				
	2014 ¹	2015 ¹	2016 ¹	2017 ¹	2018
2014	\$269.2	\$351.5	\$365.9	\$370.3	\$ 371.9
2015		280.3	372.8	383.5	390.1
2016			415.2	498.2	516.9
2017				506.7	647.1
2018					595.9
				Total	<u>\$2,521.9</u>
				All outstanding liabilities before 2014, net of reinsurance ¹	<u>5.5</u>
				Liabilities for claims and claim adjustment expenses, net of reinsurance	<u>\$ 314.7</u>

¹Required supplementary information (unaudited)

The following table reconciles the net incurred and paid claims development tables to the liability for claims and claim adjustment expenses:

(millions)	2018	2017
Net outstanding liabilities		
Personal Lines		
Agency, Liability	\$ 4,509.0	\$ 3,955.5
Agency, Physical Damage	43.3	26.2
Direct, Liability	4,258.6	3,685.1
Direct, Physical Damage	18.4	(5.6)
Commercial Lines		
Liability	2,504.2	2,027.4
Physical Damage	53.9	51.7
Property	314.7	245.8
Other business	42.9	43.7
<hr/>		
Liabilities for unpaid claims and claim adjustment expenses, net of reinsurance	11,745.0	10,029.8
<hr/>		
Reinsurance recoverable on unpaid claims		
Personal Lines		
Agency, Liability	836.8	769.8
Agency, Physical Damage	0	0
Direct, Liability	1,070.4	838.1
Direct, Physical Damage	0	0
Commercial Lines		
Liability	287.4	105.1
Physical Damage	0	0.1
Property	145.4	243.8
Other business	222.1	200.9
<hr/>		
Total reinsurance recoverable on unpaid claims	2,562.1	2,157.8
<hr/>		
Unallocated claims adjustment expense related to:		
Liabilities for unpaid claims and claim adjustment expenses, net of reinsurance	1,083.1	887.0
Reinsurance recoverable on unpaid claims	10.6	12.3
<hr/>		
Total gross liability for unpaid claims and claim adjustment expense	\$15,400.8	\$13,086.9

The following table shows the average historical claims duration as of December 31, 2018:

(Required Supplementary Information – Unaudited)

Average Annual Percentage Payout of Incurred Claims by Age, Net of Reinsurance	Years				
	1	2	3	4	5
Personal Lines					
Agency, Liability	47.1%	30.7%	11.6%	5.4%	2.1%
Agency, Physical Damage	98.9	1.1	(0.1)	0	0
Direct, Liability	46.1	31.2	12.2	5.9	2.2
Direct, Physical Damage	100.1	(0.1)	(0.2)	0	0
Commercial Lines					
Liability	24.6	27.7	20.1	12.6	6.8
Physical Damage	90.4	9.0	(0.1)	0.1	0.1
Property	73.0	20.0	3.3	1.4	0.4

7. REINSURANCE

The effect of reinsurance on premiums written and earned for the years ended December 31, was as follows:

(millions)	2018		2017		2016	
	Written	Earned	Written	Earned	Written	Earned
Direct premiums	\$33,753.1	\$31,970.2	\$27,860.7	\$26,425.7	\$23,941.9	\$23,111.2
Ceded premiums:						
Regulated plans	(596.4)	(557.5)	(505.9)	(479.6)	(439.4)	(425.1)
Non-Regulated plans	(546.8)	(479.4)	(222.7)	(216.2)	(149.0)	(212.1)
Total ceded premiums	(1,143.2)	(1,036.9)	(728.6)	(695.8)	(588.4)	(637.2)
Net premiums	\$32,609.9	\$30,933.3	\$27,132.1	\$25,729.9	\$23,353.5	\$22,474.0

The Regulated plans are federal or state run plans and primarily include the following:

- Federal reinsurance plan
 - National Flood Insurance Program (NFIP)
- State-provided reinsurance facilities
 - Michigan Catastrophic Claims Association (MCCA)
 - North Carolina Reinsurance Facility (NCRF)
 - Florida Hurricane Catastrophe Fund (FHCF)
- State-mandated involuntary plans
 - Commercial Automobile Insurance Procedures/Plans (CAIP)

The Non-Regulated plans are comprised of voluntary external reinsurance contracts. These include amounts ceded on our Commercial Lines business primarily related to transportation network company (TNC) business under quota-share reinsurance agreements and amounts ceded on our Property business under catastrophic reinsurance agreements and, effective January 1, 2017, aggregate stop-loss reinsurance agreements. During 2018, we expanded our TNC business from one state in 2016 and 2017 to four states at December 31, 2018.

Our prepaid reinsurance premiums and reinsurance recoverables were comprised of the following at December 31:

(\$ in millions)	Prepaid Reinsurance Premiums				Reinsurance Recoverables			
	2018		2017		2018		2017	
Regulated plans:								
MCCA	\$ 55.3	18%	\$ 44.3	22%	\$1,903.9	71%	\$1,611.5	71%
CAIP	72.9	24	50.0	25	254.7	9	218.0	10
NCRF	34.0	11	31.5	15	78.1	3	74.2	3
NFIP	55.9	18	53.8	26	27.8	1	148.8	7
Other	0.6	0	0.3	0	21.4	1	8.2	0
Total Regulated plans	218.7	71	179.9	88	2,285.9	85	2,060.7	91
Non-Regulated plans:								
Commercial Lines	79.2	25	14.3	7	254.2	10	63.4	3
Property	11.8	4	9.1	5	147.7	5	138.6	6
Other	0	0	0	0	8.3	0	10.7	0
Total Non-Regulated plans	91.0	29	23.4	12	410.2	15	212.7	9
Total	\$309.7	100%	\$203.3	100%	\$2,696.1	100%	\$2,273.4	100%

Reinsurance contracts do not relieve us from our obligations to policyholders. Failure of reinsurers to honor their obligations could result in losses to us. Our exposure to losses from the failure of Regulated plans is minimal, since these plans are funded by the federal government or by mechanisms supported by insurance companies in applicable states. We evaluate the financial condition of our other reinsurers and monitor concentrations of credit risk to minimize our exposure to significant losses from reinsurer insolvencies.

8. STATUTORY FINANCIAL INFORMATION

Consolidated statutory surplus was \$11,731.2 million and \$9,664.4 million at December 31, 2018, and 2017, respectively. Statutory net income was \$2,916.9 million, \$1,416.2 million, and \$1,022.3 million for the years ended December 31, 2018, 2017, and 2016, respectively.

At December 31, 2018, \$955.0 million of consolidated statutory surplus represented net admitted assets of our insurance subsidiaries and affiliates that are required to meet minimum statutory surplus requirements in such entities' states of domicile. The companies may be licensed in states other than their states of domicile, which may have higher minimum statutory surplus requirements. Generally, the net admitted assets of insurance companies that, subject to other applicable insurance laws and regulations, are available for transfer to the parent company cannot include the net admitted assets required to meet the minimum statutory surplus requirements of the states where the companies are licensed.

During 2018, the insurance subsidiaries paid aggregate cash dividends of \$938.9 million to their parent company. Based on the dividend laws in effect at December 31, 2018, the insurance subsidiaries could pay aggregate dividends of \$2,887.0 million in 2019 without prior approval from regulatory authorities, provided the dividend payments are not made within 12 months of previous dividends paid by the applicable subsidiary.

9. EMPLOYEE BENEFIT PLANS

Beginning July 1, 2017, employees of ARX and its subsidiaries were included in the benefit plans described below. References in this Note 9 to Progressive refer to The Progressive Corporation and its subsidiaries, including ARX and its subsidiaries. Prior to July 1, 2017, ARX maintained employee benefit plans that were separate from the plans that covered employees of The Progressive Corporation's other subsidiaries.

Retirement Plans Progressive has a defined contribution pension plan (401(k) Plan) that covers employees who have been employed with the company for at least 30 days. Under Progressive's 401(k) Plan, we match up to a maximum of 6% of an employee's eligible compensation contributed to the plan. Employee and company matching contributions are invested, at the direction of the employee, in a number of investment options available under the plan, including various mutual funds, a self-directed brokerage option, and a Progressive common stock fund. Progressive's common stock fund is an employee stock ownership program (ESOP) within the 401(k) Plan. At December 31, 2018, the ESOP held 24.1 million of our common shares, all of which are included in shares outstanding. Dividends on these shares are reinvested in common shares or paid out in cash, at the election of the participant, and the related tax benefit is recorded as part of our tax provision. Matching contributions to these plans for the years ended December 31, 2018, 2017, and 2016 were \$106.8 million, \$97.3 million, and \$86.8 million.

Postemployment Benefits Progressive provides various postemployment benefits to former or inactive employees who meet eligibility requirements, and to their beneficiaries and covered dependents. Postemployment benefits include salary continuation and disability-related benefits, including workers' compensation and, if elected, continuation of health-care benefits for specified limited periods. The liability for these benefits was \$20.2 million and \$19.5 million at December 31, 2018 and 2017, respectively.

Incentive Compensation Plans – Employees Progressive's incentive compensation programs include both non-equity incentive plans (cash) and equity incentive plans. Progressive's cash incentive compensation included an annual cash incentive program for a limited number of senior executives and Progressive's Gainsharing program for other employees; the structures of these programs were similar in nature. Progressive's equity incentive compensation plans provide for the granting of restricted stock unit awards to key members of management.

In addition, ARX provides periodic cash bonuses to its employees and, prior to 2017, annual cash bonuses to its employees. ARX also has an equity compensation plan under which it has granted stock option awards, exercisable for shares of ARX common stock, to certain of its key employees. These stock option awards include both nonqualified and incentive stock options; all such stock options are subject to the put and call provisions of the ARX stockholders' agreement (see Note 15 – *Redeemable Noncontrolling Interest* for further discussion). As a result of these provisions, and the determination that the ultimate settlement of these awards would be in cash, the ARX stock options are treated as liability awards for accounting purposes.

The amounts charged to income for Progressive and ARX incentive compensation plans for the years ended December 31, were:

(millions)	2018		2017		2016	
	Pretax	After Tax	Pretax	After Tax	Pretax	After Tax
Non-equity incentive plans – cash	\$539.5	\$426.2	\$461.3	\$299.8	\$386.8	\$251.4
Equity incentive plans:						
Equity awards	76.2	60.2	92.9	60.4	80.9	52.6
Liability awards	1.0	0.8	2.5	1.6	4.3	2.8

The increase in 2017 expense for the equity awards, compared to 2018 and 2016, primarily reflected an increase in management's expectation of the percentage of certain performance-based awards that will ultimately vest (discussed below). The after-tax amounts are determined using the corporate federal tax rate of 21% for 2018 and 35% for 2017 and 2016.

Progressive's 2015 Equity Incentive Plan, which provide for the granting of equity-based compensation to officers and other key employees, currently has authorized awards for up to 17.0 million shares, which includes 4.0 million shares transferred from the 2010 Equity Incentive Plan in accordance with the terms of the 2015 Equity Incentive Plan. No awards have been granted under the 2010 Equity Incentive Plan since January 2016 and none will be granted in the future.

The restricted equity awards are issued as either time-based or performance-based awards. All restricted stock units are settled at or after vesting in Progressive common shares from existing treasury shares on a one-to-one basis. The time-based awards vest in equal installments upon the lapse of specified periods of time, typically three, four, and five years.

The performance-based awards were granted to approximately 50 Progressive executives and senior managers in 2018 in addition to their time-based awards to provide additional incentive to achieve pre-established profitability and growth targets, relative investment performance, or specific growth measures.

Vesting of performance-based awards is contingent upon the achievement of predetermined performance goals within specified time periods. The targets for the performance-based awards, as well as the number of units that ultimately may vest, vary by grant. All performance-based awards include a specified number of units that will vest if performance meets a specified target and minimum performance goals. If at least the minimum performance goals are achieved, the range at which an award can vest is determined by the type of measurement goals included in the award, as follows:

Performance Measurement	Year(s) of Grant	Vesting range (as a percentage of target)
Growth of our personal auto and commercial auto businesses and homeowners multi-peril business, each compared to its respective market	2018	0-250%
Growth of our personal auto and commercial auto businesses, compared to the combined personal and commercial auto market	2013-2017	0-250%
Investment results relative to peer group	2013-2018	0-200%
Growth in percentage of auto policies bundled with other specified types of policies	2015	0% or 100-200%
Unit growth in a specified customer segment	2016-2017	0% or 85-150%

Generally, time-based and performance-based equity awards are expensed pro rata over their respective vesting periods based on the market value of the awards at the time of grant. Performance-based equity awards that contain variable vesting criteria are expensed based on management's expectation of the percentage of the award, if any, that will ultimately vest. These estimates can change periodically throughout the measurement period.

A summary of all employee restricted equity award activity during the years ended December 31, follows:

Restricted Equity Awards	2018		2017		2016	
	Number of Shares ¹	Weighted Average Grant Date Fair Value	Number of Shares ¹	Weighted Average Grant Date Fair Value	Number of Shares ¹	Weighted Average Grant Date Fair Value
Beginning of year	5,858,848	\$30.47	6,951,373	\$26.18	7,725,227	\$23.37
Add (deduct):						
Granted ²	1,876,109	45.55	2,383,475	32.01	1,870,660	31.54
Vested	(2,811,070)	26.41	(3,220,671)	22.53	(2,422,700)	21.50
Forfeited	(67,531)	36.10	(255,329)	28.03	(221,814)	24.64
End of year ^{3,4}	4,856,356	\$38.56	5,858,848	\$30.47	6,951,373	\$26.18

¹Includes restricted stock units; Upon vesting, all units will be converted on a one-for-one basis into Progressive common shares funded from existing treasury shares. All performance-based awards are included at their target amounts.

²We reinvest dividend equivalents on restricted stock units. For 2018, 2017, and 2016, the number of units "granted" shown in the table above includes 144,668, 157,396, and 165,045 of dividend equivalent units, respectively, at a weighted average grant date fair value of \$0, since the dividends were factored into the grant date fair value of the original grant.

³At December 31, 2018, the number of shares included 1,017,520 performance-based units at their target amounts. We expect 2,447,409 units to vest based upon our current estimates of the likelihood of achieving the pre-determined performance goals applicable to each award.

⁴At December 31, 2018, the total unrecognized compensation cost related to unvested equity awards was \$100.6 million, which includes performance-based awards at their currently estimated vesting value. This compensation expense will be recognized into the income statement over the weighted average vesting period of 2.2 years.

The aggregate fair value of the restricted equity awards that vested during the years ended December 31, 2018, 2017, and 2016, was \$162.7 million, \$130.5 million, and \$77.0 million, respectively, based on the actual stock price on the applicable vesting date.

As a result of the put and call rights described in *Note 15 – Redeemable Noncontrolling Interest*, all outstanding stock options awarded to ARX employees prior to April 1, 2015, are treated as liability awards for accounting purposes; however, the awards maintain the specific features per the original award agreements. The value of each option is based upon our good faith estimate of the fair market value as of the end of the reporting period and the pro rata expense is recognized.

A summary of all ARX employee stock option activity during the years ended December 31, follows:

Options Outstanding	2018		2017		2016	
	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price
Beginning of year	22,550	\$564.60	24,995	\$526.46	24,995	\$526.46
Add (deduct):						
Exercised ¹	(6,483)	506.26	(2,445)	174.65	0	0
End of year	16,067	\$588.15	22,550	\$564.60	24,995	\$526.46
Exercisable, end of year	13,967	\$562.17	17,950	\$517.75	16,995	\$438.77

¹At the time of exercise in 2018 and 2017, the value earned by the option holders was \$6.2 million and \$2.9 million, respectively.

Non-Vested Options Outstanding	2018		2017		2016	
	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price
Beginning of year	4,600	\$747.45	8,000	\$712.74	12,000	\$677.81
Add (deduct):						
Vested	(2,500)	736.12	(3,400)	665.79	(4,000)	607.95
End of year ¹	2,100	\$760.93	4,600	\$747.45	8,000	\$712.74

¹At December 31, 2018, 2017, and 2016, the remaining unrecognized compensation cost related to unvested options was \$0.2 million, \$0.7 million, and \$1.6 million, respectively, and the remaining weighted average vesting period on the unvested awards was 0.53 years, 1.01 years, and 1.36 years, respectively.

Incentive Compensation Plans – Directors Progressive's 2003 Directors Equity Incentive Plan, has expired and no new awards may be made under this plan; in 2017, shareholders approved the Progressive 2017 Directors Equity Incentive Plan and it provides for the granting of equity-based awards, including restricted stock awards, to non-employee directors, and originally authorized awards for up to 0.5 million shares.

The Progressive Corporation permits each non-employee director to indicate a preference to receive either 100% of their compensation in the form of a restricted stock award or 60% in the form of a restricted stock award and 40% in the form of cash. If the director does not state a preference, it is presumed that he or she preferred to receive 100% of their compensation in the form of restricted stock. After considering such preferences, the Compensation Committee of the Board of Directors determines the awards (restricted stock, or restricted stock and cash) for each non-employee director.

The restricted stock awards are issued as time-based awards. The vesting period (i.e., requisite service period) is typically 11 months from the date of each grant. To the extent a director is newly appointed during the year, or a director's committee assignments change, the vesting period may be shorter. Both the restricted stock awards and cash, if elected, are expensed pro rata over their respective vesting periods based on the market value of the awards at the time of grant.

A summary of all directors' restricted stock activity during the years ended December 31, follows:

	2018		2017		2016	
	Number of Shares	Weighted Average Grant Date Fair Value	Number of Shares	Weighted Average Grant Date Fair Value	Number of Shares	Weighted Average Grant Date Fair Value
Restricted Stock						
Beginning of year	53,284	\$40.54	55,839	\$33.24	89,427	\$27.23
Add (deduct):						
Granted	41,706	62.23	53,284	40.54	55,839	33.24
Vested	(53,284)	40.54	(55,839)	33.24	(89,427)	27.23
End of year ¹	41,706	\$62.23	53,284	\$40.54	55,839	\$33.24

¹At December 31, 2018, the remaining unrecognized compensation cost related to restricted stock awards was \$0.9 million.

The aggregate fair value of the restricted stock vested, during the years ended December 31, 2018, 2017, and 2016, was \$3.2 million, \$2.2 million, and \$3.0 million, respectively, based on the actual stock price at time of vesting.

Deferred Compensation The Progressive Corporation Executive Deferred Compensation Plan (Deferral Plan) permits eligible Progressive executives to defer receipt of some or all of their annual incentive payments and all of their annual equity awards. Deferred cash compensation is deemed invested in one or more investment funds, including Progressive common shares, offered under the Deferral Plan and elected by the participant. All Deferral Plan distributions attributable to deferred cash compensation will be paid in cash.

For all equity awards granted in or after March 2005, and deferred pursuant to the Deferral Plan, the deferred amounts are deemed invested in our common shares and are ineligible for transfer to other investment funds in the Deferral Plan; distributions of these deferred awards will be made in Progressive common shares. For all restricted stock awards granted prior to that date, the deferred amounts are eligible to be transferred to any of the investment funds in the Deferral Plan; distributions of these deferred awards will be made in cash. We reserved 11.1 million of our common shares for issuance under the Deferral Plan.

An irrevocable grantor trust has been established to provide a source of funds to assist us in meeting our liabilities under the Deferral Plan. The Deferral Plan Irrevocable Grantor Trust account held the following assets at December 31:

(millions)	2018	2017
Progressive common shares ¹	\$114.7	\$128.2
Other investment funds ²	124.0	167.0
Total	\$238.7	\$295.2

¹Included 3.6 million and 4.4 million common shares as of December 31, 2018 and 2017, respectively, to be distributed in common shares.

²Amount is included in other assets on the balance sheet.

10. SEGMENT INFORMATION

We write personal and commercial auto insurance, residential property insurance, and other specialty property-casualty insurance and related services. Our Personal Lines segment writes insurance for personal autos and recreational vehicles (our special lines products). The Personal Lines segment is comprised of both the Agency and Direct businesses. The Agency business includes business written by our network of more than 35,000 independent insurance agencies, including brokerages in New York and California, and strategic alliance business relationships (other insurance companies, financial institutions, and national agencies). The Direct business includes business written directly by us online, by phone, or on mobile devices. We operate our personal auto businesses throughout the United States.

Our Commercial Lines segment writes primary liability, physical damage, and other auto-related insurance for automobiles and trucks owned and/or operated predominantly by small businesses in the business auto, for-hire transportation, contractor, for-hire specialty, tow, and for-hire livery markets. This segment operates throughout the United States and is distributed through both the independent agency and direct channels.

Our Property segment writes residential property insurance for homeowners, other property owners, and renters through both the independent agency and direct channel, and writes flood insurance, through the "Write Your Own" program for the National Flood Insurance Program, through the agency channel. Our Property segment operates throughout the majority of the United States.

Our other indemnity businesses manage our run-off businesses.

Our service businesses provide insurance-related services, including processing CAIP business, and serving as an agent for homeowners, general liability, and workers' compensation insurance, among other products, through our programs with ASI and unaffiliated insurance companies.

All segment revenues are generated from external customers and we do not have a reliance on any major customer.

We evaluate profitability based on pretax underwriting profit (loss) for the Personal Lines, Commercial Lines, and Property segments and for the other indemnity businesses. Pretax underwriting profit (loss) is calculated as net premiums earned plus fees and other revenues, less: (i) losses and loss adjustment expenses; (ii) policy acquisition costs; and (iii) other underwriting expenses. Service business pretax profit (loss) is the difference between service business revenues and service business expenses.

Expense allocations are based on certain assumptions and estimates primarily related to revenue and volume; stated segment operating results would change if different methods were applied. We do not allocate assets or income taxes to operating segments. In addition, we do not separately identify depreciation expense by segment, and such allocation would be impractical. Companywide depreciation expense was \$190.4 million in 2018, \$169.9 million in 2017, and \$137.4 million in 2016. The accounting policies of the operating segments are the same as those described in *Note 1 – Reporting and Accounting Policies*.

Following are the operating results for the years ended December 31:

(millions)	2018		2017		2016	
	Revenues	Pretax Profit (Loss)	Revenues	Pretax Profit (Loss)	Revenues	Pretax Profit (Loss)
Personal Lines						
Agency	\$13,017.2	\$1,435.7	\$11,177.6	\$ 839.6	\$ 9,791.7	\$ 492.8
Direct	13,017.5	1,088.5	10,769.6	683.7	9,396.5	412.2
Total Personal Lines ¹	26,034.7	2,524.2	21,947.2	1,523.3	19,188.2	905.0
Commercial Lines	3,610.9	478.6	2,793.9	214.1	2,421.3	155.2
Property ²	1,287.7	(88.7)	988.8	(50.3)	864.5	32.5
Other indemnity	0	0.9	0	(0.2)	0	(1.6)
Total underwriting operations	30,933.3	2,915.0	25,729.9	1,686.9	22,474.0	1,091.1
Fees and other revenues ³	472.2	NA	370.6	NA	332.5	NA
Service businesses	158.5	24.4	126.8	17.3	103.3	11.3
Investments ⁴	415.0	390.7	612.7	588.8	530.0	507.6
Other gains (losses)	0	0	(1.0)	(1.0)	1.6	1.6
Interest expense	NA	(166.5)	NA	(153.1)	NA	(140.9)
Consolidated total	\$31,979.0	\$3,163.6	\$26,839.0	\$2,138.9	\$23,441.4	\$1,470.7

NA = Not Applicable

¹Personal auto insurance accounted for 94% of the total Personal Lines segment net premiums earned in 2018, compared to 93% in 2017 and 92% in 2016; insurance for our special lines products (e.g., motorcycles, ATVs, RVs, watercraft, and snowmobiles) accounted for the balance of the Personal Lines net premiums earned.

²During 2018, 2017, and 2016, pretax profit (loss) includes \$72.0 million, \$66.2 million, and \$62.1 million, respectively, of amortization expense predominately associated with the acquisition of a controlling interest in ARX. Although this expense is included in our Property segment, it is not reported in the consolidated results of ARX and, therefore, does not affect the value of net income attributable to noncontrolling interest.

³Pretax profit (loss) for fees and other revenues are allocated to operating segments.

⁴Revenues represent recurring investment income and total net realized gains (losses) on securities; pretax profit is net of investment expenses.

Our management uses underwriting margin and combined ratio as primary measures of underwriting profitability. Underwriting profitability is calculated by subtracting losses and loss adjustment expenses, policy acquisition costs, and other underwriting expenses from the total of net premiums earned and fees and other revenues. The underwriting margin is the pretax underwriting profit (loss) expressed as a percentage of net premiums earned (i.e., revenues from underwriting operations). Combined ratio is the complement of the underwriting margin. Following are the underwriting margins and combined ratios for our underwriting operations for the years ended December 31:

	2018		2017		2016	
	Underwriting Margin	Combined Ratio	Underwriting Margin	Combined Ratio	Underwriting Margin	Combined Ratio
Personal Lines						
Agency	11.0%	89.0	7.5%	92.5	5.0%	95.0
Direct	8.4	91.6	6.3	93.7	4.4	95.6
Total Personal Lines	9.7	90.3	6.9	93.1	4.7	95.3
Commercial Lines	13.3	86.7	7.7	92.3	6.4	93.6
Property ¹	(6.9)	106.9	(5.1)	105.1	3.8	96.2
Total underwriting operations	9.4	90.6	6.6	93.4	4.9	95.1

¹Included in 2018, 2017, and 2016, are 5.6 points, 6.7 points, and 7.2 points, respectively, of amortization expense predominately associated with the acquisition of a controlling interest in ARX.

11. OTHER COMPREHENSIVE INCOME (LOSS)

The components of other comprehensive income (loss), including reclassification adjustments by income statement line item, for the years ended December 31, were as follows:

(millions)	Components of Changes in Accumulated Other Comprehensive Income (after tax)						
	Pretax total accumulated other comprehensive income (loss)	Total tax (provision) benefit	After tax total accumulated other comprehensive income (loss)	Total net unrealized gains (losses) on securities	Net unrealized gains (losses) on forecasted transactions	Foreign currency translation adjustment	(Income) loss attributable to NCI
Balance at December 31, 2017	\$ 1,977.8	\$(695.6)	\$ 1,282.2	\$ 1,295.0	\$(14.8)	\$0	\$ 2.0
Cumulative effect adjustment ¹	(2,006.0)	705.8	(1,300.2)	(1,300.2)	0	0	0
Reclassification of disproportionate amounts ²	(4.3)	(3.4)	(7.7)	(1.1)	(3.2)	0	(3.4)
Adjusted balance at December 31, 2017	(32.5)	6.8	(25.7)	(6.3)	(18.0)	0	(1.4)
Other comprehensive income (loss) before reclassifications:							
Investment securities	(224.1)	47.0	(177.1)	(177.1)	0	0	0
Net non-credit related OTTI losses, adjusted for valuation changes	0	0	0	0	0	0	0
Forecasted transactions	0	0	0	0	0	0	0
Foreign currency translation adjustment	0	0	0	0	0	0	0
(Income) loss attributable to noncontrolling interest (NCI)	4.3	(1.0)	3.3	0	0	0	3.3
Total other comprehensive income (loss) before reclassifications	(219.8)	46.0	(173.8)	(177.1)	0	0	3.3
Less: Reclassification adjustment for amounts realized in net income by income statement line item:							
Net impairment losses recognized in earnings	0	0	0	0	0	0	0
Net realized gains (losses) on securities	(98.3)	20.5	(77.8)	(77.8)	0	0	0
Other gains (losses)	0	0	0	0	0	0	0
Interest expense	(1.0)	0.2	(0.8)	0	(0.8)	0	0
Total reclassification adjustment for amounts realized in net income	(99.3)	20.7	(78.6)	(77.8)	(0.8)	0	0
Total other comprehensive income (loss)	(120.5)	25.3	(95.2)	(99.3)	0.8	0	3.3
Balance at December 31, 2018	\$ (153.0)	\$ 32.1	\$ (120.9)	\$ (105.6)	\$(17.2)	\$0	\$ 1.9

¹Reflects the fair value changes on equity securities as of December 31, 2017, which are reported as realized gains (losses) under the new accounting guidance. See *Note 1 – Reporting and Accounting Policies* for additional information.

²Reflects the effect of the change in the U.S. federal tax rate on our available-for-sale fixed-maturity securities and our hedges on forecasted transactions as of December 31, 2017 (see *Note 1 – Reporting and Accounting Policies* for additional information) and the adjustment to reflect the change in value on (income) loss attributable to NCI in conjunction with the “put” transaction (see *Note 15 – Redeemable Noncontrolling Interest* for additional information).

**Components of Changes in
Accumulated Other
Comprehensive Income (after tax)**

(millions)	Pretax total accumulated other comprehensive income (loss)	Total tax (provision) benefit	After tax total accumulated other comprehensive income (loss)	Total net unrealized gains (losses) on securities	Net unrealized gains (losses) on forecasted transactions	Foreign currency translation adjustment	(Income) loss attributable to NCI
Balance at December 31, 2016	\$1,439.5	\$(506.1)	\$ 933.4	\$ 939.6	\$ (9.4)	\$(1.1)	\$ 4.3
Other comprehensive income (loss) before reclassifications:							
Investment securities	636.9	(224.0)	412.9	412.9	0	0	0
Net non-credit related OTTI losses, adjusted for valuation changes	0	0	0	0	0	0	0
Forecasted transactions	(8.0)	2.8	(5.2)	0	(5.2)	0	0
Foreign currency translation adjustment	0.4	(0.1)	0.3	0	0	0.3	0
(Income) loss attributable to noncontrolling interest (NCI)	(3.5)	1.2	(2.3)	0	0	0	(2.3)
Total other comprehensive income (loss) before reclassifications	625.8	(220.1)	405.7	412.9	(5.2)	0.3	(2.3)
Less: Reclassification adjustment for amounts realized in net income by income statement line item:							
Net impairment losses recognized in earnings	(14.9)	5.3	(9.6)	(9.6)	0	0	0
Net realized gains (losses) on securities	103.3	(36.2)	67.1	67.1	0	0	0
Other gains (losses) ¹	(1.2)	0.4	(0.8)	0	0	(0.8)	0
Interest expense	0.3	(0.1)	0.2	0	0.2	0	0
Total reclassification adjustment for amounts realized in net income	87.5	(30.6)	56.9	57.5	0.2	(0.8)	0
Total other comprehensive income (loss)	538.3	(189.5)	348.8	355.4	(5.4)	1.1	(2.3)
Balance at December 31, 2017	\$1,977.8	\$(695.6)	\$1,282.2	\$1,295.0	\$(14.8)	\$ 0	\$ 2.0

¹During 2017, we ceased writing insurance in Australia resulting in a loss of \$1.2 million relating to the foreign currency translation adjustment. The loss is netted with other gains (losses) on our consolidated statements of comprehensive income for the year end December 31, 2017.

**Components of Changes in
Accumulated Other
Comprehensive Income (after tax)**

(millions)	Pretax total accumulated other comprehensive income (loss)	Total tax (provision) benefit	After tax total accumulated other comprehensive income (loss)	Total net unrealized gains (losses) on securities	Net unrealized gains (losses) on forecasted transactions	Foreign currency translation adjustment	(Income) loss attributable to NCI
Total at December 31, 2015	\$1,234.5	\$(434.1)	\$800.4	\$809.0	\$(8.2)	\$(1.5)	\$1.1
Other comprehensive income (loss) before reclassifications:							
Investment securities	320.5	(112.6)	207.9	207.9	0	0	0
Net non-credit related OTTI losses, adjusted for valuation changes	(0.1)	0.1	0	0	0	0	0
Forecasted transactions	0	0	0	0	0	0	0
Foreign currency translation adjustment	0.6	(0.2)	0.4	0	0	0.4	0
(Income) loss attributable to noncontrolling interest (NCI)	5.1	(1.9)	3.2	0	0	0	3.2
Total other comprehensive income (loss) before reclassifications	326.1	(114.6)	211.5	207.9	0	0.4	3.2
Less: Reclassification adjustment for amounts realized in net income by income statement line item:							
Net impairment losses recognized in earnings	(27.1)	9.5	(17.6)	(17.6)	0	0	0
Net realized gains (losses) on securities	146.3	(51.4)	94.9	94.9	0	0	0
Other gains (losses)	0	0	0	0	0	0	0
Interest expense	1.9	(0.7)	1.2	0	1.2	0	0
Total reclassification adjustment for amounts realized in net income	121.1	(42.6)	78.5	77.3	1.2	0	0
Total other comprehensive income (loss)	205.0	(72.0)	133.0	130.6	(1.2)	0.4	3.2
Total at December 31, 2016	\$1,439.5	\$(506.1)	\$933.4	\$939.6	\$(9.4)	\$(1.1)	\$4.3

In an effort to manage interest rate risk, we often enter into forecasted transactions on Progressive's debt issuances. We expect to reclassify \$1.0 million (pretax) into interest expense during the next 12 months, related to net unrealized losses on forecasted transactions (see *Note 4 – Debt* for further discussion).

12. LITIGATION

The Progressive Corporation and/or its insurance subsidiaries are named as defendants in various lawsuits arising out of claims made under insurance policies written by our insurance subsidiaries in the ordinary course of business. We consider all legal actions relating to such claims in establishing our loss and loss adjustment expense reserves.

In addition, The Progressive Corporation and/or its subsidiaries are named as defendants in a number of class action or individual lawsuits that challenge certain of the operations of the subsidiaries. Other insurance companies face many of these same issues.

We describe litigation contingencies for which a loss is probable. In addition, we establish accruals for these lawsuits when we can reasonably estimate potential loss exposure, which may include a range of loss, and we will disclose such amount

or range of loss if material. As to lawsuits for which the loss is considered probable but not estimable, we do not establish an accrual. Nevertheless, we continue to evaluate this pending litigation to determine if any losses not deemed probable and estimable become so, at which point we would establish an accrual at our best estimate of the loss or range of loss.

We also describe litigation contingencies for which a loss is reasonably possible (but not probable). When disclosing reasonably possible litigation contingencies, we will disclose the amount or range of possible loss, if we are able to make that determination and if material. We review all reasonably possible losses on an ongoing basis to determine whether the likelihood of incurring a loss has become probable, or whether the circumstances have changed such that we may now reasonably estimate a range of loss.

We may also be exposed to litigation contingencies that are remote. Remote litigation contingencies are those for which the likelihood of a loss is slight at period end. We do not disclose, or establish accruals for, remote litigation contingencies, but we evaluate these contingencies on an ongoing basis to determine whether the likelihood of a loss has increased.

Each year, certain of our pending litigation matters are brought to conclusion. For cases that have settled, but for which settlement is not complete, an accrual is established at our best estimate of the loss exposure. We regularly review these and other accruals to ensure they are adequate, and that there is not the possibility of material losses in excess of our accruals.

Settlements that are complete are fully reflected in our financial statements. The amounts accrued and/or paid for settlements during the periods presented were not material to our consolidated financial condition, cash flows, or results of operations.

The pending lawsuits summarized below are in various stages of development, and the outcomes are uncertain as of December 31, 2018. At period end, except to the extent an immaterial accrual has been established, we do not consider the losses from these pending cases to be both probable and estimable, and we are unable to estimate a range of loss at this time. It is not possible to determine loss exposure for a number of reasons, including, without limitation, one or more of the following: liability appears to be remote; putative class action lawsuits generally pose immaterial exposure until a class is actually certified, which, historically, has not been granted by courts in the vast majority of our cases in which class certification has been sought; class definitions are often indefinite and preclude detailed exposure analysis; and complaints rarely state an amount sought as relief, and when such amount is stated, it often is a function of pleading requirements and may be unrelated to the potential exposure.

We plan to contest these suits vigorously, but may pursue settlement negotiations in some cases, as we deem appropriate. In the event that any one or more of these cases results in a substantial judgment against, or settlement by, us or if our accruals (if any) prove to be inadequate, the resulting liability could have a material adverse effect on our consolidated financial condition, cash flows, and/or results of operations. Based on information currently known, we do not believe that the outcome of any pending cases described below will have a material impact on our consolidated financial condition, cash flows, and/or results of operations.

At December 31, 2018, pending lawsuits as described above that challenge certain of the operations of our subsidiaries included:

Lawsuits seeking class/collective action status:

- alleging we sell or charge insureds for illusory coverage or coverage lower than amounts allowed by law for personal injury protection (PIP) coverage and pay related claims at levels lower than allowed by law.
- challenging how physical damage claims are handled, adjusted and ultimately paid, including how we value total loss claims, the payment of fees and taxes associated with total losses, and the payment of diminution damages.
- challenging our practice in Florida of adjusting PIP payments.
- challenging our assessment of fees.
- challenging our adjustment of medical bills submitted by insureds or medical providers in medical claims.
- challenging our claim settlement practices where the tortfeasor and the injured party are both Progressive insureds.
- challenging general claim practices, such as those relating to rental reimbursement.
- challenging our payment and reimbursement practices to Medicare Advantage Plans on first party medical, PIP, and bodily injury claims.

- alleging we improperly sell secondary PIP coverage to Medicare and Medicaid beneficiaries in New Jersey.
- challenging our rating practices.
- challenging our acceptance of uninsured motorist (UM) rejection.
- alleging we sell illusory underinsured motorist (UIM) coverage.
- alleging that the Snapshot® device causes damage to vehicles.
- alleging that we fail to pay overtime to certain employees who we classify as exempt from overtime pay requirements.

Lawsuits certified or conditionally certified as class/collective actions:

- alleging that we undervalued total loss claims through the use of certain valuation tools.
- challenging our practice in Florida of adjusting PIP payments.
- challenging the manner in which we grant a discount for anti-theft devices.

Individual lawsuits:

- challenging the estimation of physical damage and payment practices for physical damage repairs, and allegations of tortious interference with contract and insurance industry antitrust practice asserted by body shops outside our network program.
- claiming that we and other shareholders were overpaid for stock as part of a leveraged buy-out that preceded the entity's bankruptcy.
- claiming patent infringement.
- alleging that we are vicariously liable for the fraudulent acts of an agent.
- challenging, on a representative basis, certain of our pay practices.
- challenging various employment practices.

13. COMMITMENTS AND CONTINGENCIES

We have certain noncancelable operating lease commitments with lease terms greater than one year for property and computer equipment. The minimum commitments under these agreements at December 31, 2018, were as follows:

<u>(millions)</u>	<u>Commitments</u>
2019	\$ 64.1
2020	65.5
2021	52.8
2022	24.3
2023	8.5
Thereafter	3.8
Total	\$219.0

Some of the leases have options to renew at the end of the lease periods. The expense we incurred for the leases disclosed above, as well as other operating leases that may be cancelable or have terms less than one year, was:

<u>(millions)</u>	<u>Expense</u>
2018	\$77.3
2017	77.2
2016	72.9

We also have certain noncancelable purchase obligations. The minimum commitment under these agreements at December 31, 2018, was \$697.5 million.

The insurance operations of ARX have several multiple-layer property catastrophe excess of loss reinsurance contracts with various reinsurers with terms ranging from one to three years. The minimum commitment under these contracts was \$81.5 million at December 31, 2018.

14. DIVIDENDS

Common Share Dividends

Following is a summary of our common shareholder dividends that were declared in the last three years, under our annual variable dividend policy:

Dividend Type	Declared	Paid	Amount of Common Share Dividends	
			Per Share	Accrued ¹
Annual – Variable	December 2018	February 2019	\$2.5140	\$1,467.9
Annual – Variable	December 2017	February 2018	1.1247	655.1
Annual – Variable	December 2016	February 2017	0.6808	395.4

¹The accrual is based on an estimate of shares outstanding as of the record date and is recorded as a component of “accounts payable, accrued expenses, and other liabilities” on the Consolidated Balance Sheets; the prior year amount was reclassified into this line item from “dividends payable” to conform to the current year presentation. For the dividends declared in December 2017 and 2016, we paid \$654.9 million and \$395.4 million, respectively.

During 2018, 2017, and 2016, we maintained a policy of paying an annual variable dividend that, when declared, would be payable shortly after the close of the year. This annual variable dividend was based on a target percentage of after-tax underwriting income multiplied by a performance factor (Gainshare factor), which, in 2018, it was determined by reference to the Agency auto, Direct auto, special lines, Commercial Lines, and Property business units, with minor exclusions and adjustments. In December 2017, the Board determined the target percentage for 2018 to be 33-1/3% of annual after-tax underwriting income, which is unchanged from the target percentage in both 2017 and 2016. For the dividends declared in 2018, we applied a tax rate of 21% to calculate after-tax underwriting income, and a 35% tax rate for dividends declared for all prior years, since inception of the annual variable dividend. For the dividends declared in 2018, the Gainshare factor was 1.91, compared to 1.79 in 2017 and 1.67 in 2016.

In December 2018, the Board of Directors terminated the annual variable dividend policy and replaced it with a policy under which the Board expects to declare regular, quarterly common share dividends and, on at least an annual basis, to consider declaring an additional common share dividend. This policy is effective for 2019.

Preferred Share Dividends

In March 2018, we issued 500,000 Series B Fixed-to-Floating Rate Cumulative Perpetual Serial Preferred Shares, without par value (the “Series B Preferred Shares”), with a liquidation preference of \$1,000 per share (the “stated amount”). Holders of the Series B Preferred Shares will be entitled to receive cumulative cash dividends semi-annually in March and September, if and when declared by the Board of Directors. Until March 15, 2023 (the “fixed-rate period”), the annual dividend rate is fixed at 5.375% of the stated amount per share. Beginning March 15, 2023, the annual dividend rate switches to a floating rate equal to the three-month LIBOR rate plus a spread of 2.539% applied to the stated amount per share. After the fixed-rate period and up until redemption of the Series B Preferred Shares, the dividends would be payable quarterly, if and when declared by the Board of Directors. The Series B Preferred Shares are perpetual and have no stated maturity date. After the fixed-rate period, we may redeem the Series B Preferred Shares at the stated amount plus all accrued and unpaid dividends.

In 2018, the Board declared and we paid a dividend of \$27.024 per preferred share, or \$13.5 million.

15. REDEEMABLE NONCONTROLLING INTEREST

In connection with the April 2015 acquisition of a controlling interest in ARX, The Progressive Corporation entered into a stockholders’ agreement with the other ARX stockholders. As part of the stockholders’ agreement, the minority ARX stockholders had the right to “put” a portion of their ARX shares to Progressive in 2018, and have the right to put all of their remaining shares to Progressive in 2021. In 2018, minority ARX stockholders put 204,527 shares, including 5,483 shares that were issued upon the exercise of outstanding stock options. Progressive acquired these additional shares, in a cash transaction, for a total cost of \$295.9 million. If ARX stockholders do not put all of their shares to Progressive in 2021, Progressive has the ability to “call” all of the outstanding shares shortly thereafter and to bring its ownership stake to 100% in 2021. Progressive’s purchase prices for shares, pursuant to these put or call rights, will be determined by adding (A) the price per share paid at the closing on April 1, 2015, to (B) the product of the change in the fully diluted net tangible book

value per share of ARX between December 31, 2014, and December 31, 2020, times a multiple of between 1.0 and 2.0. The multiple will be determined based on the growth and profitability of ARX's business over the applicable time period, pursuant to criteria included in the stockholders' agreement. Among other provisions, the stockholders' agreement also prohibits ARX from taking a number of actions, including the payment of dividends, without the consent of The Progressive Corporation and one other stockholder.

Since these securities are redeemable upon the occurrence of an event that is not solely within the control of Progressive, we have recorded the redeemable noncontrolling interest (NCI) as mezzanine equity on our consolidated balance sheets, which represents the minority shares at the current estimated purchase price pursuant to the put and call provisions, calculated as described above, of the stockholders' agreement.

The redeemable noncontrolling interest was initially recorded at a fair value of \$411.5 million, representing the minority shares at the net acquisition price adjusted for the fair value of the put and call rights. The value of the put and call rights on the acquisition date was based on an internally developed modified binomial model. Subsequent changes to the redeemable noncontrolling interest are based on the maximum redemption value at the end of the reporting period, as determined in accordance with the stockholders' agreement.

In addition to these minority shares, at December 31, 2018, ARX employees held options to purchase 16,067 ARX shares. These options and any shares issued upon exercise are subject to the stockholders' agreement, including the right to "put" these shares to Progressive, as described above. Until the options are exercised, the underlying obligation of approximately \$23.1 million is not recorded as part of redeemable NCI.

The changes in the components of redeemable NCI during the year ended December 31, were:

(millions)	2018	2017	2016
Balance, Beginning of year	\$ 503.7	\$483.7	\$464.9
Net income attributable to NCI	5.7	5.9	26.2
Other comprehensive income (loss) attributable to NCI ¹	(3.3)	2.3	(3.2)
Exercise of employee stock options	9.4	3.4	0
Purchase/change of ARX minority shares	(298.2)	0	0
Change in redemption value of NCI	(2.8)	8.4	(4.2)
Balance, End of year	\$ 214.5	\$503.7	\$483.7

¹Amount represents the other comprehensive income (loss) attributable to NCI, as reflected on the the Consolidated Statements of Comprehensive Income; any reclassification to accumulated other comprehensive income (loss) attributable to NCI due to a change in the minority ownership percentage does not impact the amount of redeemable NCI.

16. GOODWILL AND INTANGIBLE ASSETS

Goodwill

Goodwill recorded at December 31, 2018, and 2017, was \$452.7 million. No accumulated goodwill impairment losses exist.

Intangible Assets

The following table is a summary of the net carrying amount of other intangible assets as of December 31:

(millions)	2018	2017
Intangible assets subject to amortization	\$282.2	\$354.2
Indefinite-lived intangible assets ¹	12.4	12.4
Total	\$294.6	\$366.6

¹Indefinite-lived intangible assets are comprised of state insurance and agent licenses. State insurance licenses were previously subject to amortization under superseded accounting guidance and have \$0.6 million of accumulated amortization for both years presented.

Intangible assets subject to amortization for the years ended December 31 consisted of the following:

(millions) Category	2018			2017		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Policies in force	\$256.2	\$137.3	\$118.9	\$256.2	\$100.7	\$155.5
Agency relationships	159.2	42.6	116.6	159.2	31.3	127.9
Software rights	79.1	40.1	39.0	79.1	29.4	49.7
Trade name	34.8	27.1	7.7	34.8	13.7	21.1
Total	\$529.3	\$247.1	\$282.2	\$529.3	\$175.1	\$354.2

Amortization expense was \$72.0 million, \$66.2 million, and \$62.1 million for the years ended December 31, 2018, 2017, and 2016, respectively.

During 2017, we revised our estimate of the economic useful life of our trade name intangible asset from an original life of 10 years to a remaining life of 2 years. The decrease in the useful life represents the estimated length of time that it is expected to take to transition the branding of our Property business from the ASI trade name to the Progressive brand. As of December 31, 2018, the remaining average life of all of our intangible assets was 3.9 years.

The estimated aggregate amortization on these intangible assets for each of the next five years as of December 31, 2018, is as follows:

(millions) Year	Amortization Expense
2019	\$66.4
2020	56.9
2021	56.6
2022	29.2
2023	13.5

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of The Progressive Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of The Progressive Corporation and its subsidiaries (the "Company") as of December 31, 2018 and 2017, and the related consolidated statements of comprehensive income, changes in shareholders' equity and cash flows for each of the three years in the period ended December 31, 2018 including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and

directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

PricewaterhouseCoopers LLP

Cleveland, Ohio
February 27, 2019

We have served as the Company's auditor since 1984.

Management's Report on Internal Control over Financial Reporting

Progressive's management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. Our internal control structure was designed under the supervision of our Chief Executive Officer and Chief Financial Officer to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

Our internal control over financial reporting includes policies and procedures that pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of assets; provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and our directors; and provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on our financial statements.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on our evaluation under the framework in *Internal Control – Integrated Framework (2013)*, management concluded that our internal control over financial reporting was effective as of December 31, 2018.

During the fourth quarter 2018, there were no changes in our internal control over financial reporting identified in the internal control review process that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PricewaterhouseCoopers LLP, an independent registered public accounting firm that audited the financial statements included in this Annual Report, has audited, and issued an attestation report on the effectiveness of, our internal control over financial reporting as of December 31, 2018; such report appears herein.

CEO and CFO Certifications

Susan Patricia Griffith, President and Chief Executive Officer of The Progressive Corporation, and John P. Sauerland, Vice President and Chief Financial Officer of The Progressive Corporation, have issued the certifications required by Sections 302 and 906 of The Sarbanes-Oxley Act of 2002 and applicable SEC regulations with respect to Progressive's 2018 Annual Report on Form 10-K, including the financial statements provided in this Report. Among other matters required to be included in those certifications, Mrs. Griffith and Mr. Sauerland have each certified that, to the best of their knowledge, the financial statements, and other financial information included in the Annual Report on Form 10-K, fairly present in all material respects the financial condition, results of operations, and cash flows of Progressive as of, and for, the periods presented. See Exhibits 31 and 32 to Progressive's Annual Report on Form 10-K for the complete Sections 302 and 906 certifications, respectively.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Our consolidated financial statements and the related notes, together with the supplemental information, should be read in conjunction with the following discussion and analysis of our consolidated financial condition and results of operations.

I. OVERVIEW

The Progressive insurance organization has been offering insurance to consumers since 1937. The Progressive Corporation is a holding company that does not have any revenue producing operations, physical property, or employees of its own. The Progressive Corporation wholly owns insurance and non-insurance subsidiaries and owns a controlling interest in ARX Holding Corp. ("ARX"), the parent company of American Strategic Insurance and other insurance subsidiaries and affiliates ("ASI") and non-insurance subsidiaries. The Progressive Group of Insurance Companies consists of our insurance subsidiaries and affiliates. The Progressive Group of Insurance Companies, together with our holding company, its other subsidiaries, and affiliates, comprise what we refer to as Progressive.

The Progressive Group of Insurance Companies offer personal and commercial auto insurance, residential property insurance, and other specialty property-casualty insurance and related services throughout the United States. Our Personal Lines segment writes insurance for personal autos and recreational vehicles, which we refer to as our special lines products, through more than 35,000 independent insurance agencies and directly to consumers online, on mobile devices, and over the phone. Our Commercial Lines segment offers insurance for cars and trucks owned and/or operated predominantly by small businesses through both the independent agency and direct channels. Our Property segment writes residential property insurance for homeowners, other property owners, and renters in both the independent agency channel and the direct channel. We are the third largest private passenger auto insurer in the country, the number one writer of commercial auto insurance, and one of the top 15 homeowners insurance carriers based on premiums written.

Our underwriting operations, combined with our service and investment operations, make up the consolidated group.

A. Operating Results

The Progressive Group of Insurance Companies recognized strong growth in both premiums and policies in force in 2018 across all of its segments. On a year-over-year basis, both net premiums written and earned grew 20% to \$32.6 billion and \$30.9 billion, respectively. During the year, we generated nearly \$5.5 billion more in written premiums than in 2017, reflecting both unit growth and an increase in average written premiums per policy. We had 20.4 million companywide policies in force at December 31, 2018, an increase of 12%, or 2.2 million policies, over the prior year.

On a year-over-year basis, net income and comprehensive income attributable to Progressive increased 64% and 30%, respectively, primarily reflecting an increase in our underwriting results. We produced an underwriting margin of 9.4%, which was 2.8 points better than 2017, reflecting a decrease in catastrophe losses, along with an increase in average written premium per policy and a decrease in our auto claims frequency compared to 2017.

Investment income (e.g., interest and dividends) increased 46% on a year-over-year basis, primarily reflecting an increase in average assets and portfolio yields. The realized losses on securities for 2018 were primarily the result of net holding period losses on our equity portfolio. Due to a change in accounting guidance, as of January 1, 2018, the change in value of our equity securities is reported as a component of net income, instead of being a component of other comprehensive income as they were classified in the prior year. This accounting change caused volatility in net income for 2018, based on equity market conditions, and will likely cause volatility in the future. Therefore, year-over-year comparisons of net income may be less meaningful and comprehensive income may be a more beneficial measure of our overall performance. Comprehensive income was \$2.5 billion, an increase of \$0.6 billion from last year, driven primarily by our previously mentioned significant increase in underwriting profitability.

The impairment losses for the year reflected write-downs on investments related to renewable energy tax credits, which are held outside of our investment portfolio and are reported in other assets. As a result of these investments, we also recorded \$71.0 million of federal tax benefits in our income tax provision during 2018, which represented all of the expected tax benefits from these investments (see *Note 5 – Income Taxes* for further discussion). In addition, the change in the statutory federal income tax rate to 21% from 35% last year reduced our tax expense for 2018.

We ended 2018 with total capital (debt plus shareholders' equity) of \$15.2 billion, \$2.6 billion more than 2017. The year-over-year increase reflects income generated, along with \$1.65 billion of debt and preferred equity issued, during the year, netted with our common share dividend of \$1.5 billion.

B. Insurance Operations

For 2018, our companywide underwriting profit margin was 9.4%, compared to 6.6% in 2017. Our Personal and Commercial Lines operating segments were profitable with underwriting margins of 9.7% and 13.3%, respectively, while our Property segment had an underwriting loss of 6.9% for the year, which included 5.6 points of amortization expense, predominately related to the acquisition of a majority interest in ARX in 2015. Our special lines products also had a profitable year, contributing a 0.4 point favorable impact on our total Personal Lines combined ratio points.

During the year, on a companywide basis, we recognized 2.0 loss ratio points related to catastrophe losses, compared to 3.2 points in 2017. The unfavorable impact of these catastrophe losses for our vehicle businesses and Property business were 1.1 points and 20.9 points, respectively, compared to 2.1 points and 30.3 points last year. Hurricane Michael was the largest named storm in 2018 and accounted for 20% of our companywide net catastrophe losses. On a direct basis, the Property business incurred about \$130 million of losses and loss and loss adjustment expenses (LAE) from Hurricane Michael, but ceded \$70 million under our catastrophe reinsurance agreements.

For the year, our companywide prior accident year development was 0.3 points of unfavorable impact on our combined ratio, compared to 0.1 points of unfavorable development in 2017. Our overall incurred severity in our personal auto businesses increased about 5%, while frequency decreased about 3%, compared to the prior year.

On a year-over-year basis, both companywide net premiums written and earned increased 20%. Changes in net premiums written are a function of new business applications (i.e., policies sold), premium per policy, and retention.

During 2018, total new personal auto applications increased 20% on a year-over-year basis, including a 14% increase in our Agency auto business and a 25% increase in our Direct auto business. The significant increase in Direct auto applications reflects, in part, increased advertising spend during the year, as well as our improved competitive position in the marketplace. We will continue to spend on marketing when we believe it is an efficient use of our dollars. We continued to generate strong growth in our bundled auto and home customers (i.e., Robinsons) in both the Agency and Direct channels. Increasing the number of Robinsons we write is critical to achieving success in our Destination Era strategy.

For our Commercial Lines business, new applications increased 12% for the year. This increase was primarily driven by increased quote volume and the lifting of certain underwriting restrictions that were in place during 2017. We will continue to monitor our rate levels with a view toward continuing to manage profitable growth, while providing high-quality customer service.

Our Property business new applications increased 53% for the year. The growth in the Property business includes state expansion and more competitive product offerings. Part of the year-over-year increase also reflected business that we began writing in 2018 when an unaffiliated carrier stopped offering homeowners insurance through our in-house agency, as well as growth in both the number of Platinum agents and the business written through those agencies.

During 2018, on a year-over-year basis, written premium per policy increased 5% for our Agency and 4% for our Direct personal auto businesses, primarily reflecting a 1.2% increase in auto rates taken during the year and a shift in business mix. Written premium per policy for our special lines products increased 5%, compared to last year. Commercial Lines experienced a 14% increase in written premium per policy, which reflects shifts in our mix of businesses to higher premium products, as well as rate actions taken throughout 2017 and 2018. For the Property business, written premium per policy decreased 3%, primarily reflecting the renters business, which has lower premiums per policy, comprising a greater proportion of the total Property business. For our core Property business (e.g., home and condo insurance), the written premium per policy increased slightly. We continue to increase rate levels in our Property business to help meet our profitability targets in this segment. As Property policies generally have 12 month terms, much of our rate increases taken in the second half of 2017 and during 2018 have yet to be reflected in earned premium.

To grow policies in force, it is critical that we retain our customers for longer periods. Consequently, increasing retention continues to be one of our most important priorities. Our efforts to increase our share of multi-product households continue

to be a key initiative to support that goal. Policy life expectancy, which is our actuarial estimate of the average length of time that a policy will remain in force before cancellation or lapse in coverage, is our primary measure of customer retention in our vehicle businesses. Our trailing 12-month total auto policy life expectancy was up 3% over last year, while our total auto trailing 3-month policy life expectancy, which does not address seasonality and can reflect more volatility, was down 4%. Our Agency auto and Direct auto trailing 12-month policy life expectancy were up 4% and 1%, respectively, special lines decreased 3%, and Commercial Lines increased 1% year over year. The increases in our 12-month policy life expectancy for our auto businesses reflect our improved competitive position in 2018 as well as our Destination Era initiatives, where we have experienced an increase in customers who bundle their auto coverage with other products, which tends to translate to longer relationships with these customers. We remain focused in our retention efforts in light of the trailing 3-month policy life expectancy decreasing year over year, since this metric tends to be a leading indicator of retention. We are also continuing to make investments to improve the customer experience in an effort to lengthen retention.

C. Investments

The fair value of our investment portfolio was \$33.6 billion at December 31, 2018. Our asset allocation strategy is to maintain 0-25% of our portfolio in Group I securities, with the balance (75%-100%) of our portfolio in our Group II securities (the securities allocated to Group I and II are defined below under *Results of Operations – Investments*). At December 31, 2018, 14% of our portfolio was allocated to Group I securities and 86% to Group II securities, compared to 17% and 83%, respectively, at December 31, 2017.

Our recurring investment income generated a pretax book yield of 2.8% for 2018, compared to 2.4% for 2017. Our investment portfolio produced a fully taxable equivalent (FTE) total return of 1.2% for 2018, compared to 5.2% for 2017. Our fixed-income and common stock portfolios had FTE total returns of 1.5% and (4.4)%, respectively, for 2018, and 3.0% and 21.8%, for 2017.

At December 31, 2018, the fixed-income portfolio had a weighted average credit quality of AA- and a duration of 2.8 years, compared to AA- and 2.5 years at December 31, 2017. We lengthened our portfolio duration modestly during the year in response to higher interest rates as the risk/reward to our portfolio's value at higher rate levels moved toward a more balanced position. However, our duration remains below the mid-point of our range as a means to limit a decline in portfolio value from a significant increase in rates from current levels.

II. FINANCIAL CONDITION

A. Liquidity and Capital Resources

The Progressive Corporation receives cash through subsidiary dividends, security sales, borrowings, and other transactions, and uses these funds to contribute to its subsidiaries (e.g., to support growth), to make payments to shareholders and debt holders (e.g., dividends and interest, respectively), and to repurchase its common shares and debt, as well as for acquisitions and other business purposes that might arise.

During 2018, The Progressive Corporation received cash from the following sources:

- Subsidiary dividends – received \$760.8 million of dividends, net of capital contributions, from our insurance and non-insurance subsidiaries,
- Debt issuances – issued \$600 million of our 4.20% Senior Notes due 2048 and \$550 million of our 4.00% Senior Notes due 2029 in underwritten public offerings, and
- Preferred share issuance – issued \$500 million of Series B Fixed-to-Floating Rate Cumulative Perpetual Serial Preferred Shares, without par value (the “Series B Preferred Shares”), in an underwritten public offering.

The Progressive Corporation deployed capital through the following actions in 2018:

- Dividends
 - Common shares – declared a \$2.5140 per common share annual variable dividend, which returned \$1,467.9 million of capital to our common shareholders in February 2019, and
 - Preferred shares – declared and paid \$13.5 million to our Series B Preferred shareholders;
- Increased our percentage ownership of ARX when minority ARX stockholders sold shares to Progressive, at a total cost of \$295.9 million;
- Repurchased 1.4 million of our common shares at a total cost of \$79.0 million, primarily pursuant to our equity compensation plans and to neutralize dilution from equity-based compensation in the year of issuance as stated in our financial policies; and

- Loaned funds to ARX, which it used in part to repay in full term loans from third parties in the aggregate principal amount of \$37.1 million.

Over the last three years, The Progressive Corporation received dividends from its subsidiaries, net of capital contributions, of \$1.8 billion. Regulatory restrictions on subsidiary dividends are described in *Note 8 – Statutory Financial Information*.

During the last three years, we issued \$2.5 billion of senior notes and \$500 million of our Series B Preferred Shares to take advantage of attractive terms in the market and provide additional financial flexibility. The covenants on The Progressive Corporation's existing debt securities do not include any rating or credit triggers that would require an adjustment of the interest rate or an acceleration of principal payments in the event that our debt securities are downgraded by a rating agency. During the last three years, we did not borrow under our uncommitted line of credit or engage in other short-term borrowings to fund our operations or for liquidity purposes. During the same period, we repaid \$0.8 billion of our outstanding debt, paid common and preferred share dividends of \$1.6 billion, and repurchased our common shares at a total cost of \$0.3 billion. We also paid \$0.3 billion to increase our ownership of ARX (discussed below).

Prior to 2019, we maintained a policy of paying a common share annual variable dividend that, if declared, would be payable shortly after the close of the year. Under this policy, we declared dividends in each of the last three years based on a specified formula. In December 2018, the Board of Directors terminated our annual variable dividend policy, effective after payment of the 2018 annual variable dividend in February 2019. See *Note 14 – Dividends* for a further discussion of our 2018 common share annual variable dividend policy, along with the details on the preferred share dividend payments.

In lieu of the annual variable dividend policy, the Board expects to declare regular, quarterly common share dividends and, on at least an annual basis, consider declaring an additional common share dividend after considering our existing capital resources and current and future capital needs and not solely based on a specific formula or calculation. The ultimate decision on whether or not a dividend will be paid is in the discretion of the Board and they could decide to alter our policy, or to not declare a quarterly or annual common share dividend, at any time. Such an action by the Board could result from, among other reasons, changes in the insurance marketplace, changes in our performance or capital needs, changes in the U.S. federal income tax laws, disruptions of national or international capital markets, or other events affecting our business, liquidity, or financial position. Under the dividend policy effective in 2019, it is expected that the Board will initially target the regular, quarterly common share dividend to be about \$0.10 per quarter.

For the three years ended December 31, 2018, operations generated positive cash flows of about \$12.8 billion, and cash flows are expected to remain positive in both the short-term and reasonably foreseeable future. In 2018, operating cash flows increased \$2.5 billion, compared to 2017, primarily due to an increase in premiums collected in excess of paid losses due to the growth during the year. As of December 31, 2018, we held \$11.7 billion in short-term investments and U.S. Treasury securities. Based on our portfolio allocation and investment strategies, we believe that we have sufficient readily available marketable securities to cover our claims payments in the event our cash flow from operations were to be negative. See Item 1A, "Risk Factors," in our Form 10-K filed with the Securities and Exchange Commission for a discussion of certain matters that may affect our portfolios and capital position.

Progressive's insurance operations create liquidity by collecting and investing premiums from new and renewal business in advance of paying claims. As primarily an auto insurer, our claims liabilities are generally short in duration. Typically, at any point in time, approximately 50% of our outstanding loss and LAE reserves are paid within the following twelve months and less than 20% are still outstanding after three years. See *Note 6 – Loss and Loss Adjustment Expense Reserves* for further information on the timing of claims payments.

Insurance companies are required to satisfy regulatory surplus and premiums written-to-surplus ratio requirements. As of December 31, 2018, our consolidated statutory surplus was \$11.7 billion, compared to \$9.7 billion at December 31, 2017. Our net premiums written-to-surplus ratio was 2.8 to 1 at year-end 2018 and 2017, compared to 2.7 to 1 at year-end 2016. At year-end 2018, we also had access to \$2.9 billion of securities held in a non-insurance subsidiary, portions of which could be contributed to the capital of our insurance subsidiaries to support growth or for other purposes. We used \$1.5 billion of available funds to pay the annual variable dividend in February 2019.

Insurance companies are also required to satisfy risk-based capital ratios. These ratios are determined by a series of dynamic surplus-related calculations required by the laws of various states that contain a variety of factors that are applied to financial balances based on the degree of certain risks (e.g., asset, credit, and underwriting). Our insurance subsidiaries'

risk-based capital ratios are in excess of applicable minimum regulatory requirements. Nonetheless, the payment of dividends by our insurance subsidiaries are subject to certain limitations. See *Note 8 – Statutory Financial Information* for additional information on insurance subsidiary dividends and *Note 15 – Redeemable Noncontrolling Interest* for information on the dividend restriction under the ARX stockholders’ agreement.

In connection with the April 2015 acquisition of a controlling interest in ARX, The Progressive Corporation entered into a stockholders’ agreement with the other ARX stockholders. As part of the stockholders’ agreement, the minority ARX stockholders had the right to “put” a portion of their ARX shares to Progressive in 2018, and have the right to put all of their remaining shares to Progressive in 2021. If ARX stockholders do not put all of their shares to Progressive in 2021, Progressive has the ability to “call” all of the outstanding shares shortly thereafter and to bring its ownership stake to 100% in 2021. In accordance with the agreement, in 2018, The Progressive Corporation increased its share ownership of ARX when minority ARX stockholders sold shares to Progressive, at a total cost of \$295.9 million. As of December 31, 2018, Progressive owns 86.8% of ARX. See *Note 15 – Redeemable Noncontrolling Interest* for further information, including the calculation of the purchase prices.

We seek to deploy our capital in a prudent manner and use multiple data sources and modeling tools to estimate the frequency, severity, and correlation of identified exposures, including, but not limited to, catastrophic and other insured losses, natural disasters, and other significant business interruptions, to estimate our potential capital needs. Management views our capital position as consisting of three layers, each with a specific size and purpose:

- The first layer of capital, which we refer to as “regulatory capital,” is the amount of capital we need to satisfy state insurance regulatory requirements and support our objective of writing all the business we can write and service, consistent with our underwriting discipline of achieving a combined ratio of 96 or better. This capital is held by our various insurance entities.
- The second layer of capital we call “extreme contingency.” While our regulatory capital is, by definition, a cushion for absorbing financial consequences of adverse events, such as loss reserve development, litigation, weather catastrophes, and investment market corrections, we view that as a base and hold additional capital for even more extreme conditions. The modeling used to quantify capital needs for these conditions is extensive, including tens of thousands of simulations, representing our best estimates of such contingencies based on historical experience. This capital is held either at a non-insurance subsidiary of the holding company or in our insurance entities, where it is potentially eligible for a dividend up to the holding company.
- The third layer is capital in excess of the sum of the first two layers and provides maximum flexibility to fund other business opportunities, repurchase stock or other securities, satisfy acquisition-related commitments, and pay dividends to shareholders, among other purposes. This capital is largely held at a non-insurance subsidiary of the holding company.

At all times during the last two years, our total capital exceeded the sum of our regulatory capital layer plus our self-constructed extreme contingency layer. At December 31, 2018, we held total capital (debt plus shareholders’ equity) of \$15.2 billion, compared to \$12.6 billion at December 31, 2017. Our debt-to-total capital (debt plus shareholders’ equity, which does not include redeemable noncontrolling interest) ratios at December 31, 2018, 2017, and 2016 were 28.9%, 26.3%, and 28.3%, respectively, and were consistent with our financial policy of maintaining a ratio of less than 30%, which we target to meet annually.

Based upon our capital planning and forecasting efforts, we believe that we have sufficient capital resources and cash flows from operations to support our current business, scheduled principal and interest payments on our debt, dividends on our common shares and Series B Preferred Shares, our contractual obligations, and other expected capital requirements for the foreseeable future.

We have an unsecured discretionary line of credit (the “Line of Credit”) with PNC Bank, National Association, in the maximum principal amount of \$250 million, which will expire on April 30, 2019. We did not engage in short-term borrowings, including any borrowings under our discretionary Line of Credit, to fund our operations or for liquidity purposes during the last three years.

B. Commitments, Contingencies, and Other Off-Balance-Sheet Arrangements

Contractual Obligations

A summary of our noncancelable contractual obligations as of December 31, 2018, follows:

(millions)	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Debt	\$ 4,450.0	\$ 0	\$ 500.0	\$ 0	\$3,950.0
Interest payments on debt	3,469.7	184.9	376.3	338.8	2,569.7
Operating leases	219.0	64.1	118.3	32.8	3.8
Purchase obligations	697.5	565.4	121.2	10.5	0.4
Catastrophe excess of loss reinsurance contracts ¹	81.5	74.8	6.7	0	0
Loss and loss adjustment expense reserves	15,400.8	7,618.2	5,028.6	1,314.4	1,439.6
Total	\$24,318.5	\$8,507.4	\$6,151.1	\$1,696.5	\$7,963.5

¹The insurance operations of ARX have several multiple-layer property catastrophe excess of loss reinsurance contracts with various reinsurers with terms ranging from one to three years.

Purchase obligations represent our noncancelable commitments for goods and services (e.g., software licenses, maintenance on information technology equipment, and media placements). Unlike many other forms of contractual obligations, loss and LAE reserves do not have definitive due dates and the ultimate payment dates are subject to a number of variables and uncertainties. As a result, the total loss and LAE reserve payments to be made by period, as shown above, are estimates based on our recent payment patterns. To further understand our claims payments, see *Note 6 – Loss and Loss Adjustment Expense Reserves*.

Off-Balance-Sheet Arrangements

During the last two years, our off-balance-sheet leverage included operating leases and purchase obligations (disclosed in the table above and *Note 13 – Commitments and Contingencies*). We did not have any open derivative positions at December 31, 2018 and 2017. We did not have any U.S. Treasury futures contracts during 2018 or 2017. During 2016, we opened and closed, within the same year, U.S. Treasury futures contracts as a means to manage the overall duration of our fixed-income portfolio and recorded net realized gains of \$0.3 million.

III. RESULTS OF OPERATIONS – UNDERWRITING

A. Segment Overview

We report our underwriting operations in three segments: Personal Lines, Commercial Lines, and Property. As a component of our Personal Lines segment, we report our Agency and Direct business results to provide further understanding of our products by distribution channel. Our other indemnity business represents our run-off businesses.

The following table shows the composition of our companywide net premiums written, by segment, for the years ended December 31:

	2018	2017	2016
Personal Lines			
Agency	41%	43%	43%
Direct	42	42	42
Total Personal Lines ¹	83	85	85
Commercial Lines	12	11	11
Property	5	4	4
Total underwriting operations	100%	100%	100%

¹Personal auto represented 94% of our total Personal Lines net premiums written in 2018, 93% in 2017, and 92% in 2016; our special lines products accounted for the balance.

Our Personal Lines segment writes insurance for personal auto and special lines products (e.g., motorcycles, watercraft, and RVs). We currently write our Personal Lines products in all 50 states. We also offer our personal auto product (not special lines products) in the District of Columbia. Our personal auto policies are primarily written for 6-month terms, while the special lines products are written for 12-month terms.

Our Commercial Lines business writes primary liability, physical damage, and other auto-related insurance for automobiles and trucks owned and/or operated predominantly by small businesses. The majority of our Commercial Lines business is written through the independent agency channel. The amount of business written through the direct channel continues to grow and represented about 12% of premiums written for 2018. We write Commercial Lines business in all 50 states and our policies are primarily written for 12-month terms.

Our Property business writes residential property insurance for single family homes, condominium unit owners, renters, etc., and primarily consists of the operations of the ARX organization. We write the majority of our Property business through the independent agency channel; however, we continue to expand the distribution of our Property product offerings in the direct channel. Property policies are written for 12-month terms. We write residential property insurance in 43 states and the District of Columbia, and both renters insurance and flood insurance in 44 states and the District of Columbia. Our flood insurance is written primarily through the National Flood Insurance Program. Florida and Texas remain the largest states for the Property business, comprising just over 40% of the 2018 written premium volume.

B. Profitability

Profitability for our underwriting operations is defined by pretax underwriting profit, which is calculated as net premiums earned plus fees and other revenues less losses and loss adjustment expenses, policy acquisition costs, and other underwriting expenses. We also use underwriting margin, which is underwriting profit or loss expressed as a percentage of net premiums earned, to analyze our results. For the three years ended December 31, our underwriting profitability results were as follows:

(\$ in millions)	2018		2017		2016	
	Underwriting Profit (Loss)		Underwriting Profit (Loss)		Underwriting Profit (Loss)	
	\$	Margin	\$	Margin	\$	Margin
Personal Lines						
Agency	\$1,435.7	11.0%	\$ 839.6	7.5%	\$ 492.8	5.0%
Direct	1,088.5	8.4	683.7	6.3	412.2	4.4
Total Personal Lines	2,524.2	9.7	1,523.3	6.9	905.0	4.7
Commercial Lines	478.6	13.3	214.1	7.7	155.2	6.4
Property ¹	(88.7)	(6.9)	(50.3)	(5.1)	32.5	3.8
Other indemnity ²	0.9	NM	(0.2)	NM	(1.6)	NM
Total underwriting operations	\$2,915.0	9.4%	\$1,686.9	6.6%	\$1,091.1	4.9%

¹During 2018, 2017, and 2016, pretax profit (loss) includes \$72.0 million, \$66.2 million, and \$62.1 million, respectively, of amortization expense predominately associated with the acquisition of a controlling interest in ARX. Although this expense is included in our Property segment, it is not reported in the consolidated results of ARX and, therefore, does not affect the value of net income attributable to noncontrolling interest.

²Underwriting margins for our other indemnity businesses are not meaningful (NM) due to the low level of premiums earned by, and the variability of loss costs in, such businesses.

Our underwriting profit for 2018, compared to 2017 and 2016, was favorably impacted by higher earned premium per policy in both the Personal Lines and Commercial Lines businesses, reflecting increases in rates and shifts in the mix of business. In addition, claims frequency decreased in 2018 and 2017, in excess of the amounts anticipated for both our personal and commercial auto products. Catastrophe losses as a percent of earned premiums were also lower in 2018 than in 2017 and 2016, contributing to the improved profitability.

Further underwriting results for our Personal Lines business, including results by distribution channel, the Commercial Lines business, the Property business, and our underwriting operations in total, as defined in *Note 10 – Segment Information*, were as follows:

Underwriting Performance¹	2018	2017	2016
Personal Lines – Agency			
Loss & loss adjustment expense ratio	69.8	73.0	75.3
Underwriting expense ratio	19.2	19.5	19.7
Combined ratio	89.0	92.5	95.0
Personal Lines – Direct			
Loss & loss adjustment expense ratio	71.4	74.1	76.8
Underwriting expense ratio	20.2	19.6	18.8
Combined ratio	91.6	93.7	95.6
Total Personal Lines			
Loss & loss adjustment expense ratio	70.6	73.6	76.1
Underwriting expense ratio	19.7	19.5	19.2
Combined ratio	90.3	93.1	95.3
Commercial Lines			
Loss & loss adjustment expense ratio	66.3	70.3	71.9
Underwriting expense ratio	20.4	22.0	21.7
Combined ratio	86.7	92.3	93.6
Property			
Loss & loss adjustment expense ratio	72.8	70.8	63.2
Underwriting expense ratio ²	34.1	34.3	33.0
Combined ratio ²	106.9	105.1	96.2
Total Underwriting Operations ³			
Loss & loss adjustment expense ratio	70.2	73.1	75.1
Underwriting expense ratio	20.4	20.3	20.0
Combined ratio	90.6	93.4	95.1
Accident year — Loss & loss adjustment expense ratio ⁴	69.9	73.0	75.5

¹Ratios are expressed as a percentage of net premiums earned; fees and other revenues are deducted from underwriting expenses in the ratio calculations.

²Included in 2018, 2017, and 2016, are 5.6 points, 6.7 points, and 7.2 points, respectively, of amortization expense predominately associated with our acquisition of a controlling interest in ARX. Excluding this expense, the Property business would have reported expense ratios of 28.5, 27.6, and 25.8, and combined ratios of 101.3, 98.4, and 89.0, for 2018, 2017, and 2016, respectively.

³Combined ratios for the other indemnity businesses are not presented separately due to the low level of premiums earned by, and the variability of loss costs in, such businesses.

⁴The accident year ratios include only the losses that occurred during the period noted. As a result, accident period results will change over time, either favorably or unfavorably, as we revise our estimates of loss costs when payments are made or reserves for that accident period are reviewed.

Losses and Loss Adjustment Expenses (LAE)

(millions)	2018	2017	2016
Change in net loss and LAE reserves	\$ 1,911.3	\$ 1,349.8	\$ 973.2
Paid losses and LAE	19,809.7	17,458.2	15,906.4
Total incurred losses and LAE	\$21,721.0	\$18,808.0	\$16,879.6

Claims costs, our most significant expense, represent payments made, and estimated future payments to be made, to or on behalf of our policyholders, including expenses needed to adjust or settle claims. Claims costs are a function of loss severity and frequency and, for our vehicle businesses, are influenced by inflation and driving patterns, among other factors, some

of which are discussed below. In our Property business, claim severity is primarily a function of construction costs and the age of the structure. Accordingly, anticipated changes in these factors are taken into account when we establish premium rates and loss reserves. Loss reserves are estimates of future costs and our reserves are adjusted as underlying assumptions change and information develops. See *Critical Accounting Policies* for a discussion of the effect of changing estimates.

Our total loss and LAE ratio decreased 2.9 points and 2.0 points in 2018 and 2017, respectively, compared to the prior year. Our accident year loss and LAE ratio, which excludes the impact of prior accident year reserve development during each calendar year, decreased 3.1 points and 2.5 points in 2018 and 2017, respectively. Several factors that contributed to the year-over-year changes are discussed below and include the impact of catastrophe losses, changes in severity and frequency, and prior accident year reserve development. Lower catastrophe losses and a decrease in auto frequency were the primary factors contributing to the improved ratios in 2018.

We experienced severe weather conditions in several areas of the country during each of the last three years. Hail storms, tornadoes, wind, flooding, and hurricane activity contributed to catastrophe losses each year. The following table shows catastrophe losses incurred for the years ended December 31:

(\$ in millions)	2018	2017	2016
Vehicle businesses	\$ 337.1	\$ 531.2	\$ 381.1
Property business, net of reinsurance (excluding ASL)	274.4	303.5	170.7
Reinsurance recoverable on ASL ¹	(5.6)	(4.2)	—
Property business, net	268.8	299.3	170.7
Total catastrophe losses incurred	\$ 605.9	\$ 830.5	\$ 551.8
Increase to combined ratio	2.0 pts.	3.2 pts.	2.5 pts.

¹Represents the reinsurance recoverable recorded on the losses under our aggregate stop-loss agreement (ASL); see table below for further information.

The catastrophe losses in 2018 were primarily due to severe storms in California, Colorado, Florida, Georgia, North Carolina, and Texas, including Hurricane Michael and wildfires in California. We responded, and will continue to respond, promptly to catastrophic events when they occur in order to provide exemplary claims service to our customers.

We do not have catastrophe-specific reinsurance for our vehicle businesses, but we reinsure most of our Property business against various risks, including, but not limited to, catastrophic losses. The Property business has aggregate stop-loss agreements and catastrophe reinsurance coverage agreements.

We had aggregate stop-loss reinsurance agreements (ASL), which were in effect during 2018 and 2017, with substantially the same terms. These ASL agreements cover Property losses and a portion of LAE known as allocated loss adjustment expenses (ALAE) except those from named storms (both hurricanes and tropical storms) and liability claims, for business written by ARX subsidiaries that write Property business. As such, it provides protection for losses and ALAE incurred by our Property business in the ordinary course, including those resulting from other significant severe weather events, such as hail, tornadoes, etc. This agreement provides \$200 million of coverage to the extent that the net loss and LAE ratio for the full accident year exceeds 63%. The ASL reduces the likelihood that we will experience a net underwriting loss for reasons other than named storms and liability claims. In 2019, we renewed the ASL agreement under substantially the same terms as the prior agreements with the exception that the 2019 ASL agreement also covers an additional \$100 million of retained losses and ALAE from named storms.

We did not have any covered losses that exceeded the threshold under the 2018 ASL agreement. The table above reports the reinsurance recoverables under our aggregate stop-loss agreements related to development on 2017 losses during 2018, and for accident year 2017 losses in 2017. The following table shows the total reinsurance recoverables activity during 2018 and 2017, under the ASL by accident year:

(millions)	Calendar Year	
	2018	2017
Reinsurance recoverable balance at January 1	\$ 4.6	\$ 0
Reinsurance recoverables recognized on losses		
Accident year:		
2018	0	0
2017	5.6	4.2
Total	5.6	4.2
Reinsurance recoverables recognized on ALAE		
Accident year:		
2018	0	0
2017	2.3	0.4
Total	2.3	0.4
Total reinsurance recoverables recognized		
Accident year:		
2018	0	0
2017	7.9	4.6
Total	7.9	4.6
Reinsurance recoverable balance at December 31	\$12.5	\$4.6

In addition to the aggregate stop-loss agreements, our Property business is covered by multi-year catastrophe reinsurance contracts, which carry retention thresholds for losses and LAE from a single catastrophic event of \$60 million for 2018, compared to the \$50 million retention level in 2017. We believe this increased retention level is appropriate given our growth in both premiums and regulatory capital. On a gross basis, including losses and LAE, the Property business incurred \$130 million from Hurricane Michael. Pursuant to the excess of loss reinsurance coverages, we were able to cede \$70 million of these losses and LAE. Our Property business gross losses and LAE from Hurricane Florence and the California wildfires did not exceed the \$60 million retention threshold.

The following discussion of our severity and frequency trends in our personal auto businesses excludes comprehensive coverage because of its inherent volatility, as it is typically linked to catastrophic losses generally resulting from adverse weather. For our commercial auto products, the reported frequency and severity trends include comprehensive coverage. Comprehensive coverage insures against damage to a customer's vehicle due to various causes other than collision, such as windstorm, hail, theft, falling objects, and glass breakage.

Total personal auto incurred severity (i.e., average cost per claim, including both paid losses and the change in case reserves) on a calendar-year basis was up over the prior-year periods in the 3% to 5% range for the last three years.

- 2018 – Severity increased about 8% for our collision coverage, about 4% for our property damage and bodily injury coverages, and about 2% for our Personal Injury Protection (PIP) coverage.
- 2017 – Severity increased about 5% for our property damage coverage, about 4% for our PIP coverage, and 2% for our bodily injury coverage, while collision coverage was flat.
- 2016 – Severity increased about 5% for our PIP coverage, about 3% for our property damage coverage, about 4% for collision coverage, and 2% for our bodily injury coverage.

On a calendar-year basis, our commercial auto products incurred severity increased 10% in 2018, compared to a 7% increase in 2017, and a 17% increase in 2016. About half of the severity increase in 2018 reflects a shift in the mix of business to for-hire trucking, which has higher average severity than the business auto and contractor market tiers.

It is a challenge to estimate future severity, especially for bodily injury and PIP claims, but we continue to monitor changes in the underlying costs, such as medical costs, health care reform, and jury verdicts, along with regulatory changes and other factors that may affect severity.

Our personal auto incurred frequency, on a calendar-year basis, was down about 3% in both 2018 and 2017, and flat in 2016.

- 2018 – Frequency decreased about 3% for all coverages (PIP, collision, property damage, and bodily injury).
- 2017 – Frequency decreased about 5% for our PIP coverage, about 4% for our collision coverage, about 3% for our property damage coverage, and 2% for our bodily injury coverage.
- 2016 – Our collision coverage had a decrease in frequency of about 1%. Our property damage coverage frequency was relatively flat, while our PIP and bodily injury coverages had an increase in frequency of about 1% and 3%, respectively.

On a year-over-year basis, incurred frequency in our Commercial Lines business saw a decrease of about 3% in both 2018 and 2017, and an increase of about 4% for 2016. The 2018 frequency decrease was in part driven by continued product segmentation and underwriting restrictions, which created a mix shift toward more preferred, lower-frequency, business.

We closely monitor the changes in frequency, but the degree or direction of near-term frequency change is not something that we are able to predict with any certainty. We analyze trends to distinguish changes in our experience from external factors, such as changes in the number of vehicles per household, miles driven, gasoline prices, advances in vehicle safety, and unemployment rates, versus those resulting from shifts in the mix of our business, to allow us to reserve more accurately for our loss exposures.

The table below presents the actuarial adjustments implemented and the loss reserve development experienced in the years ended December 31:

(\$ in millions)	2018	2017	2016
ACTUARIAL ADJUSTMENTS			
Reserve decrease (increase)			
Prior accident years	\$ (25.0)	\$ 138.5	\$ 142.6
Current accident year	17.0	(19.8)	(6.2)
Calendar year actuarial adjustments	\$ (8.0)	\$ 118.7	\$ 136.4
PRIOR ACCIDENT YEARS DEVELOPMENT			
Favorable (unfavorable)			
Actuarial adjustments	\$ (25.0)	\$ 138.5	\$ 142.6
All other development	(63.5)	(164.4)	(55.1)
Total development	\$ (88.5)	\$ (25.9)	\$ 87.5
(Increase) decrease to calendar year combined ratio	(0.3) pts.	(0.1) pts.	0.4 pts.

Total development consists of both actuarial adjustments and “all other development.” The actuarial adjustments represent the net changes made by our actuarial staff to both current and prior accident year reserves based on regularly scheduled reviews. Through these reviews, our actuaries identify and measure variances in the projected frequency and severity trends, which allow them to adjust the reserves to reflect the current cost trends. For our Property business, 100% of the outstanding reserves are reviewed monthly and, as such, include any development on catastrophe losses as part of the actuarial adjustments. For the vehicle businesses, only a subset of our reserves is reviewed monthly as part of the actuarial adjustment process. Development for catastrophe losses for the vehicle businesses would be reflected in “all other development,” discussed below, to the extent they relate to prior year reserves. We report these actuarial adjustments separately for the current and prior accident years to reflect these adjustments as part of the total prior accident years development.

“All other development” represents claims settling for more or less than reserved, emergence of unrecorded claims at rates different than anticipated in our incurred but not recorded (IBNR) reserves, and changes in reserve estimates on specific claims. Although we believe the development from both the actuarial adjustments and “all other development” generally results from the same factors, we are unable to quantify the portion of the reserve development that might be applicable to any one or more of those underlying factors.

Our objective is to establish case and IBNR reserves that are adequate to cover all loss costs, while incurring minimal variation from the date the reserves are initially established until losses are fully developed. As reflected in the table above, we experienced unfavorable prior year development during both 2018 and 2017 and favorable development during 2016. For 2018, we incurred unfavorable reserve development primarily due to reopened PIP claims in our personal auto business. For 2017, we incurred unfavorable reserve development in our Agency personal auto business, which was partially offset by favorable development in our Property business. For 2016, we incurred favorable reserve development in both our Personal Lines and Property businesses, which was partially offset by unfavorable IBNR loss reserve development in our Commercial Lines business due to higher severity and frequency of late reported claims than anticipated for accident year 2015. See *Note 6 – Loss and Loss Adjustment Expense Reserves* for a more detailed discussion of the factors impacting our prior accident year development. We continue to focus on our loss reserve analysis, attempting to enhance accuracy and to further our understanding of our loss costs.

Underwriting Expenses

On a year-over-year basis, our total underwriting expenses increased 21% in 2018 and 16% in 2017, primarily reflecting an increase in our advertising spend and employee-related infrastructure costs. Our advertising expenditures increased 41% and 33% in 2018 and 2017, respectively. We will continue to invest in advertising as long as we generate sales at a cost below the maximum amount we are willing to spend to acquire a new customer. Nevertheless, our underwriting expense ratios (i.e., policy acquisition costs and other underwriting expenses, less fees and other revenues, expressed as a percentage of net premiums earned) were relatively flat, in part reflecting the increase in earned premium per policy we realized during the same periods.

C. Growth

For our underwriting operations, we analyze growth in terms of both premiums and policies. Net premiums written represent the premiums from policies written during the period less any premiums ceded to reinsurers. Net premiums earned, which are a function of the premiums written in the current and prior periods, are earned as revenue over the life of the policy using a daily earnings convention. Policies in force, our preferred measure of growth since it removes the variability due to rate changes or mix shifts, represent all policies under which coverage was in effect as of the end of the period specified.

For the years ended December 31, (\$ in millions)	2018		2017		2016	
	\$	% Growth	\$	% Growth	\$	% Growth
NET PREMIUMS WRITTEN						
Personal Lines						
Agency	\$13,562.3	16%	\$11,685.4	16%	\$10,107.6	10%
Direct	13,595.3	21	11,243.0	16	9,711.9	15
Total Personal Lines	27,157.6	18	22,928.4	16	19,819.5	12
Commercial Lines	3,996.4	28	3,112.7	20	2,598.3	20
Property	1,455.9	33	1,091.0	17	935.7	NA
Total underwriting operations	\$32,609.9	20%	\$27,132.1	16%	\$23,353.5	14%

NET PREMIUMS EARNED						
Personal Lines						
Agency	\$13,017.2	16%	\$11,177.6	14%	\$ 9,791.7	7%
Direct	13,017.5	21	10,769.6	15	9,396.5	15
Total Personal Lines	26,034.7	19	21,947.2	14	19,188.2	11
Commercial Lines	3,610.9	29	2,793.9	15	2,421.3	21
Property	1,287.7	30	988.8	14	864.5	NA
Total underwriting operations	\$30,933.3	20%	\$25,729.9	14%	\$22,474.0	13%

December 31, (# in thousands)	2018		2017		2016	
	#	% Growth	#	% Growth	#	% Growth
POLICIES IN FORCE						
Agency auto	6,358.3	12%	5,670.7	12%	5,045.4	7%
Direct auto	7,018.5	16	6,039.1	13	5,348.3	9
Total auto	13,376.8	14	11,709.8	13	10,393.7	8
Special lines ¹	4,382.2	0	4,365.7	2	4,263.1	4
Personal Lines	17,759.0	10%	16,075.5	10%	14,656.8	6%
Commercial Lines	696.9	8%	646.8	6%	607.9	9%
Property	1,936.5	32%	1,461.7	22%	1,201.9	12%

NA = not applicable since we began reporting our Property business as a segment on April 1, 2015, upon acquisition of a controlling interest in ARX; Property business written prior to that date was negligible.

¹Includes insurance for motorcycles, watercraft, RVs, and similar items.

At year-end 2018, we had approximately 2.2 million more policies in force than the year-ended 2017. The increase reflects both an increase in new applications (i.e., policies sold) and lengthening retention on a trailing 12-month basis in our vehicle businesses.

Although new policies are necessary to maintain a growing book of business, we continue to recognize the importance of retaining our current customers as a critical component of our continued growth. As shown in the tables below, we measure retention by policy life expectancy. We disclose our changes in policy life expectancy using a trailing 12-month period, since we believe this measure is indicative of recent experience, mitigates the effects of month-to-month variability, and addresses seasonality. We also review our customer retention for our personal auto products using a trailing 3-month period. Although using a trailing 3-month measure does not address seasonality and can reflect more volatility, this measure is more responsive to current experience and can be an indicator of how our retention rates are moving.

To analyze growth, we review new policies, rate levels, and the retention characteristics of our segments.

D. Personal Lines

The following table shows our year-over-year changes for our Personal Lines business:

	Growth Over Prior Year		
	2018	2017	2016
APPLICATIONS			
New	17%	15%	12%
Renewal	11	7	5
WRITTEN PREMIUM PER POLICY – AUTO	4	5	5
RETENTION MEASURES – AUTO			
Policy life expectancy			
Trailing 3-months	(4)	12	3
Trailing 12-months	3	7	5

In our Personal Lines business, the increase in both new and renewal applications during 2018 primarily reflected increases in our personal auto products, which we attribute to our competitive product offerings and position in the marketplace. The Direct business contributed more to our auto growth, primarily due to an increase in our advertising spend in 2018 and lower new applications in the first half of 2017, following a reduction of our advertising spend during 2016. Rate increases taken in our auto businesses over the trailing 12-month period, in addition to a shift in business mix, contributed to the increase we experienced in written premium per policy for 2018. For the year ended December 31, 2018, written premium per policy increased 4% in both the new and renewal auto businesses, compared to 2017. We believe that our Destination Era efforts, including our efforts to improve the customer experience, continue to have a positive impact on our retention and we will continue to focus our efforts on retention. During 2018, we experienced trailing 12-month policy life expectancy growth, although at a lower growth rate than the prior two years, and a decline in our trailing 3-month measure. The decline in policy life expectancy growth is due, in part, to targeted underwriting changes introduced in our new product model.

We report our Agency and Direct business results separately as components of our Personal Lines segment to provide further understanding of our products by distribution channel.

The Agency Business

	Growth Over Prior Year		
	2018	2017	2016
Auto: new applications	14%	21%	18%
renewal applications	12	7	2
written premium per policy	5	6	5
Auto retention measures:			
policy life expectancy – trailing 3-months	(2)	14	5
trailing 12-months	4	8	7

The Agency business includes business written by more than 35,000 independent insurance agencies that represent Progressive, as well as brokerages in New York and California. During 2018, we generated new Agency auto application growth in 45 states, including all of our top 10 largest Agency states. The new policy growth resulted from increases in demand from agents, as indicated by a 2% increase in our quote volume, as well as better meeting the needs of end consumers, as evidenced by a year-over-year increase of 12% in our rate of conversion (i.e., converting a quote to a sale). We had double-digit new auto application growth on a year-over-year basis in each of our consumer segments (e.g., inconsistently insured, consistently insured non-homeowners, homeowners who do not bundle auto and home, and

homeowners who bundle auto and home), with our bundled home and auto customers, the consumer segment we refer to as “Robinsons,” growing about three times faster than the other consumer segments combined, albeit on a smaller base.

Written premium per policy for new and renewal Agency auto business increased 6% and 5%, respectively, during 2018, compared to last year, primarily reflecting a shift in the mix of business toward higher premium coverages and rate increases taken during the year. We continued to see our 12-month retention metrics improve, with a decline in our 3-month metric, as previously discussed.

The Direct Business

	Growth Over Prior Year		
	2018	2017	2016
Auto: new applications	25%	16%	9%
renewal applications	15	9	10
written premium per policy	4	5	5
Auto retention measures:			
policy life expectancy – trailing 3-months	(5)	10	1
trailing 12-months	1	4	4

The Direct business includes business written directly by Progressive on the Internet, through mobile devices, and over the phone. During the current year, we generated Direct new auto application growth in all 50 states and the District of Columbia, resulting from year-over-year increases in our Direct auto quotes and rate of conversion by 10% and 14%, respectively.

New and renewal applications increased on a year-over-year basis during 2018, primarily reflecting our competitiveness in the marketplace and a 41% increase in advertising spend, which helped drive new business growth and also contributed to the total increase in our Direct business expense ratio during the year. Similar to the Agency business, we continued to grow our new Direct auto applications double digits across all consumer segments and, with the marketing investments that targeted auto/home bundlers, we grew our Direct Robinsons applications about two times faster than our other consumer segments, albeit on a smaller base.

Written premium per policy for both new and renewal Direct auto business increased 4% during 2018, compared to last year, primarily reflecting rate increases previously discussed. We will continue to focus our efforts on retention, especially given the year-over-year decrease in the trailing 3-month metric and the slowing growth in the trailing 12-month policy life expectancy.

E. Commercial Lines

	Growth Over Prior Year		
	2018	2017	2016
New applications	12%	1%	11%
Renewal applications	6	8	7
Written premium per policy	14	12	10
Policy life expectancy – trailing 12-months	1	(4)	6

Our Commercial Lines business operates in the business auto, for-hire transportation, contractor, for-hire specialty, tow, and for-hire livery markets and is primarily written in the agency channel. The preferred truck market, which is comprised of tenured financially responsible operators with strong safety records, is a subset of the for-hire transportation business market target.

Commercial Lines experienced solid year-over-year new application growth in 2018, reflecting increased quote volume and competitor rate increases. We continue to monitor the growth and profitability across all of our business market targets and will impose underwriting restrictions when we believe it is necessary to meet our profitability objectives. During 2018, we increased rates and experienced shifts in business mix, to higher premium segments, which contributed to the increase in our written premium per policy during the year. Our policy life expectancy increased slightly, primarily attributable to a shift in business mix and competitors taking higher rate increases.

At December 31, 2018, we insured transportation network company business in four states, with three states added in 2018. With the enforcement of the federal electronic logging device mandate, we have seen greater market acceptance of Smart Haul®, our usage-based insurance program for our for-hire transportation policyholders. We believe we are well positioned to offer competitive rates to the best owners/operators and small fleets through Smart Haul.

F. Property

	Growth Over Prior Year		
	2018	2017	2016 ¹
New applications	53%	48%	17%
Renewal applications	25	16	7
Written premium per policy	(3)	(5)	(7)

¹Property business prior to the April 1, 2015, acquisition of a controlling interest in ARX was negligible. 2016 new and renewal application growth was calculated using application counts from the last nine months of 2016, for comparability to application counts from 2015. Written premium per policy growth reflects 12 months of activity for 2016, compared to nine months for 2015.

Our Property business writes residential property insurance for homeowners, other property owners, and renters in the agency and direct channels. The significant growth in new applications is largely attributable to state expansion that occurred during 2018, 2017, and 2016, more competitive product offerings, and business we began writing when an unaffiliated carrier stopped offering homeowners insurance through our in-house agency during 2018, as well as momentum in growing Robinsons through our Platinum agency offering. The decrease in premium per policy continues to reflect a relatively higher percentage of renters policies, which have lower premiums per policy. Our core Property policies (e.g., home and condo insurance) had a slight increase in written premium per policy, compared to 2017.

In addition, the Property growth is benefiting from HomeQuote Explorer® (HQX), our direct online homeowner insurance shopping experience that was launched in March 2017. During 2018, we began offering the ability to buy certain of our homeowners policies online through the HQX platform. By the end of 2018, the online buy button functionality was offered in four states and we plan to expand to other states over time.

G. Litigation

The Progressive Corporation and/or its insurance subsidiaries are named as defendants in various lawsuits arising out of claims made under insurance policies issued by the subsidiaries in the ordinary course of business. We consider all legal actions relating to such claims in establishing our loss and loss adjustment expense reserves.

In addition, various Progressive entities are named as defendants in a number of alleged class action or individual lawsuits arising out of the operations of the insurance subsidiaries. These cases include those alleging damages as a result of our practices in evaluating or paying medical or injury claims or benefits, including, but not limited to, personal injury protection, medical payments, uninsured motorist/underinsured motorist (UM/UIM), and bodily injury benefits; labor rates paid to auto body repair shops; and cases challenging other aspects of our claims or marketing practices or other business operations. Other insurance companies face many of these same issues. During the last three years, we have settled several class action and individual lawsuits. These settlements did not have a material effect on our financial condition, cash flows, or results of operations. See *Note 12 – Litigation* for a more detailed discussion.

H. Income Taxes

A deferred tax asset or liability is a tax benefit or expense that is expected to be realized in a future tax return. At December 31, 2018, we reported a net deferred tax asset, and a net deferred tax liability at December 31, 2017. The change from a net deferred liability to a net deferred asset during the year was primarily attributable to equity net holding period losses and unrealized losses on fixed-income securities during the year, and an increase in unearned premiums (net of deferred acquisition costs) and in loss and loss adjustment expense reserves, due to continued growth of the business. We determined that we did not need a valuation allowance on our gross deferred tax assets for either year. Although realization of the gross deferred tax assets is not assured, management believes it is more likely than not that the gross deferred tax assets will be realized based on our expectation we will be able to fully utilize the deductions that are ultimately recognized for tax purposes.

At December 31, 2018 and 2017, we had net current income taxes payable of \$16.8 million and \$23.8 million, respectively, which were reported as part of “other liabilities.”

Our effective tax rate was 17% for 2018, compared to 25% and 28% for 2017 and 2016, respectively. The decrease in the effective rate during 2018, compared to 2017 and 2016, primarily reflects the reduction in the federal corporate income tax rate to 21%, from the prior 35%, under the legislation commonly known as the Tax Cuts and Jobs Act of 2017 (the “2017 TAX Act”). The decrease in the effective rate during 2017, compared to 2016, primarily reflects the recognition of \$99.5 million of federal tax benefits from the revaluation of our net deferred tax liabilities to the new federal corporate income tax rate of 21%, from the previous rate of 35% under the 2017 Tax Act. The effective rate in 2018, 2017, and 2016, also reflects \$71.0 million, \$48.7 million, and \$58.7 million, respectively, of federal tax benefits resulting from our investments in renewable energy; all of the expected tax benefits from these investments were recorded in our income tax provision during 2018, 2017, and 2016, respectively. The renewable energy investments include transactions with a single sponsor that resulted in tax benefits of approximately \$150 million during those years. The sponsor, its owners, and certain affiliates are the subject of federal investigations involving allegations of fraud in connection with its operations and the establishment of certain tax credit funds. We cannot predict if these matters will lead to an impact on the validity of any portion of these federal tax credits. See *Note 5 – Income Taxes* for additional information.

Consistent with prior years, we had no uncertain tax positions.

See *Note 5 – Income Taxes* for further information.

IV. RESULTS OF OPERATIONS – INVESTMENTS

A. Portfolio Summary

At year-end 2018, the fair value of our investment portfolio was \$33.6 billion, approximately 23%, or \$6.3 billion, greater than at year-end 2017. The increase primarily reflected operating and investment returns and our debt and preferred stock issuances, in part offset by our use of capital during the year, including debt servicing, shareholder dividends, and our increase in ownership of ARX.

Our investment income (interest and dividends) increased 46% in 2018 and 18% in 2017, as compared to the prior years, reflecting higher average assets and yields in both periods. In 2018, 2017, and 2016, we recognized realized gains on security sales. Beginning in 2018, we were required to report the change in value of our equity securities as part of our net holding period gains (losses), whereas previously the change was a component of other comprehensive income. This reclassification will create more volatility in the total net realized gains (losses) we report. Included in the impairment losses we recognized during 2018, 2017, and 2016, were write-downs of \$68.3 million, \$49.6 million, and \$59.7 million, respectively, related to “other asset” impairments on renewable energy tax credit fund investments.

B. Investment Results

Our management philosophy governing the portfolio is to evaluate investment results on a total return basis. The fully taxable equivalent (FTE) total return includes recurring investment income, adjusted to a fully taxable amount for certain securities that receive preferential tax treatment (e.g., municipal securities), and total net realized, and changes in total unrealized, gains (losses) on securities.

The following summarizes investment results for the years ended December 31:

	2018	2017	2016
Pretax recurring investment book yield	2.8%	2.4%	2.3%
Weighted average FTE book yield	2.9	2.6	2.6
FTE total return:			
Fixed-income securities	1.5	3.0	2.9
Common stocks	(4.4)	21.8	12.8
Total portfolio	1.2%	5.2%	4.0%

Market volatility picked up in 2018, which contributed to lower returns for both fixed income and equities, compared to the prior year. Fixed-income returns were hindered by both rising rates and widening credit spreads (more yield on non-treasury bonds relative to treasury securities of similar maturity). The equity market ended the year lower following the significant decline during the fourth quarter 2018. In 2017, both fixed-income securities and common stocks had higher returns than the prior year, which reflected a narrowing of credit spreads that resulted in increased valuations, despite the rise in benchmark treasury rates, and a higher overall equity market return during the year.

A further break-down of our FTE total returns for our portfolio, including the net gains (losses) on our derivative positions, for the years ended December 31, follows:

	2018	2017	2016
Fixed-income securities:			
U.S. Treasury Notes	1.3%	1.2%	(0.5)%
Municipal bonds	2.3	4.9	2.3
Corporate bonds	1.0	3.0	4.6
Residential mortgage-backed securities	2.7	4.7	3.5
Commercial mortgage-backed securities	2.1	4.0	3.9
Other asset-backed securities	2.2	1.8	1.8
Preferred stocks	(1.9)	12.9	11.0
Short-term investments	2.0	1.2	0.5
Common stocks:			
Indexed	(4.1)	22.7	12.4
Actively managed	(8.5)	7.8	20.8

C. Portfolio Allocation

The composition of the investment portfolio at December 31, was:

(\$ in millions)	Fair Value	% of Total Portfolio	Duration (years)	Rating ¹
2018				
Fixed maturities	\$28,111.5	83.7%	2.9	AA-
Nonredeemable preferred stocks	1,033.9	3.1	2.6	BBB-
Short-term investments	1,795.9	5.4	0.1	AA
Total fixed-income securities	30,941.3	92.2	2.8	AA-
Common equities	2,626.1	7.8	na	na
Total portfolio ^{2,3}	\$33,567.4	100.0%	2.8	AA-
2017				
Fixed maturities	\$20,201.7	74.1%	2.8	AA-
Nonredeemable preferred stocks	803.8	2.9	3.3	BBB-
Short-term investments	2,869.4	10.5	<0.1	AA-
Total fixed-income securities	23,874.9	87.5	2.5	AA-
Common equities	3,399.8	12.5	na	na
Total portfolio ^{2,3}	\$27,274.7	100.0%	2.5	AA-

na = not applicable

¹Represents ratings at December 31, 2018 and 2017. Credit quality ratings are assigned by nationally recognized statistical rating organizations. To calculate the weighted average credit quality ratings, we weight individual securities based on fair value and assign a numeric score of 0-5, with non-investment-grade and non-rated securities assigned a score of 0-1. To the extent the weighted average of the ratings falls between AAA and AA+, we assign an internal rating of AAA-.

²Our portfolio reflects the effect of unsettled security transactions; at December 31, 2018, \$5.9 million was included in "other liabilities," compared to \$5.8 million in "other assets" at December 31, 2017.

³The total fair value of the portfolio at December 31, 2018 and 2017, included \$2.9 billion and \$1.6 billion, respectively, of securities held in a consolidated, non-insurance subsidiary of the holding company, net of any unsettled security transactions.

Our asset allocation strategy is to maintain 0-25% of our portfolio in Group I securities, with the balance (75%-100%) of our portfolio in Group II securities.

We define Group I securities to include:

- common equities,
- nonredeemable preferred stocks,
- redeemable preferred stocks, except for 50% of investment-grade redeemable preferred stocks with cumulative dividends, which are included in Group II, and
- all other non-investment-grade fixed-maturity securities.

Group II securities include:

- short-term securities, and
- all other fixed-maturity securities, including 50% of investment-grade redeemable preferred stocks with cumulative dividends.

We believe this asset allocation strategy allows us to appropriately assess the risks associated with these securities for capital purposes and is in line with the treatment by our regulators.

The following table shows the composition of our Group I and Group II securities at December 31:

(\$ in millions)	2018		2017	
	Fair Value	% of Total Portfolio	Fair Value	% of Total Portfolio
Group I securities:				
Non-investment-grade fixed maturities	\$ 754.8	2.2%	\$ 404.8	1.5%
Redeemable preferred stocks ¹	154.1	0.5	147.4	0.5
Nonredeemable preferred stocks	1,033.9	3.1	803.8	2.9
Common equities	2,626.1	7.8	3,399.8	12.5
Total Group I securities	4,568.9	13.6	4,755.8	17.4
Group II securities:				
Other fixed maturities ²	27,202.6	81.0	19,649.5	72.1
Short-term investments	1,795.9	5.4	2,869.4	10.5
Total Group II securities	28,998.5	86.4	22,518.9	82.6
Total portfolio	\$33,567.4	100.0%	\$ 27,274.7	100.0%

¹Includes non-investment-grade redeemable preferred stocks of \$69.9 million and \$83.8 million at December 31, 2018 and 2017, respectively.

²Includes investment-grade redeemable preferred stocks, with cumulative dividends, of \$84.2 million and \$63.6 million at December 31, 2018 and 2017, respectively.

To determine the allocation between Group I and Group II, we use the credit ratings from models provided by the National Association of Insurance Commissioners (NAIC) for classifying our residential and commercial mortgage-backed securities, excluding interest-only securities, and the credit ratings from nationally recognized statistical rating organizations (NRSROs) for all other debt securities. NAIC ratings are based on a model that considers the book price of our securities when assessing the probability of future losses in assigning a credit rating. As a result, NAIC ratings can vary from credit ratings issued by NRSROs. Management believes NAIC ratings more accurately reflect our risk profile when determining the asset allocation between Group I and II securities.

We reduced our exposure to common equities during both the first and third quarter of 2018 by approximately 10% in each quarter by selling securities in our indexed common stock portfolio and re-allocating the funds to our fixed-maturity portfolio to protect our balance sheet from potential equity market declines from elevated valuation levels.

Unrealized Gains and Losses

As of December 31, 2018, our fixed-maturity portfolio had pretax net unrealized losses, recorded as part of accumulated other comprehensive income, of \$134.2 million, compared to \$8.4 million at December 31, 2017. The change reflects valuation declines in all sectors during the year, most notably in our U.S. Treasury, corporate, and commercial mortgage-backed portfolios, reduced by net realized losses on sales of securities primarily in our U.S. Treasury portfolio.

See *Note 2 – Investments* for further details on our gross unrealized gains and losses.

Holding Period Gains and Losses

The following table provides the gross and net holding period gain (loss) balance and activity during 2018:

(millions)	Gross Holding Period Gains	Gross Holding Period Losses	Net Holding Period Gains (Losses)
Balance at December 31, 2017			
Hybrid fixed-maturity securities	\$ 0.6	\$ (0.4)	\$ 0.2
Equity securities	2,015.0	(9.0)	2,006.0
Total holding period securities	2,015.6	(9.4)	2,006.2
Current year change in holding period securities			
Hybrid fixed-maturity securities	(0.5)	(9.9)	(10.4)
Equity securities	(446.3)	(51.2)	(497.5)
Total changes in holding period securities	(446.8)	(61.1)	(507.9)
Balance at December 31, 2018			
Hybrid fixed-maturity securities	0.1	(10.3)	(10.2)
Equity securities	1,568.7	(60.2)	1,508.5
Total holding period securities	\$1,568.8	\$(70.5)	\$1,498.3

Changes in holding period gains (losses) similar to unrealized gains (losses) in our fixed-maturity portfolio, are the result of changes in market performance as well as sales of securities based on various portfolio management decisions.

Other-Than-Temporary Impairment (OTTI)

Realized losses may include write-downs of securities determined to have had other-than-temporary declines in fair value. In light of the new accounting guidance effective for 2018, we are no longer required to analyze our equity securities for OTTI.

The write-down activity recorded in the comprehensive income statements for the years ended December 31, was as follows:

(millions)	Total Write- downs	Write-downs on Securities Sold	Write-downs on Securities Held at Period End
2018			
Total investment portfolio	\$ 0	\$ 0	\$ 0
Other assets ¹	68.3	0	68.3
Total write-downs	\$68.3	\$ 0	\$68.3
2017			
Commercial mortgage-backed securities	\$ 0.4	\$ 0	\$ 0.4
Common equities	14.5	(3.3)	11.2
Total investment portfolio	14.9	(3.3)	11.6
Other assets ¹	49.6	0	49.6
Total write-downs	\$64.5	\$(3.3)	\$61.2
2016			
Redeemable preferred stocks ²	\$25.4	\$(0.1)	\$25.3
Common equities	1.7	(1.4)	0.3
Total investment portfolio	27.1	(1.5)	25.6
Other assets ¹	59.7	0	59.7
Total write-downs	\$86.8	\$(1.5)	\$85.3

¹Reflects impairments of renewable energy investments under which the future pretax cash flows are expected to be less than the carrying value of the assets. See *Note 5 – Income Taxes* for the tax benefits related to these investments.

²Reflects a change in our intent to hold the securities to a recovery of their respective cost bases.

See *Critical Accounting Policies, Other-Than-Temporary Impairment*, for a complete discussion on our analysis regarding our treatment of OTTI.

Fixed-Income Securities

The fixed-income portfolio is managed internally and includes fixed-maturity securities, short-term investments, and nonredeemable preferred stocks. A primary exposure for the fixed-income portfolio is interest rate risk, which includes the change in value resulting from movements in the underlying market rates of debt securities held. We manage this risk by maintaining the portfolio's duration (a measure of the portfolio's exposure to changes in interest rates) between 1.5 and 5 years. The duration of the fixed-income portfolio was 2.8 years at December 31, 2018, compared to 2.5 years at December 31, 2017. The increase in duration reflects our proactive monitoring and reacting to the changing interest rate environment while maintaining a conservative duration position to limit potential declines in portfolio value from increases in rates. The distribution of duration and convexity (i.e., a measure of the speed at which the duration of a security is expected to change based on a rise or fall in interest rates) is monitored on a regular basis.

The duration distribution of our fixed-income portfolio, excluding short-term investments, represented by the interest rate sensitivity of the comparable benchmark U.S. Treasury Notes, at December 31, was:

Duration Distribution	2018	2017
1 year	19.4%	19.8%
2 years	17.0	15.7
3 years	27.0	27.0
5 years	22.8	24.1
7 years	10.4	8.7
10 years	3.5	4.7
20 years	(0.1)	0
Total fixed-income portfolio	100.0%	100.0%

The negative duration in the 20-year category in 2018 arises from the variable rate nature of the dividends on some of our preferred stocks. If not called at their call dates, the dividends on these securities will reset from a fixed rate to a floating rate, which could cause these securities to trade at a discount and, therefore, with a negative duration as the securities' valuation will likely rise if the floating rate moves higher.

Another primary exposure related to the fixed-income portfolio is credit risk. This risk is managed by maintaining an A+ minimum average portfolio credit quality rating, as defined by NRSROs, which was successfully maintained during both 2018 and 2017.

The credit quality distribution of the fixed-income portfolio at December 31, was:

Rating	2018	2017
AAA	50.5%	45.8%
AA	10.8	13.6
A	8.4	12.2
BBB	25.9	23.2
Non-investment grade/non-rated: ¹		
BB	3.0	3.6
B	1.1	1.0
CCC and lower	0.1	0.1
Non-rated	0.2	0.5
Total fixed-income portfolio	100.0%	100.0%

¹The ratings in the table above are assigned by NRSROs. The non-investment grade fixed-income securities based upon our Group I classification represented 3.6% of the total fixed-income portfolio at December 31, 2018, compared to 2.6% at December 31, 2017.

The changes in credit quality profile from December 31, 2017, were the result of transactions in our portfolio that shifted the mix within the various credit categories.

Our portfolio is also exposed to concentration risk. Our investment constraints limit investment in a single issuer, other than U.S. Treasury Notes or a state's general obligation bonds, to 2.5% of shareholders' equity, while the single issuer guideline on preferred stocks and/or non-investment-grade debt is 1.25% of shareholders' equity. Additionally, the guideline applicable to any state's general obligation bonds is 6% of shareholders' equity. We consider concentration risk both overall and in the context of individual

asset classes and sectors, including but not limited to common equities, residential and commercial mortgage-backed securities, municipal bonds, and high-yield bonds. At December 31, 2018 and 2017, we were within all of the constraints described above.

We monitor prepayment and extension risk, especially in our structured product and preferred stock portfolios. Prepayment risk includes the risk of early redemption of security principal that may need to be reinvested at less attractive rates. Extension risk includes the risk that a security will not be redeemed when anticipated, and that the security that is extended will have a lower yield than a security we might be able to obtain by reinvesting the expected redemption principal. Our holdings of different types of structured debt and preferred securities help manage these risks. During 2018, we did not experience significant adverse prepayment or extension of principal relative to our cash flow expectations in the portfolio.

Liquidity risk is another risk factor we monitor. Our overall portfolio remains very liquid and we believe that it is sufficient to meet expected near-term liquidity requirements. The short-to-intermediate duration of our portfolio provides a source of liquidity, as we expect approximately \$4.5 billion, or 23.6%, of principal repayment from our fixed-income portfolio, excluding U.S. Treasury Notes and short-term investments, during 2019. Cash from interest and dividend payments provides an additional source of recurring liquidity.

The duration of our U.S. government obligations, which are included in the fixed-income portfolio, was comprised of the following at December 31, 2018:

(\$ in millions)	Fair Value	Duration (years)
<u>U.S. Treasury Notes</u>		
Less than one year	\$ 375.4	0.8
One to two years	1,740.2	1.7
Two to three years	2,592.0	2.6
Three to five years	3,622.9	4.1
Five to seven years	915.7	5.7
Seven to ten years	670.3	8.1
Total U.S. Treasury Notes	<u>\$9,916.5</u>	3.6

As of December 31, 2018, we had no interest rate swaps or treasury futures.

ASSET-BACKED SECURITIES

Included in the fixed-income portfolio are asset-backed securities, which were comprised of the following at December 31:

(\$ in millions)	Fair Value	Net Unrealized Gains (Losses)	% of Asset-Backed Securities	Duration (years)	Rating (at period end)
2018					
Residential mortgage-backed securities:					
Collateralized mortgage obligations	\$ 435.3	\$ (2.4)	5.7%	1.5	AA
Home equity (sub-prime bonds)	299.1	3.3	3.9	0.4	A-
Residential mortgage-backed securities	734.4	0.9	9.6	1.0	AA-
Commercial mortgage-backed securities	3,301.6	(31.2)	43.4	2.7	AA-
Other asset-backed securities:					
Automobile	1,609.0	(3.3)	21.1	0.9	AAA-
Credit card	644.5	(0.5)	8.5	0.5	AAA
Student loan	475.7	(1.0)	6.3	1.1	AA+
Other ¹	848.1	(3.4)	11.1	1.6	AA-
Other asset-backed securities	3,577.3	(8.2)	47.0	1.0	AA+
Total asset-backed securities	\$7,613.3	\$(38.5)	100.0%	1.7	AA
2017					
Residential mortgage-backed securities:					
Collateralized mortgage obligations	\$ 404.3	\$ 0	6.7%	1.1	A+
Home equity (sub-prime bonds)	432.4	7.9	7.1	0.2	BBB+
Residential mortgage-backed securities	836.7	7.9	13.8	0.7	A-
Commercial mortgage-backed securities	2,758.6	(1.5)	45.6	2.9	A
Other asset-backed securities:					
Automobile	1,182.2	(1.8)	19.5	0.7	AAA-
Credit card	95.8	(0.1)	1.6	0.5	AAA
Student loan	538.7	2.3	8.9	1.1	AA-
Other ¹	638.0	(0.4)	10.6	2.2	A+
Other asset-backed securities	2,454.7	0	40.6	1.2	AA+
Total asset-backed securities	\$6,050.0	\$ 6.4	100.0%	1.9	A+

¹Includes equipment leases, whole business securitizations, and other types of structured debt.

The increase in asset-backed securities since December 31, 2017, is primarily due to purchases of commercial mortgage-backed securities, automobile receivables, credit card receivables, and other asset-backed securities, partially offset by maturities and security sales in the residential mortgage-backed sector. See below for a further discussion of our residential and commercial mortgage-backed securities. The other asset-backed securities are not included in the discussion below due to the high credit quality, short duration, and security structure of those instruments.

Residential Mortgage-Backed Securities (RMBS) The following table details the credit quality rating and fair value of our RMBSs, along with the loan classification and a comparison of the fair value at December 31, 2018, to our original investment value (adjusted for returns of principal, amortization, and write-downs):

Residential Mortgage-Backed Securities (at December 31, 2018)							
(\$ in millions) Rating ¹	Collateralized Mortgage Obligations					Total	% of Total
	Home Equity	Agency Pass-Through	Non-Agency Prime	Alt-A ²	Government/GSE ³		
AAA	\$ 47.9	\$26.6	\$265.8	\$ 4.4	\$44.7	\$389.4	53.0%
AA	82.9	0	12.0	15.5	0.8	111.2	15.1
A	51.2	0	3.0	0	0	54.2	7.4
BBB	27.3	0	5.7	1.1	0	34.1	4.6
Non-investment grade/non-rated:							
BB	27.6	0	2.2	0.7	0	30.5	4.2
B	35.0	0	0	0.8	0	35.8	4.9
CCC and lower	12.8	0	5.2	0	0	18.0	2.5
Non-rated	14.4	0	7.1	39.7	0	61.2	8.3
Total fair value	\$299.1	\$26.6	\$301.0	\$62.2	\$45.5	\$734.4	100.0%
Increase (decrease) in value	1.1%	(3.7)%	(0.4)%	1.7%	(2.7)%	0.1%	

¹The credit quality ratings in the table above are assigned by NRSROs; when we assign the NAIC ratings for our RMBSs, \$131.8 million of our non-investment-grade securities are rated investment grade and classified as Group II and \$13.7 million, or 1.9% of our total RMBSs, are not rated by the NAIC and are classified as Group I.

²Represents structured securities with primary residential loans as collateral for which documentation standards for loan approval were less stringent than conventional loans; the collateral loans are often referred to as low documentation or no documentation loans.

³The securities in this category are insured by a Government Sponsored Entity (GSE) and/or collateralized by mortgage loans insured by the Federal Housing Administration (FHA) or the U.S. Department of Veteran Affairs (VA).

Our collateralized mortgage obligation (CMO) portfolio is primarily composed of non-GSE/FHA/VA mortgage securities. The majority of our portfolio consists of older deals with predictable prepayment speeds, high levels of credit support, and stable delinquency trends. During the year, we purchased well-structured new issue positions backed by high-quality collateral. Our RMBS portfolio decreased in value during the year due to security maturities and principal repayments.

Commercial Mortgage-Backed Securities (CMBS) The following table details the credit quality rating and fair value of our CMBSs, along with a comparison of the fair value at December 31, 2018, to our original investment value (adjusted for returns of principal, amortization, and write-downs):

Commercial Mortgage-Backed Securities (at December 31, 2018)				
(\$ in millions) Rating ¹	Multi-Borrower	Single-Borrower	Total	% of Total
	AAA	\$242.0	\$ 937.2	\$1,179.2
AA	119.2	780.5	899.7	27.3
A	79.7	472.9	552.6	16.7
BBB	37.0	499.0	536.0	16.2
Non-investment grade/non-rated:				
BB	0	121.5	121.5	3.7
B	0.7	11.9	12.6	0.4
Total fair value	\$478.6	\$2,823.0	\$3,301.6	100.0%
Increase (decrease) in value	(0.1)%	(1.1)%	(0.9)%	

¹The credit quality ratings in the table above are assigned by NRSROs; when we assign the NAIC ratings for our CMBSs, \$124.3 million of our non-investment-grade securities are rated investment grade and classified as Group II and \$9.8 million, or 0.3% of our total CMBSs, are not rated by the NAIC and are classified as Group I.

In our CMBS bond portfolio, our focus continues to be on single-borrower transactions, which represented 85.5% of the portfolio at December 31, 2018. During the year, we also selectively added multifamily bonds, seasoned conduit bonds from vintages with conservative underwriting, and bonds defeased by U.S. Treasuries. During the year, we increased our CMBS bond portfolio by \$572.6 million on a cost basis. We decreased the duration in our CMBS bond portfolio from 2.9 to 2.7

years during the year as both seasoned fixed-rate and low-duration floating-rate securities were added to the portfolio. The average credit quality was AA- at December 31, 2018 and A at December 31, 2017.

MUNICIPAL SECURITIES

Included in the fixed-income portfolio at December 31, 2018 and 2017, were \$1,649.1 million and \$2,297.1 million, respectively, of state and local government obligations. These securities had a duration of 2.9 years and an overall credit quality rating of AA+ (excluding the benefit of credit support from bond insurance) at December 31, 2018, compared to 2.7 years and AA at December 31, 2017. These securities had net unrealized losses of \$5.5 million at December 31, 2018, compared to net unrealized gains of \$11.4 million at December 31, 2017.

The following table details the credit quality rating of our municipal securities at December 31, 2018, without the benefit of credit or bond insurance:

(millions) Rating	General Obligations	Revenue Bonds	Total
AAA	\$248.0	\$395.2	\$ 643.2
AA	421.1	526.3	947.4
A	1.0	39.3	40.3
BBB	4.0	14.2	18.2
Total	\$674.1	\$975.0	\$1,649.1

Included in revenue bonds were \$736.5 million of single-family housing revenue bonds issued by state housing finance agencies, of which \$537.3 million were supported by individual mortgages held by the state housing finance agencies and \$199.2 million were supported by mortgage-backed securities. Of the programs supported by mortgage-backed securities, approximately 27% were collateralized by Fannie Mae and Freddie Mac mortgages; the remaining 73% were collateralized by Ginnie Mae mortgages, which are fully guaranteed by the U.S. government. Of the programs supported by individual mortgages held by the state housing finance agencies, the overall credit quality rating was AA+. Most of these mortgages were supported by FHA, VA, or private mortgage insurance providers.

We reduced our holdings of tax-exempt municipal bonds during 2018, as the new corporate tax rate we use to value our tax-exempt bonds rendered them less attractive relative to alternative taxable investments.

CORPORATE SECURITIES

Included in our fixed-income securities at December 31, 2018 and 2017, were \$8,694.3 million and \$4,997.7 million, respectively, of corporate securities. These securities had a duration of 3.3 years and 2.6 years at December 31, 2018 and 2017, respectively, and an overall credit quality rating of BBB at both December 31, 2018 and 2017. These securities had net unrealized losses of \$111.7 million and net unrealized gains of \$0.4 million at December 31, 2018 and 2017, respectively.

We increased the size of our corporate bond portfolio in 2018 as we took advantage of market volatility to add exposure at attractive levels.

The table below shows the exposure break-down by sector and rating at year-end:

(millions) Rating	Consumer	Industrial	Communication	Financial Services	Agency	Technology	Basic Materials	Energy	Total
AAA	\$ 0	\$ 0	\$ 0	\$ 53.1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 53.1
AA	0	0	0	264.9	0.7	39.4	0	0.1	305.1
A	186.5	147.7	156.0	745.9	0	1.7	29.5	3.6	1,270.9
BBB	2,905.2	902.5	481.3	856.5	0	648.0	200.8	339.5	6,333.8
Non-investment grade/ non-rated:									
BB	14.2	112.9	140.8	19.0	0	118.2	18.1	57.5	480.7
B	99.9	58.6	0	43.7	0	9.3	17.1	22.1	250.7
Total fair value	\$3,205.8	\$1,221.7	\$778.1	\$1,983.1	\$0.7	\$816.6	\$265.5	\$422.8	\$8,694.3

PREFERRED STOCKS – REDEEMABLE AND NONREDEEMABLE

We hold both redeemable (i.e., mandatory redemption dates) and nonredeemable (i.e., perpetual with call dates) preferred stocks. At December 31, 2018, we held \$238.3 million in redeemable preferred stocks and \$1,033.9 million in nonredeemable preferred stocks, compared to \$211.0 million and \$803.8 million, respectively, at December 31, 2017. At December 31, 2018, our preferred stock portfolio had net unrealized gains of \$2.4 million and net holding period gains of \$23.5 million recorded as part of net realized gains (losses), compared to \$121.5 million of net unrealized gains at December 31, 2017.

Our preferred stock securities had a negative return in 2018 as their high level of income was not able to offset spread widening. More volatile sectors, such as equities and preferred stocks, traded down at the end of the year as concerns rose about a global economic slowdown and other geopolitical issues. We came into the year with a low allocation but increased it in the later part of the year by slowly adding to the portfolio as spreads widened.

Our preferred stock portfolio had a duration of 2.4 years at December 31, 2018, compared to 2.9 years at December 31, 2017. The majority of our preferred securities have fixed-rate dividends until a call date and then, if not called, convert to floating-rate dividends. The interest rate duration of our preferred securities is calculated to reflect the call, floor, and floating rate features. Although a preferred security will remain outstanding if not called, its interest rate duration will reflect the variable nature of the dividend. The overall credit quality rating was BBB- at both December 31, 2018 and 2017. Our non-investment-grade preferred stocks were primarily with issuers that maintain investment-grade senior debt ratings.

The table below shows the exposure break-down by sector and rating at year-end:

Preferred Stocks (at December 31, 2018)							
(millions) Rating	Financial services				Industrials	Utilities	Total
	U.S. Banks	Foreign Banks	Insurance	Other Financial			
A	\$ 75.0	\$ 0	\$ 0	\$ 9.9	\$ 0	\$ 0	\$ 84.9
BBB	519.4	0	98.6	51.4	119.9	44.8	834.1
Non-investment grade/non-rated:							
BB	147.9	72.8	29.8	0	40.2	0	290.7
B	0	0	0	32.4	0	0	32.4
Non-rated	0	0	0	25.1	5.0	0	30.1
Total fair value	\$742.3	\$72.8	\$128.4	\$118.8	\$165.1	\$44.8	\$1,272.2

We also face the risk that dividend payments on our preferred stock holdings could be deferred for one or more periods or skipped entirely. As of December 31, 2018, all of our preferred securities continued to pay their dividends in full and on time. Approximately 79% of our preferred stock securities pay dividends that have tax preferential characteristics, while the balance pay dividends that are fully taxable.

Common Equities

Common equities, as reported on the balance sheets at December 31, were comprised of the following:

(\$ in millions)	2018		2017	
Indexed common stocks	\$2,480.2	94.4%	\$3,248.4	95.6%
Managed common stocks	145.6	5.6	151.1	4.4
Total common stocks	2,625.8	100.0	3,399.5	100.0
Other risk investments	0.3	0	0.3	0
Total common equities	\$2,626.1	100.0%	\$3,399.8	100.0%

In our indexed common stock portfolio, our individual holdings are selected based on their contribution to the correlation with the Russell 1000 Index. For both periods reported in the table above, the GAAP basis total return was within the desired tracking error when compared to the index. We held 803 out of 982, or 82%, of the common stocks comprising the index at December 31, 2018, which made up 94% of the total market capitalization of the index.

We reduced our exposure to common equities during both the first and third quarter of 2018 by approximately 10% in each quarter by selling securities in our indexed common stock portfolio and re-allocating the funds to our fixed-maturity portfolio to protect our balance sheet from potential equity market declines from elevated valuation levels.

The actively managed common stock portfolio, which is managed by an external investment manager had a cost basis of \$131.3 million and \$101.9 million at December 31, 2018 and 2017, respectively.

The following is a summary of our indexed common stock portfolio holdings by sector compared to the Russell 1000 Index composition:

Sector	Equity Portfolio Allocation at December 31, 2018	Russell 1000 Allocation at December 31, 2018	Russell 1000 Sector Return in 2018
Consumer discretionary	15.0%	15.3%	(0.1)%
Consumer staples	6.0	6.5	(9.7)
Financial services	19.7	19.9	(8.1)
Health care	13.8	14.2	6.5
Materials and processing	3.3	3.4	(16.3)
Other energy	4.9	5.0	(18.5)
Producer durable	10.3	9.9	(12.4)
Technology	21.8	20.6	(1.2)
Utilities	5.2	5.2	(0.1)
Total common stocks	100.0%	100.0%	(4.8)%

V. CRITICAL ACCOUNTING POLICIES

Progressive is required to make certain estimates and assumptions when preparing its financial statements and accompanying notes in conformity with GAAP. Actual results could differ from those estimates in a variety of areas. The two areas that we view as most critical with respect to the application of estimates and assumptions are the establishment of our loss reserves and the method of determining impairments in our investment portfolio.

A. Loss and LAE Reserves

Loss and loss adjustment expense (LAE) reserves represent our best estimate of our ultimate liability for losses and LAE relating to events that occurred prior to the end of any given accounting period but have not yet been paid. At December 31, 2018, we had \$12.8 billion of net loss and LAE reserves, which included \$10.2 billion of case reserves and \$2.6 billion of incurred but not recorded (IBNR) reserves. Personal auto liability and commercial auto liability reserves represent approximately 95% of our total carried net reserves. For this reason, the following discussion focuses on our vehicle businesses.

We do not review our loss reserves for the vehicle businesses on a macro level and, therefore, do not derive a companywide range of reserves to compare to a standard deviation. Instead, we review a large majority of our reserves by product/state subset combinations on a quarterly time frame, with the remaining reserves generally reviewed on a semiannual basis. A change in our scheduled reviews of a particular subset of the business depends on the size of the subset or emerging issues relating to the product or state. By reviewing the reserves at such a detailed level, we have the ability to identify and measure variances in the trends by state, product, and line coverage that otherwise would not be seen on a consolidated basis. We believe our comprehensive process of reviewing at a subset level provides us more meaningful estimates of our aggregate loss reserves.

In analyzing the ultimate accident year loss and LAE experience, our actuarial staff reviews in detail, at the subset level, frequency (number of losses per earned car year), severity (dollars of loss per each claim), and average premium (dollars of premium per earned car year), as well as the frequency and severity of our LAE costs. The loss ratio, a primary measure of loss experience, is equal to the product of frequency times severity divided by the average premium. The average premium for personal and commercial auto businesses is not estimated. The actual frequency experienced will vary depending on the change in mix of class of drivers insured by Progressive, but the frequency projections for these lines of business are generally stable in the short term, because a large majority of the parties involved in an accident report their claims within a short time period after the occurrence. The severity experienced by Progressive is much more difficult to estimate, especially for injury claims, since severity is affected by changes in underlying costs, such as medical costs, jury verdicts, and regulatory changes. In addition, severity will vary relative to the change in our mix of business by limit.

Assumptions regarding needed reserve levels made by the actuarial staff take into consideration influences on available historical data that reduce the predictiveness of our projected future loss costs. Internal considerations that are process-related, which generally result from changes in our claims organization's activities, include claim closure rates, the number of claims that are closed without payment, and the level of the claims representatives' estimates of the needed case reserve for each claim. These changes and their effect on the historical data are studied at the state level versus on a larger, less indicative, countrywide basis.

External items considered include the litigation atmosphere, changes in medical costs, and the availability of services to resolve claims. These also are better understood at the state level versus at a more macro, countrywide level.

At December 31, 2018, Progressive had \$15.4 billion of carried gross reserves and \$12.8 billion of net reserves (net of reinsurance recoverables on unpaid losses). Our net reserve balance implicitly assumes that the loss and LAE severity for accident year 2018 over accident year 2017 would be 5.3% higher for personal auto liability and 12.1% higher for commercial auto liability. As discussed above, the severity estimates are influenced by many variables that are difficult to precisely quantify and which influence the final amount of claims settlements. That, coupled with changes in internal claims practices, the legal environment, and state regulatory requirements, requires significant judgment in the estimate of the needed reserves to be carried.

The following table highlights what the effect would be to our carried loss and LAE reserves, on a net basis, as of December 31, 2018, if during 2019 we were to experience the indicated change in our estimate of severity for the 2018 accident year (i.e., claims that occurred in 2018):

(millions)	Estimated Changes in Severity for Accident Year 2018				
	-4%	-2%	As Reported	+2%	+4%
Personal auto liability	\$ 9,135.0	\$ 9,363.4	\$ 9,591.8	\$ 9,820.2	\$10,048.6
Commercial auto liability	2,552.5	2,589.7	2,626.9	2,664.1	2,701.3
Other ¹	609.4	609.4	609.4	609.4	609.4
Total	\$12,296.9	\$12,562.5	\$12,828.1	\$13,093.7	\$13,359.3

¹Includes reserves for personal and commercial auto physical damage claims and our non-auto lines of business; no change in estimates is presented due to the immaterial level of these reserves.

Note: Every percentage point change in our estimate of severity for the 2018 accident year would affect our personal auto liability reserves by \$114.2 million and our commercial auto reserves by \$18.6 million.

Our 2018 year-end loss and LAE reserve balance also includes claims from prior years. Claims that occurred in 2018, 2017, and 2016, in the aggregate, accounted for approximately 93% of our reserve balance. If during 2019 we were to experience the indicated change in our estimate of severity for the total of the prior three accident years (i.e., 2018, 2017, and 2016), the effect to our year-end 2018 reserve balances would be as follows:

(millions)	Estimated Changes in Severity for Accident Years 2018, 2017, and 2016				
	-4%	-2%	As Reported	+2%	+4%
Personal auto liability	\$ 8,371.8	\$ 8,981.8	\$ 9,591.8	\$10,201.8	\$10,811.8
Commercial auto liability	2,438.9	2,532.9	2,626.9	2,720.9	2,814.9
Other ¹	609.4	609.4	609.4	609.4	609.4
Total	\$11,420.1	\$12,124.1	\$12,828.1	\$13,532.1	\$14,236.1

¹Includes reserves for personal and commercial auto physical damage claims and our non-auto lines of business; no change in estimates is presented due to the immaterial level of these reserves.

Note: Every percentage point change in our estimate of severity for the 2018, 2017, and 2016 accident years would affect our personal auto liability reserves by \$305.0 million and our commercial auto reserves by \$47.0 million.

Our best estimate of the appropriate amount for our reserves as of year-end 2018 is included in our financial statements for the year. Our goal is to ensure that total reserves are adequate to cover all loss costs, while sustaining minimal variation from the time reserves are initially established until losses are fully developed. At the point in time when reserves are set, we have no way of knowing whether our reserve estimates will prove to be high or low, or whether one of the alternative scenarios discussed above is "reasonably likely" to occur. The above tables show the potential favorable or unfavorable development we will realize if our estimates miss by 2% or 4%.

B. Other-Than-Temporary Impairment (OTTI)

Net realized gains (losses) may include write-downs of securities determined to have had other-than-temporary declines in fair value. In light of the new accounting guidance effective for 2018, we are no longer required to analyze our equity securities for OTTI.

We routinely monitor our fixed-maturity portfolio for pricing changes that might indicate potential impairments and perform detailed reviews of securities with unrealized losses. In such cases, changes in fair value are evaluated to determine the extent to which such changes are attributable to: (i) fundamental factors specific to the issuer, such as financial conditions, business prospects, or other factors, (ii) market-related factors, such as interest rates, or (iii) credit-related losses, where the present value of cash flows expected to be collected is lower than the amortized cost basis of the security.

Fixed-maturity securities with declines attributable to issuer-specific fundamentals are reviewed to identify available evidence, circumstances, and influences to estimate the potential for, and timing of, recovery of the investment's impairment. An other-than-temporary impairment loss is deemed to have occurred when the potential for recovery does not satisfy the criteria set forth in the current accounting guidance.

When a security in our fixed-maturity portfolio has an unrealized loss and it is more likely than not that we will be required to sell the security, we write-down the security to its current fair value and recognize the entire unrealized loss through the comprehensive income statement as a realized loss. If a fixed-maturity security has an unrealized loss and it is more likely than not that we will hold the debt security until recovery (which could be maturity), then we determine if any of the decline in value is due to a credit loss (i.e., where the present value of cash flows expected to be collected is lower than the amortized cost basis of the security) and, if so, we will recognize that portion of the impairment in net income as part of the comprehensive income statement as a realized loss; any remaining unrealized loss on the security is considered to be due to other factors (e.g., interest rate and credit spread movements) and is reflected in other comprehensive income as part of shareholders' equity, along with unrealized gains or losses on fixed-maturity securities that are not deemed to be other-than-temporarily impaired.

The following table stratifies the gross unrealized losses in our fixed-maturity portfolio at December 31, 2018, by the duration in a loss position and magnitude of the loss as a percentage of the cost of the security:

(millions)	Fair Value	Total Gross Unrealized Losses	Decline of Investment Value of Greater Than 15%
Unrealized loss for less than 12 months	\$ 5,493.2	\$ 47.3	\$ 0
Unrealized loss for 12 months or greater	12,159.0	202.3	7.4
Total	\$17,652.2	\$249.6	\$7.4

We completed a thorough review of the existing securities in these loss categories and determined that, applying the procedures and criteria discussed above, these securities were not other-than-temporarily impaired. We also determined that it is more likely that we will not be required to sell these securities for the periods of time necessary to recover their respective cost bases, and that there are no additional credit-related impairments on our debt securities.

Since total unrealized losses are already a component of other comprehensive income and included in shareholders' equity, any recognition of these losses as additional OTTI losses would have no effect on our comprehensive income, book value, or reported investment total return.

Safe Harbor Statement Under the Private Securities Litigation Reform Act of 1995: Investors are cautioned that certain statements in this report not based upon historical fact are forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995. These statements often use words such as “estimate,” “expect,” “intend,” “plan,” “believe,” and other words and terms of similar meaning, or are tied to future periods, in connection with a discussion of future operating or financial performance. Forward-looking statements are based on current expectations and projections about future events, and are subject to certain risks, assumptions and uncertainties that could cause actual events and results to differ materially from those discussed herein. These risks and uncertainties include, without limitation, uncertainties related to estimates, assumptions, and projections generally; inflation and changes in general economic conditions (including changes in interest rates and financial markets); the possible failure of one or more governmental, corporate, or other entities to make scheduled debt payments or satisfy other obligations; our ability to access capital markets and financing arrangements when needed to support growth or other capital needs, and the favorable evaluations by credit and other rating agencies on which this access depends; the potential or actual downgrading by one or more rating agencies of our securities or governmental, corporate, or other securities we hold; the financial condition of, and other issues relating to the strength of and liquidity available to, issuers of securities held in our investment portfolios and other companies with which we have ongoing business relationships, including reinsurers and other counterparties to certain financial transactions or under certain government programs; the accuracy and adequacy of our pricing, loss reserving, and claims methodologies; the competitiveness of our pricing and the effectiveness of our initiatives to attract and retain more customers, including our efforts to enter into new business areas with which we have less experience; initiatives by competitors and the effectiveness of our response; our ability to obtain regulatory approval for the introduction of products to new jurisdictions, for requested rate changes and the timing thereof and for any proposed acquisitions; the effectiveness of our brand strategy and advertising campaigns relative to those of competitors; legislative and regulatory developments at the state and federal levels, including, but not limited to, matters relating to vehicle and homeowners insurance, health care reform and tax law changes; the outcome of disputes relating to intellectual property rights; the outcome of litigation or governmental investigations that may be pending or filed against us; severe weather conditions and other catastrophe events, and our ability to respond to changes in catastrophe loss trends; the effectiveness of our reinsurance programs; changes in vehicle usage and driving patterns, which may be influenced by oil and gas prices, changes in residential occupancy patterns, and the effects of the emerging “sharing economy”; advancements in vehicle or home technology or safety features, such as accident and loss prevention technologies or the development of autonomous or partially autonomous vehicles; our ability to accurately recognize and appropriately respond in a timely manner to changes in loss frequency and severity trends; technological advances; acts of war and terrorist activities; our ability to maintain the uninterrupted operation of our facilities, systems (including information technology systems), and business functions, and safeguard personal and sensitive information in our possession, whether from cyber attacks, other technology events or other means; our continued access to and functionality of third-party systems that are critical to our business; our ability to maintain adequate staffing levels, and the sources from which we obtain talent; our continued ability to access cash accounts and/or convert securities into cash on favorable terms when we desire to do so; restrictions on our subsidiaries’ ability to pay dividends to The Progressive Corporation; possible impairment of our goodwill or intangible assets if future results do not adequately support either, or both, of these items; court decisions, new theories of insurer liability or interpretations of insurance policy provisions and other trends in litigation; changes in health care and auto and property repair costs; and other matters described from time to time in our releases and publications, and in our periodic reports and other documents filed with the United States Securities and Exchange Commission. In addition, investors should be aware that generally accepted accounting principles prescribe when a company may reserve for particular risks, including litigation exposures. Accordingly, results for a given reporting period could be significantly affected if and when a reserve is established for one or more contingencies. Also, our regular reserve reviews may result in adjustments of varying magnitude as additional information regarding claims activity becomes known. Reported results, therefore, may be volatile in certain accounting periods.

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Supplemental Information

The Progressive Corporation and Subsidiaries

Quarterly Financial and Common Share Data

(unaudited)

(millions – except per share amounts)

Quarter	Total Revenues	Net Income	Net Income Attributable to Progressive	Per Common Share ²	Stock Price ¹		Dividends Declared Per Common Share ⁴
					Close	Rate of Return ³	
2018							
1	\$ 7,430.1	\$ 729.8	\$ 718.0	\$1.22	\$60.93		\$ 0
2	8,018.0	701.2	704.2	1.19	59.15		0
3	8,495.8	930.2	928.4	1.57	71.04		0
4	8,035.1	259.8	264.7	0.44	60.33		2.5140
	\$31,979.0	\$2,621.0	\$2,615.3	\$4.42	\$60.33	9.3%	\$2.5140
2017							
1	\$ 6,321.7	\$ 430.3	\$ 424.3	\$0.73	\$39.18		\$ 0
2	6,605.7	372.7	367.6	0.63	44.09		0
3	6,791.8	214.8	224.0	0.38	48.42		0
4	7,119.8	580.3	576.3	0.98	56.32		1.1247
	\$26,839.0	\$1,598.1	\$1,592.2	\$2.72	\$56.32	61.6%	\$1.1247
2016							
1	\$ 5,557.5	\$ 258.7	\$ 258.2	\$0.44	\$35.14		\$ 0
2	5,819.3	194.9	190.9	0.33	33.50		0
3	5,935.0	205.5	198.7	0.34	31.50		0
4	6,129.6	398.1	383.2	0.66	35.50		0.6808
	\$23,441.4	\$1,057.2	\$1,031.0	\$1.76	\$35.50	14.7%	\$0.6808

¹Prices are as reported on the New York Stock Exchange (NYSE). Progressive's common shares are listed under the symbol PGR.

²Based on net income available to Progressive common shareholders, which is net of preferred share dividends beginning in March 2018. The sum may not equal the total because the average equivalent shares differ in the quarterly and annual periods.

³Represents annual rate of return, assuming dividend reinvestment.

⁴For a discussion of Progressive's dividend policy, see *Note 14 – Dividends* for further information.

The Progressive Corporation and Subsidiaries
Ten Year Summary – Selected Financial Information
(unaudited)

(millions – except ratios, policies in force, per share amounts, and number of people employed)

	2018	2017	2016	2015	2014
Net premiums written	\$32,609.9	\$27,132.1	\$23,353.5	\$20,564.0	\$18,654.6
Growth	20%	16%	14%	10%	8%
Net premiums earned	\$30,933.3	\$25,729.9	\$22,474.0	\$19,899.1	\$18,398.5
Growth	20%	14%	13%	8%	8%
Policies in force (thousands):					
Personal Lines	17,759.0	16,075.5	14,656.8	13,764.7	13,261.9
Growth	10%	10%	6%	4%	2%
Commercial Lines	696.9	646.8	607.9	555.8	514.7
Growth	8%	6%	9%	8%	0%
Property ¹	1,936.5	1,461.7	1,201.9	1,076.5	—
Growth ¹	32%	22%	12%	NM	—
Total revenues	\$31,979.0	\$26,839.0	\$23,441.4	\$20,853.8	\$19,391.4
Underwriting margins: ²					
Personal Lines	9.7%	6.9%	4.7%	6.5%	6.7%
Commercial Lines	13.3%	7.7%	6.4%	15.9%	17.2%
Property ¹	(6.9)%	(5.1)%	3.8%	10.1%	—
Total underwriting operations	9.4%	6.6%	4.9%	7.5%	7.7%
Net income attributable to Progressive	\$ 2,615.3	\$ 1,592.2	\$ 1,031.0	\$ 1,267.6	\$ 1,281.0
Per common share	4.42	2.72	1.76	2.15	2.15
Average equivalent common shares	586.7	585.7	585.0	589.2	594.8
Comprehensive income attributable to Progressive	\$ 2,520.1	\$ 1,941.0	\$ 1,164.0	\$ 1,044.9	\$ 1,352.4
Total assets	\$46,575.0	\$38,701.2	\$33,427.5	\$29,819.3	\$25,787.6
Debt outstanding	4,404.9	3,306.3	3,148.2	2,707.9	2,164.7
Redeemable noncontrolling interest	214.5	503.7	483.7	464.9	—
Total shareholders' equity	10,821.8	9,284.8	7,957.1	7,289.4	6,928.6
Statutory surplus	11,731.2	9,664.4	8,560.0	7,575.5	6,442.8
Common shares outstanding	583.2	581.7	579.9	583.6	587.8
Common share close price (at December 31)	\$ 60.33	\$ 56.32	\$ 35.50	\$ 31.80	\$ 26.99
Rate of return ³	9.3%	61.6%	14.7%	20.9%	5.3%
Market capitalization	\$35,184.5	\$32,761.3	\$20,586.5	\$18,558.5	\$15,864.7
Book value per common share	17.71	15.96	13.72	12.49	11.79
Ratios:					
Return on average common shareholders' equity:					
Net income attributable to Progressive	24.7%	17.8%	13.2%	17.2%	19.1%
Comprehensive income attributable to Progressive	23.8%	21.7%	14.9%	14.2%	20.1%
Debt to total capital ⁴	28.9%	26.3%	28.3%	27.1%	23.8%
Price to earnings	13.6	20.7	20.2	14.8	12.6
Price to book	3.4	3.5	2.6	2.5	2.3
Net premiums written to statutory surplus	2.8	2.8	2.7	2.7	2.9
Statutory combined ratio	89.9	92.8	94.8	91.8	92.1
Dividends declared per common share ⁵	\$ 2.5140	\$ 1.1247	\$ 0.6808	\$ 0.8882	\$ 0.6862
Number of people employed	37,346	33,656	31,721	28,580	26,501

¹We began reporting our Property business as a segment on April 1, 2015, when we acquired a controlling interest in ARX; therefore, year-over-year growth for 2015 is not meaningful (NM).

²Underwriting margins are calculated as pretax underwriting profit (loss), as defined in *Note 10 – Segment Information*, as a percentage of net premiums earned.

(millions – except ratios, policies in force, per share amounts, and number of people employed)

	2013	2012	2011	2010	2009
Net premiums written	\$17,339.7	\$16,372.7	\$15,146.6	\$14,476.8	\$14,002.9
Growth	6%	8%	5%	3%	3%
Net premiums earned	\$17,103.4	\$16,018.0	\$14,902.8	\$14,314.8	\$14,012.8
Growth	7%	7%	4%	2%	3%
Policies in force (thousands):					
Personal Lines	13,056.4	12,735.3	12,283.8	11,702.7	10,940.6
Growth	3%	4%	5%	7%	5%
Commercial Lines	514.6	519.6	509.1	510.4	512.8
Growth	(1)%	2%	0%	0%	(5)%
Property ¹	—	—	—	—	—
Growth ¹	—	—	—	—	—
Total revenues	\$18,170.9	\$17,083.9	\$15,774.6	\$15,215.5	\$14,791.1
Underwriting margins: ²					
Personal Lines	6.6%	4.4%	6.8%	7.0%	7.6%
Commercial Lines	6.5%	5.2%	9.1%	12.5%	14.2%
Property ¹	—	—	—	—	—
Total underwriting operations	6.5%	4.4%	7.0%	7.6%	8.4%
Net income attributable to Progressive	\$ 1,165.4	\$ 902.3	\$ 1,015.5	\$ 1,068.3	\$ 1,057.5
Per common share	1.93	1.48	1.59	1.61	1.57
Average equivalent common shares	603.6	607.8	636.9	663.3	672.2
Comprehensive income attributable to Progressive	\$ 1,246.1	\$ 1,080.8	\$ 924.3	\$ 1,398.8	\$ 1,752.2
Total assets	\$24,408.2	\$22,694.7	\$21,844.8	\$21,150.3	\$20,049.3
Debt outstanding	1,860.9	2,063.1	2,442.1	1,958.2	2,177.2
Redeemable noncontrolling interest	—	—	—	—	—
Total shareholders' equity	6,189.5	6,007.0	5,806.7	6,048.9	5,748.6
Statutory surplus	5,991.0	5,605.2	5,269.2	5,073.0	4,953.6
Common shares outstanding	595.8	604.6	613.0	662.4	672.6
Common share close price (at December 31)	\$ 27.27	\$ 21.10	\$ 19.51	\$ 19.87	\$ 17.99
Rate of return ³	30.9%	15.4%	0.2%	16.9%	21.5%
Market capitalization	\$16,247.5	\$12,757.1	\$11,959.6	\$13,161.9	\$12,100.1
Book value per common share	10.39	9.94	9.47	9.13	8.55
Ratios:					
Return on average common shareholders' equity:					
Net income attributable to Progressive	17.7%	14.5%	16.5%	17.1%	21.4%
Comprehensive income attributable to Progressive	19.0%	17.4%	15.0%	22.3%	35.5%
Debt to total capital ⁴	23.1%	25.6%	29.6%	24.5%	27.5%
Price to earnings	14.1	14.3	12.3	12.3	11.5
Price to book	2.6	2.1	2.1	2.2	2.1
Net premiums written to statutory surplus	2.9	2.9	2.9	2.9	2.8
Statutory combined ratio	93.4	95.2	92.9	92.5	91.6
Dividends declared per common share ⁵	\$ 1.4929	\$ 1.2845	\$ 0.4072	\$ 1.3987	\$ 0.1613
Number of people employed	26,145	25,889	25,007	24,638	24,661

³Represents annual rate of return, assuming dividend reinvestment.

⁴Ratio reflects debt as a percent of debt plus shareholders' equity; redeemable noncontrolling interest is not part of this calculation.

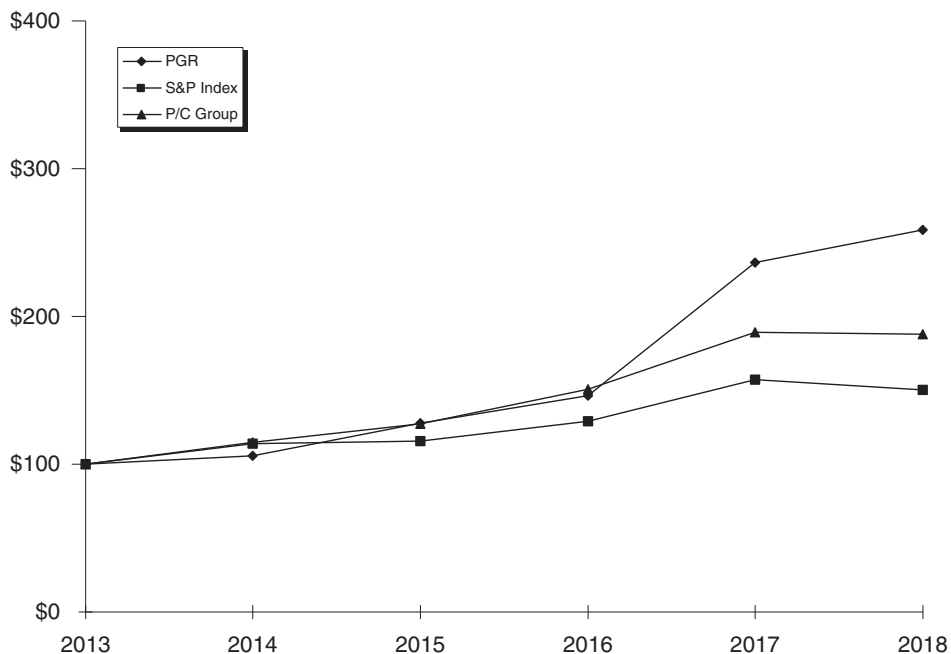
⁵Represents dividends pursuant to the annual variable dividend policy, which the Board of Directors terminated in 2018, plus special cash dividends of \$1.00 per common share in 2013, 2012, and 2010 (see Note 14 – Dividends for further discussion).

Performance Graph

(unaudited)

The following performance graph compares the performance of Progressive’s Common Shares (“PGR”) to the Standard & Poor’s Index (“S&P Index”) and the Value Line Property/Casualty Industry Group (“P/C Group”) for the last five years.

Cumulative Five-Year Total Return*
PGR, S&P Index, P/C Group (Performance Results through 12/31/18)



(Assumes \$100 was invested at the close of trading on December 31, 2013)

	2014	2015	2016	2017	2018
PGR	\$105.35	\$127.41	\$146.19	\$236.27	\$258.28
S&P Index	113.69	115.28	129.04	157.25	150.33
P/C Group ¹	114.54	127.17	150.39	188.96	187.71

*Assumes reinvestment of dividends

¹ Per Value Line Publishing LLC

Quantitative Market Risk Disclosures

(unaudited)

Quantitative market risk disclosures are only presented for market risk categories when risk is considered material. Materiality is determined based on the fair value of the financial instruments at December 31, 2018, and the potential for near-term losses from reasonably possible near-term changes in market rates or prices. We had no trading financial instruments at December 31, 2018 and 2017. See *Management's Discussion and Analysis of Financial Condition and Results of Operations* for our discussion of the qualitative information about market risk.

OTHER-THAN-TRADING FINANCIAL INSTRUMENTS

Financial instruments subject to interest rate risk were:

(millions)	Fair Value				
	-200 bps Change ¹	-100 bps Change ¹	Actual	+100 bps Change	+200 bps Change
U.S. government obligations	\$10,659.2	\$10,278.5	\$ 9,916.5	\$ 9,572.4	\$ 9,246.1
State and local government obligations	1,742.9	1,696.1	1,649.1	1,601.9	1,554.8
Asset-backed securities	7,877.9	7,745.8	7,613.3	7,480.6	7,348.7
Corporate securities	9,284.6	8,984.7	8,694.3	8,415.2	8,148.3
Preferred stocks	1,333.5	1,303.7	1,272.2	1,241.8	1,213.7
Short-term investments	1,796.7	1,796.3	1,795.9	1,795.6	1,795.2
Total at December 31, 2018	\$32,694.8	\$31,805.1	\$30,941.3	\$30,107.5	\$29,306.8
Total at December 31, 2017	\$25,082.4	\$24,480.9	\$23,874.9	\$23,292.1	\$22,716.1

¹The amounts reflect an interest rate of 1 basis point (bps) when the hypothetical decline in interest rates would have pushed yields to a negative level.

Exposure to risk is represented in terms of changes in fair value due to selected hypothetical movements in market rates. Bonds and preferred stocks are individually priced to yield to the worst case scenario, which includes any issuer-specific features, such as a call option. Asset-backed securities and state and local government housing securities are priced assuming deal specific prepayment scenarios, considering the deal structure, prepayment penalties, yield maintenance agreements, and the underlying collateral.

Financial instruments subject to equity market risk were:

(millions)	Fair Value		
	-10%	Actual	+10%
Common equities at December 31, 2018	\$2,362.2	\$2,626.1	\$2,890.0
Common equities at December 31, 2017	\$3,043.5	\$3,399.8	\$3,756.1

The model represents the estimated value of our common equity portfolio given a +/-10% change in the market, based on the common stock portfolio's weighted average beta of 1.01 for 2018 and 1.05 for 2017. The beta is derived from recent historical experience, using the S&P 500 as the market surrogate. The historical relationship of the common stock portfolio's beta to the S&P 500 is not necessarily indicative of future correlation, as individual company or industry factors may affect price movements. Betas are not available for all securities. In such cases, the change in fair value reflects a direct +/-10% change; the portion of our securities without betas is <0.1%.

The Progressive Corporation and Subsidiaries

Net Premiums Written by State

(unaudited)

(\$ in millions)	2018		2017		2016		2015		2014	
Florida	\$ 4,700.9	14.4%	\$ 3,808.0	14.0%	\$ 3,305.1	14.1%	\$ 2,839.6	13.8%	\$ 2,399.0	12.9%
Texas	3,388.6	10.4	2,704.9	10.0	2,226.8	9.5	1,941.5	9.4	1,664.6	8.9
California	1,836.0	5.6	1,520.5	5.6	1,284.8	5.5	1,173.6	5.7	1,080.6	5.8
New York	1,699.0	5.2	1,472.8	5.4	1,279.4	5.5	1,095.6	5.3	1,000.7	5.4
Georgia	1,452.9	4.5	1,177.0	4.4	939.4	4.0	813.2	4.0	774.0	4.1
Michigan	1,423.7	4.4	1,186.8	4.4	971.3	4.2	812.5	4.0	659.6	3.5
Ohio	1,194.0	3.7	1,033.5	3.8	905.2	3.9	820.8	4.0	807.7	4.3
Pennsylvania	1,157.4	3.5	1,005.5	3.7	895.8	3.8	787.3	3.8	718.6	3.9
New Jersey	1,088.1	3.3	985.8	3.6	902.8	3.9	820.2	4.0	754.6	4.0
Louisiana	856.5	2.6	739.2	2.7	694.7	3.0	614.9	3.0	552.5	3.0
All other	13,812.8	42.4	11,498.1	42.4	9,948.2	42.6	8,844.8	43.0	8,242.7	44.2
Total	\$32,609.9	100.0%	\$27,132.1	100.0%	\$23,353.5	100.0%	\$20,564.0	100.0%	\$18,654.6	100.0%

Principal Office

The Progressive Corporation
 6300 Wilson Mills Road
 Mayfield Village, Ohio 44143
 440-461-5000
 progressive.com

24-Hour Insurance Quotes, Claims Reporting, and Customer Service

	Personal autos, motorcycles, and recreational vehicles	Commercial autos/trucks
To receive a quote	1-800-PROGRESSIVE (1-800-776-4737) progressive.com	1-888-806-9598 progressivecommercial.com
To report a claim	1-800-PROGRESSIVE (1-800-776-4737) progressive.com	1-800-PROGRESSIVE (1-800-776-4737)
For customer service:		
If you bought your policy through an independent agent or broker	1-800-925-2886 (1-800-300-3693 in California) progressiveagent.com	1-800-444-4487 progressivecommercial.com
If you bought your policy directly through Progressive online or by phone	1-800-PROGRESSIVE (1-800-776-4737) progressive.com	1-800-895-2886 progressivecommercial.com
Homeowners – to receive a quote, report a claim, or speak to a customer service representative, please call 1-800-PROGRESSIVE or visit progressive.com and your inquiry will be routed to the appropriate contact center.		
In addition, iPhone® and Android® users can download the Progressive App to start a quote, report a claim, or service a policy.		

Annual Meeting The Annual Meeting of Shareholders will be held at the offices of The Progressive Corporation, Studio 96, 6671 Beta Drive, Mayfield Village, Ohio 44143 on May 10, 2019, at 10 a.m. eastern time. There were 2,016 shareholders of record on December 31, 2018.

Common Shares and Dividends The Progressive Corporation's common shares are traded on the New York Stock Exchange (symbol PGR). Progressive currently has a dividend policy under which the Board expects to declare regular, quarterly common share dividends and, on at least an annual basis, to consider declaring an additional variable common share dividend. A question and answer discussion on the dividend policy can be found at: progressive.com/dividend.

Shareholder/Investor Relations Progressive does not maintain a mailing list for distribution of shareholders' reports. To view Progressive's publicly filed documents, shareholders can access our website: progressive.com/sec. To view our earnings and other releases, access: progressive.com/investors.

For financial-related information or to request copies of Progressive's publicly filed documents free of charge, write to: The Progressive Corporation, Investor Relations, 6300 Wilson Mills Road, Box W33, Mayfield Village, Ohio 44143, email: investor_relations@progressive.com, or call: 440-395-2222.

For all other company information, call: 440-461-5000 or access our website at: progressive.com/contactus.

Transfer Agent and Registrar

Registered Shareholders: If you have questions or changes to your account and your Progressive common shares are registered in your name, write to: American Stock Transfer & Trust Company, Attn: Operations Center, 6201 15th Avenue, Brooklyn, NY 11219; phone: 1-866-709-7695; email: info@astfinancial.com; or visit their website at: astfinancial.com.

Beneficial Shareholders: If your Progressive common shares are held in a brokerage or other financial institution account, contact your broker or financial institution directly regarding questions or changes to your account.

Contact Non-Management Directors Interested parties have the ability to contact the non-management directors as a group by sending a written communication clearly addressed to the non-management directors to either of the following:

Lawton W. Fitt, Chairperson of the Board, The Progressive Corporation, email: chair@progressive.com; or

Daniel P. Mascaro, Secretary, The Progressive Corporation, 6300 Wilson Mills Road, Mayfield Village, Ohio 44143 or email: secretary@progressive.com.

The recipient will forward communications so received to the non-management directors.

Accounting Complaint Procedure Any employee or other interested party with a complaint or concern regarding accounting, internal accounting controls, or auditing matters relating to Progressive may report such complaint or concern directly to the Chairperson of the Audit Committee, as follows: Patrick H. Nettles, Ph.D., Chair of the Audit Committee, auditchair@progressive.com.

Any such complaint or concern also may be reported anonymously over the following toll-free Alert Line: 1-800-683-3604 or online at: www.progressivealertline.com. Progressive will not retaliate against any individual by reason of his or her having made such a complaint or reported such a concern in good faith. View the complete procedures at: progressive.com/governance.

Whistleblower Protections Progressive will not retaliate against any officer or employee of Progressive because of any lawful act done by the officer or employee to provide information or otherwise assist in investigations regarding conduct that the officer or employee reasonably believes to be a violation of federal securities laws or of any rule or regulation of the Securities and Exchange Commission. View the complete Whistleblower Protections at: progressive.com/governance.

Corporate Governance Progressive's Corporate Governance Guidelines and Board Committee Charters are available at: progressive.com/governance.

Counsel Baker & Hostetler LLP, Cleveland, Ohio

Charitable Contributions We contribute annually to: (i) The Insurance Institute for Highway Safety to further its work in reducing the human trauma and economic costs of auto accidents; and (ii) The Progressive Insurance Foundation, which provides matching funds to eligible 501(c)(3) charitable organizations to which Progressive and ARX employees contribute. Over the last five years, the matching funds provided by The Progressive Insurance Foundation averaged approximately \$4 million per year.

Social Responsibility and Sustainability Progressive uses an interactive online format to communicate our social responsibility efforts. This report can be found at: progressive.com/socialresponsibility.

Online Annual Report and Proxy Statement Our 2018 Annual Report to Shareholders can be found at: progressive.com/annualreport.

Our 2019 Proxy Statement and 2018 Annual Report to Shareholders, in a PDF format, can be found at: progressiveproxy.com.

Directors

Philip Bleser^{3,5,6}

Retired Chairman of Global Corporate Banking,
J. P. Morgan Chase & Co.
(financial services)

Stuart B. Burgdoerfer^{1,6}
Executive Vice President and Chief Financial Officer,
L Brands, Inc.
(retailing)

Pamela J. Craig⁶
Retired Chief Financial Officer,
Accenture PLC
(global management consulting)

Charles A. Davis^{4,6}
Chief Executive Officer,
Stone Point Capital LLC
(private equity investing)

Roger N. Farah^{2,3,5,6}
Former Executive Director,
Tory Burch LLC
(retailing)

Lawton W. Fitt^{2,4,5,6}
Chairperson of the Board
Retired Partner,
Goldman Sachs Group
(financial services)

Susan Patricia Griffith²
President and Chief Executive Officer,
The Progressive Corporation

Jeffrey D. Kelly^{1,6}
Retired Chief Operating Officer and Chief Financial Officer,
RenaissanceRe Holdings Ltd.
(reinsurance services)

Corporate Officers

Lawton W. Fitt
Chairperson of the Board
(non-executive)

Susan Patricia Griffith
President
and Chief Executive Officer

John P. Sauerland
Vice President
and Chief Financial Officer

Daniel P. Mascaro
Vice President, Secretary,
and Chief Legal Officer

Jeffrey W. Basch
Vice President
and Chief Accounting Officer
(until March 2019)

Patrick S. Brennan
Treasurer

Mariann Wojtkun Marshall
Assistant Secretary, Vice President and Chief Accounting Officer
(beginning March 2019)

Patrick H. Nettles, Ph.D.^{1,6}

Executive Chairman,
Ciena Corporation
(telecommunications)

Barbara R. Snyder^{3,6}
President,
Case Western Reserve University
(higher education)

Kahina Van Dyke⁶
SVP of Business and Corporate Development,
Ripple Labs, Inc.
(global digital payments network)

¹ Audit Committee Member

² Executive Committee Member

³ Compensation Committee Member

⁴ Investment and Capital Committee Member

⁵ Nominating and Governance Committee Member

⁶ Independent Director

Other Executive Officers

John A. Barbagallo
Commercial Lines President

Steven A. Broz
Chief Information Officer

Patrick K. Callahan
Personal Lines President

M. Jeffrey Charney
Chief Marketing Officer

William M. Cody
Chief Investment Officer

John Murphy
Customer Relationship Management
President

Lori Niederst
Chief Human Resource Officer

Andrew J. Quigg
Chief Strategy Officer

Michael D. Sieger
Claims President

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