ALLSTATE CORP

Form 10-K

February 15, 2019

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

For the fiscal year ended December 31, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT o OF 1934

For the transition period from

Commission file number 1-11840

THE ALLSTATE CORPORATION

(Exact name of registrant as specified in its charter)

Delaware 36-3871531

(State or Other Jurisdiction of Incorporation or Organization) (I.R.S. Employer Identification No.)

to

2775 Sanders Road, Northbrook, Illinois 60062

(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (847) 402-5000

Securities registered pursuant to Section 12(b) of the Act:

Name of each exchange on Title of each class

which registered

New York Stock Exchange

Chicago Stock Exchange New York Stock Exchange

5.10% Fixed-to-Floating Rate Subordinated Debentures due 2053

Depositary Shares each representing a 1/1,000th interest in a share of Fixed Rate New York Stock Exchange

Noncumulative Perpetual Preferred Stock, Series A

Common Stock, par value \$0.01 per share

Depositary Shares each representing a 1/1,000th interest in a share of Fixed Rate

Noncumulative Perpetual Preferred Stock, Series D

Depositary Shares each representing a 1/1,000th interest in a share of Fixed Rate

Noncumulative Perpetual Preferred Stock, Series E

Depositary Shares each representing a 1/1,000th interest in a share of Fixed Rate

Noncumulative Perpetual Preferred Stock, Series F

Depositary Shares each representing a 1/1,000th interest in a share of Fixed Rate

Noncumulative Perpetual Preferred Stock, Series G

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes X

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the

Act. Yes No X

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

> Yes X No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes X No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge in definitive proxy or

information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer X Accelerated filer

Non-accelerated filer Smaller reporting company Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ____

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No X

The aggregate market value of the common stock held by non-affiliates of the registrant, computed by reference to the closing price as of the last business day of the registrant's most recently completed second fiscal quarter, June 30, 2018, was approximately \$31.24 billion.

As of January 31, 2019, the registrant had 331,963,104 shares of common stock outstanding.

Documents Incorporated By Reference

Portions of the following documents are incorporated herein by reference as follows:

Part III of this Form 10-K incorporates by reference certain information from the registrant's definitive proxy statement for its annual stockholders meeting to be held on May 21, 2019, (the "Proxy Statement") to be filed not later than 120 days after the end of the fiscal year covered by this Form 10-K.

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2018 Form 10-K Item 1. Business

Part I

Item 1. Business

The Allstate Corporation was incorporated under the laws of the State of Delaware on November 5, 1992 to serve as the holding company for Allstate Insurance Company. Its business is conducted principally through Allstate Insurance Company, Allstate Life Insurance Company and other subsidiaries (collectively, including The Allstate Corporation, "Allstate").

Allstate's purpose is to protect people from life's uncertainties and prepare them for the future so they can realize their hopes and dreams. Allstate is primarily engaged in the property and casualty insurance business in the United States and Canada. Additionally, Allstate provides customers other protection offerings such as life, accident and health insurance and protection plans that cover electronic devices and personal identities.

The Allstate Corporation is one of the largest publicly held personal lines insurers in the United States. Allstate's Property-Liability strategy is to serve distinct customer segments with differentiated offerings. The Allstate brand is widely known through the "You're In Good Hands With Allstate" slogan. Allstate is the \mathfrak{F}^1 largest personal property and casualty insurer in the United States on the basis of 2017 statutory direct premiums written according to A.M. Best.

In addition, Allstate also has strong market positions in other protection products. According to A.M. Best, Allstate is the nation's 2th largest issuer of life insurance business on the basis of 2017 ordinary life insurance in force and 38th largest on the basis of 2017 statutory admitted assets. Allstate Benefits provides accident, health and life insurance through employers and is one of the top five voluntary benefits carriers in the market based on a 2017 voluntary/worksite industry survey. SquareTrade provides protection plans on a wide variety of consumer goods such as cell phones, tablets, computers and appliances, and has a leading position in distribution through major retailers. InfoArmor provides identity protection through employers and has a leading position in this distribution channel. In total, Allstate had 113.9 million policies in force ("PIF") as of December 31, 2018.

In this Annual Report on Form 10-K, we occasionally refer to statutory financial information. All domestic United States insurance companies are required to prepare statutory-basis financial statements. As a result, industry data is available that enables comparisons between insurance companies, including competitors that are not required to prepare financial statements in conformity with accounting principles generally accepted in the United States of America ("GAAP"). We frequently use industry publications containing statutory financial information to assess our competitive position.

Item 1. Business 2018 Form 10-K

Strategy and Segment Information

Allstate's strategy is to grow personal property-liability market share and expand other protection businesses by leveraging our brand, customer base, investment expertise, distribution channels and capital.

We evaluate performance and make resource and capital decisions across seven reportable segments. Reportable segments

Allstate	Protection

(1)

Includes the Allstate, Encompass and Esurance brands and Answer Financial. Offers private passenger auto, homeowners, other personal lines and commercial insurance through agencies

and direct, including contact centers and the internet.

Service Businesses

Includes SquareTrade, Arity, InfoArmor, Allstate Roadside Services and Allstate Dealer Services, which offer a broad range of products and services that expand and enhance our customer value propositions. InfoArmor is included in Service Businesses since its acquisition

on October 5, 2018.

Allstate Life

Offers traditional, interest-sensitive and variable life insurance products through Allstate

exclusive agencies and exclusive financial specialists.

Offers voluntary benefits products, including life, accident, critical illness, short-term disability and other health insurance products sold through workplace enrolling independent agents and

Allstate exclusive agencies.

Allstate Annuities

Allstate Benefits

Consists of deferred fixed annuities and immediate fixed annuities (including standard and

sub-standard structured settlements) in run-off.

Discontinued Lines and Coverages (1)

Relates to property and casualty insurance policies written during the 1960's through the

mid-1980's with exposure to asbestos, environmental and other claims in run-off.

Corporate and
Other

Includes holding company activities and certain non-insurance operations.

⁽¹⁾ Allstate Protection and Discontinued Lines and Coverages segments comprise Property-Liability.

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Allstate Protection Segment

Our Allstate Protection segment accounted for 90.2% of Allstate's 2018 consolidated insurance premiums and contract charges and 29.2% of Allstate's December 31, 2018 PIF. In this segment, private passenger auto, homeowners, and other personal lines insurance products are offered to consumers through agencies and directly through contact centers and online. Our strategy is to position product offerings and distribution channels to meet customers' evolving needs and help them manage the risks they face.

Allstate Protection has four market-facing businesses with products and services that cater to different customer preferences for advice and brand recognition to improve our competitive position and performance. Strategy

We serve all four consumer segments using differentiated products, analytical expertise, telematics and an integrated digital enterprise that leverages data and technology to redesign our processes with a focus on greater effectiveness and efficiencies and long-term expense savings.

Allstate brand strategy

Our strategy is to grow profitably through exclusive agencies, who serve as trusted advisors to customers, while leveraging best-in-class operational capabilities to gain market share and efficiencies. The Allstate brand differentiates itself by offering comprehensive product options and features through agencies that provide local advice and service, including a partnership with exclusive financial specialists to deliver life and retirement solutions. This strategy focuses on four customer-centric themes to expand our trusted advisor initiative and deliver profitable growth:

510 W till.			
Available	Competitive	Simple	Connected
Provide products and services	Offer products that make		Know our customers and
that protect	good use of our customers	Easy to interact with	proactively interact in
what matters most	hard-earned money		value-added ways
Continue to build effective and	Advance our pricing	Provide seamless,	Expand the breadth of
efficient distribution systems	sophistication and	personalized customer	value-added products and
and product offerings that	improve cost	interactions supported by	services, enabled by
provide a competitive	competitiveness	contemporary products and	connections with our
advantage	competitiveness	technology	customers

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Available Allstate's 10,700 exclusive agencies provide customized solutions and support based on our consumers' needs. Agencies are established in 10,600 locations, supported by 26,900 licensed sales professionals and 1,100 exclusive financial specialists who are trusted advisors to our customers.

Being a trusted advisor means that our agencies

- Have a local presence in our customers' communities
- Know customers and understand the unique needs of their households
- Help customers assess the potential risks they face
- Provide local expertise and personalized guidance on how to protect what matters most to customers by offering customized solutions
- Support customers when they have changes in their lives and during their times of need

Allstate exclusive agencies also offer life and retirement solutions and can partner with exclusive financial specialists who provide expertise with more complex life and retirement solutions and other financial needs of our customers. Exclusive agencies and financial specialists are supported through marketing assistance, service and business processes, technology, education, offering financing to grow their businesses and other resources to help them enhance the customer experience and to acquire and retain more customers. We continue to focus on the effectiveness and efficiency of our distribution system and the breadth of our product offerings.

Competitive Data, analytics and technology support advancements in pricing sophistication for all lines of business. Pricing and underwriting strategies and decisions are designed to generate sustainable profitable growth.

Targeted marketing includes messaging that communicates the value of our Good Hands[®], the importance of having proper coverage, product options, and the ease of doing business with Allstate and our exclusive agencies.

Enhanced loss cost management and expense control are a priority. To achieve this, we are continuing to modernize our operating platform (including enhanced digital capabilities) and optimizing vendor relationships. Investments are being made to increase efficiencies and reduce expenses.

Simple We are focused on creating value through simplicity, quality, rewarding engagement and improving ease of access and service through an integrated digital enterprise.

Emerging technologies and predictive analytics are being used to simplify the customer experience and expedite the claims process. To achieve this, we have opened several Digital Operating Centers to handle auto physical damage claims countrywide. The centers utilize virtual estimation capabilities, which include estimating damage through photos and video with the use of QuickFoto Claim® and Virtual Assist® (video chat technology used to review supplemental damage with auto body shops). We are also leveraging virtual

capabilities to handle property claims by estimating damage through video with Virtual Assist and aerial imagery using satellites, airplanes and drones.

Connected We will continue to leverage telematics to offer customers a highly individualized price, better understand their risks and improve customer experience delivered through innovative products and services.

Current capabilities are being expanded through our partnership with Arity, which uses telematics to offer personalized, engaging programs that empower drivers with insights about their vehicle's health, costs and safety. Exclusive agency compensation structure The compensation structure for Allstate exclusive agencies rewards agencies for delivering high value to customers and achieving certain business outcomes such as product profitability, growth and household penetration. Allstate exclusive agency remuneration comprises a base commission, variable compensation and a bonus.

Agencies receive a monthly base commission payment as a percentage of their total eligible written premium. Variable compensation rewards agencies for meeting customers' needs for life insurance and retirement policies sold relative to the size of the agency.

Bonus compensation is based on a percentage of premiums and can be earned by agencies who are meeting certain sales goals and selling additional policies to meet customer needs profitably.

Agencies have the ability to earn commissions and additional bonuses on non-proprietary products provided to customers when an Allstate product is not available. In 2018, Ivantage had \$1.8 billion non-proprietary premiums under management and is a leading provider of property and casualty brokerage services.

Allstate exclusive financial specialists receive commissions for proprietary and non-proprietary sales and earn a bonus based on the volume of business produced with Allstate exclusive agencies.

Allstate independent agent remuneration comprises a base commission and a bonus that can be earned by agents who achieve sales goals and a target loss ratio.

Commercial lines strategy We are actively pursuing profitable expansion of our commercial lines, including the shared economy, such as transportation network companies. Profit improvement actions have been implemented for our traditional commercial lines insurance products, emphasizing pricing, claims, governance and operational improvements.

Esurance strategy

We are working to make insurance surprisingly painless by innovating to make it simple, transparent, and affordable. We plan to grow profitably by

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delivering an excellent customer experience at an exceptional value through an engaged and high-performing workforce. To provide an enhanced customer experience we:

Offer a seamless online and mobile experience with fast quoting for ease and convenience.

Provide hassle-free purchases and claims processing through intuitive tools and advanced technology.

Offer a broad suite of protection products and solutions to our customers.

Offer innovative product options and features.

Encompass strategy

Our strategy is to expand the independent agency footprint, broaden geographic and product diversification, enhance pricing and underwriting sophistication and provide a superior customer and agent experience.

Over the past several years, Encompass has been executing on a profit improvement plan emphasizing pricing, governance and operational improvements at both the state and countrywide levels. These actions have improved underlying profitability but led to a reduction of policies in force compared to prior years for both auto and homeowners.

Answer Financial strategy

Answer Financial is an insurance agency that sells other insurance companies' products directly to customers online. Our strategy as a technology-enabled insurance agency is to provide comparison shopping and related services for businesses, offering customers choice, convenience and ease of use.

Allstate Protection pricing and risk management strategies

Our pricing and underwriting strategies and decisions are designed to generate sustainable profitable growth. A proprietary database of underwriting and loss experience enables sophisticated pricing algorithms and methodologies to more accurately price risks while also seeking to attract and retain customers in multiple risk segments.

For auto insurance, risk evaluation factors can include, but are not limited to, vehicle make, model and year; driver age and marital status; territory; years licensed; loss history; years insured with prior carrier; prior liability limits; prior lapse in coverage; and insurance scoring utilizing telematics data and other consumer information.

For property insurance, risk evaluation factors can include, but are not limited to, the amount of insurance purchased;

For property insurance, risk evaluation factors can include, but are not limited to, the amount of insurance purchased; geographic location of the property; loss history; age, condition and construction characteristics of the property; and

characteristics of the insured including insurance scoring utilizing other consumer information.

A combination of underwriting information, pricing and discounts are also used to achieve a more competitive position and growth. The pricing strategy involves local marketplace pricing and underwriting decisions based on risk evaluation factors and an evaluation of competitors to the extent permissible by applicable law.

Pricing of property products is intended to establish risk-adjusted returns that are acceptable over a long-term period. Rate increases are pursued to keep pace with loss trends, including losses from catastrophic events and those that are weather-related (such as wind, hail, lightning and freeze not meeting our criteria to be declared a catastrophe). We also take into consideration potential customer disruption, the impact on our ability to market our products, regulatory limitations, our competitive position and profitability.

In any reporting period, loss experience from catastrophic events and weather-related losses may contribute to negative or positive underwriting performance relative to the expectations incorporated into product pricing. Property catastrophe exposure is managed with the goal of providing shareholders an acceptable return on the risks assumed in the property business and to reduce the variability of earnings. Our property business includes personal homeowners, commercial property and other property insurance lines. Our current catastrophe reinsurance program supports our risk tolerance framework that targets less than a 1% likelihood of annual aggregate catastrophe losses from hurricanes and earthquakes, net of reinsurance, exceeding \$2 billion. The use of different assumptions and updates to industry models, and updates to our risk transfer program could materially change the projected loss. Growth strategies include areas where we believe diversification can be enhanced and an appropriate return can be earned for the risk. As a result, our modeled exposure may increase, but in aggregate remain lower than \$2 billion as noted above. In addition, we have exposure to other severe weather events and wildfires, which impact catastrophe

losses.

Property catastrophe exposure management includes purchasing reinsurance to provide coverage for known exposure to hurricanes, earthquakes, wildfires, fires following earthquakes and other catastrophes. We are also working to promote measures to prevent and mitigate losses and make homes and communities more resilient, including enactment of stronger building codes and effective enforcement of those codes, adoption of sensible land use policies, and development of effective and affordable methods of improving the resilience of existing structures.

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Products and distribution

Allstate Protection differentiates itself by offering solutions to meet broad-based household protection needs and a comprehensive range of innovative product options and features across distribution channels that best suit each consumer segment.

Insurance products

Auto

Homeowners Specialty auto (motorcycle, trailer, motor home and off-road vehicle)

Other personal

lines (renters,

Allstate brand

condominium, landlord, boat, umbrella, manufactured home and stand-alone scheduled personal property) Commercial

lines Auto

Homeowners

Esurance brand

Motorcycle

Renters Auto

Homeowners

Other personal

Encompass brand lines (renters,

condominium, landlord, boat and umbrella)

Answer Financial Comparison

quotes for

non-proprietary

auto,

homeowners and other personal lines (condominium,

renters, motorcycle, recreational

vehicle and boat)

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Answer

Financial

StreetWiseSM

Shared economy solutions

Innovative product offerings and features	S
Market-leading solutions	

	ding solutions	
	Your Choice Auto®	Qualified customers choose from a variety of options, such as Accident Forgiveness, Deductible Rewards®, Safe Driving Bonus® and New Car
	Tour Choice Auto	Replacement.
	Allstate House and Home®	Featured options include Claim RateGuard®, Claim-Free Bonus, deductible rewards and flexibility in options and coverages, including graduated roof coverage and pricing based on roof type and age for damage related to wind and hail events.
Allstate	Claim Satisfaction	Promised return of premium to standard auto insurance customers dissatisfied
brand	Guarantee [®]	with their claims experience. Auto customers with a qualifying property policy are provided an auto renewal
	Bundling Benefits	guarantee and a deductible waiver (when the same event, with the same covered cause of loss, damages both auto and property). Offered in 15 states as of December 31, 2018.
	Auto Replacement Protection	Replaces a qualifying customer's vehicle involved in a total loss accident with a vehicle of the same or similar make and model that is one year newer. Offered in 15 states as of December 31, 2018.
Encompass brand	EncompassOne Policy®	Packaged insurance product with one premium, one bill, one policy deductible and one renewal date. Broad coverage options include customizable features such as enhanced accident forgiveness, new-car replacement coverage, walk-away home coverage option should the insured decide not to rebuild, flexible additional living expense coverage, water-sewer backup coverage options and roadside assistance. This product is offered in 36 states and the District of Columbia ("D.C.") as of December 31, 2018. Offers contemporary auto (6-months), homeowner and specialty lines products,
	Surround Solutions by Encompass SM	pricing, services and support designed to provide flexibility and be customized based on consumer needs. Offered exclusively in four states for Encompass as of December 31, 2018.
Telematics	offerings	
Allstate brand	Drivewise®	Telematics-based insurance program, available in 49 states and the District of Columbia as of December 31, 2018, that uses a mobile application or an in-car device to capture driving behaviors and encourage safe driving. It provides customers with information and tools, incentives and driving challenges. For example, in most states, Allstate Rewards® provides reward points for safe driving.
	Milewise [®]	Usage-based insurance product, available in 6 states as of December 31, 2018, that gives customers flexibility to customize their insurance and pay based on the number of miles they drive.
Esurance brand	DriveSense®	Telematics-based insurance program, available in 32 states as of December 31, 2018, that primarily uses a mobile application to capture driving behaviors and reward customers for safe driving.
Encompass brand	Route Report SM	Telematics application, available in 4 states as of December 31, 2018, used to capture driving behaviors and reward customer participation.

2018, used to capture driving behaviors.

Telematics application, available in all 50 states and D.C. as of December 31,

Transportation Network Commercial coverage for drivers of transportation networking companies during Allstate brand Company Commercial various phases of the ridesharing service.

> Allstate Ride for Hire®/ Supplemental personal insurance coverage for those using their vehicle to drive HostAdvantage® for a transportation network company or their house for peer-to-peer property

> > sharing.

Distribution channels

Auto

In the U.S., we offer products through 10,700 Allstate exclusive agencies operating in 10,600 locations, supported by 26,900 licensed sales professionals, and 1,100 exclusive financial specialists. We also offer products through 2,700 independent agencies that are primarily in rural areas and through contact centers and online. In Canada, we offer Allstate brand products through 900 employee producers.

Allstate brand

Esurance Sold to customers online and through contact centers.

brand

Encompass Distributed through 2,600 independent agencies.

brand

Answer Comparison quotes offered to customers online or through contact centers. Financial

Allstate exclusive agencies also support the Service Businesses, Allstate Life and Allstate Benefits segments through offering roadside assistance and protection plans, life insurance and voluntary benefits products.

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When an Allstate product is not available, we may offer non-proprietary products to consumers through arrangements made with other companies, agencies, and brokers. As of December 31, 2018, Allstate agencies had approximately \$1.6 billion of non-proprietary personal insurance premiums under management, primarily related to property business in hurricane exposed areas, and approximately \$220 million of non-proprietary commercial insurance premiums under management. Additionally, we offer a homeowners product through our subsidiary North Light Specialty Insurance Company in certain areas with higher risk of catastrophes or where customers do not meet the Allstate brand standard underwriting profile.

Competition

The personal lines insurance markets, including private passenger auto and homeowners insurance, are highly competitive. The following charts provide Allstate Protection's combined market share compared to our principal competitors in the U.S. using statutory direct written premium for the year ended December 31, 2017, according to A.M. Best.

Esurance is among the top 25 largest providers of personal property and casualty insurance products in the U.S., and Encompass is among the top 20 largest providers of personal property and casualty insurance products through independent agencies in the U.S., based on statutory direct written premium according to A.M. Best for 2017. Geographic markets

Our principal geographic markets are in the U.S. Through various subsidiaries, we are authorized to sell a variety of personal property and casualty products in all 50 states, D.C., Puerto Rico and Canada. The top U.S. geographic markets are reflected below based on 2018 information contained in statements filed with the state insurance departments.

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Service Businesses Segment

Our Service Businesses segment accounted for 3.3% of Allstate's 2018 consolidated total revenue and 65.1% of Allstate's December 31, 2018 PIF. Service Businesses include SquareTrade, Arity, InfoArmor, Allstate Roadside Services and Allstate Dealer Services, which offer a broad range of products and services that expand and enhance customer value propositions. Starting in the fourth quarter of 2018, the Service Businesses segment includes the results of InfoArmor, a leading provider of identity protection to more than 1 million employees and their family members at over 1,400 firms, which was acquired on October 5, 2018.

Strategy - To deliver superior value propositions and build strategic platforms to connect and engage with customers and effectively address their changing needs and preferences.

Expand distribution of consumer protection plan and technical support products through new and SquareTrade®

existing retail and mobile operator accounts while increasing profitability and returns.

Build a strategic platform leveraging our analytics and deep understanding of driver risk. The Arity® platform will be used by those industries effected most by the changing face of transportation,

including insurance companies, shared mobility companies and the automotive ecosystem. Create a leading position in the identity protection market, offering full identity protection

InfoArmor® monitoring with proactive alerts, digital exposure reporting, identity theft reimbursement and

excellent customer service.

Digitize the roadside assistance business and enhance capabilities to deliver a superior customer Allstate Roadside experience while lowering costs in the customer assistance centers and optimizing the rescue Services[®]

Allstate Dealer Expand distribution of Allstate branded finance and insurance products and services to auto

Services® dealerships, while pursuing additional distribution through strategic partnerships.

Products and distribution Products and services

Arity

Provides consumer protection plans and related technical support for mobile phones, consumer SquareTrade electronics and appliances which provide customers protection from mechanical or electrical failure,

and in certain cases, accidental damage from handling.

The Arity platform provides data and analytics solutions using automotive telematics information. Customers receive value from our solutions either by using web based software tools, white labeled

mobile applications or through embedding our technology in their mobile applications.

Provides identity protection services including monitoring, alerts, remediation and a proprietary InfoArmor

indicator of identity health.

A leading roadside assistance provider in North America offering towing, jump-start, lockout, fuel Allstate delivery and tire change services to retail customers and customers of our wholesale partners. Good

Hands Rescue® is a pay-per-use mobile application service that connects users to a select Roadside

Services countrywide network of third-party providers and a proprietary crowdsourced network to assist with

emergencies.

Offers finance and insurance products, including vehicle service contracts, guaranteed asset Allstate Dealer Services protection waivers, road hazard tire and wheel protection, and paintless dent repair protection.

Distribution channels

SquareTrade Major retailers in the U.S. and mobile operators in Europe.

Sells directly to affiliate and non-affiliate customers and through strategic industry specific Arity

partners.

Workplace benefit programs provided to employees with a strategic focus to leverage InfoArmor

relationships with our Allstate Benefits segment and expand into other distribution channels.

Allstate Roadside

Allstate exclusive agencies, wholesale partners, affinity groups and a mobile application. Services

Allstate Dealer Independent agencies and brokers through auto dealerships in the U.S. to customers in

Services conjunction with the purchase of a new or used vehicle.

Geographic markets

The Service Businesses primarily operate in the U.S., with certain businesses offering services in Europe, Canada and Puerto Rico.

Competition

We compete on a variety of factors, including product offerings, brand recognition, financial strength, price, distribution and the customer experience. The market for these services is highly fragmented and competitive.

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Allstate Life Segment

Strategy

Our Allstate Life segment accounted for 4.8% of Allstate's 2018 consolidated total revenue and 1.8% of Allstate's December 31, 2018 PIF. Our overall strategy is to broaden Allstate's customer relationships and value proposition. The Allstate Life segment's product offerings are a part of the Allstate brand trusted advisor strategy. We also distribute non-proprietary retirement products offered by third-party providers. Our target customers are those who prefer local personalized advice and service and are brand-sensitive.

Our product positioning provides solutions to help meet customer needs during various phases of life. Term and whole life insurance products offer basic life protection solutions while universal life and financial planning solutions cover more advanced needs. Many Allstate exclusive agencies partner with exclusive financial specialists to deliver life and retirement solutions. These specialists have expertise with advanced life and retirement cases and other more complex customer needs. Successful partnerships assist agencies with building stronger and deeper customer relationships. Sales producer education and technology improvements are being made to ensure agencies have the tools and information needed to help customers meet their needs and build personal relationships as trusted advisors. The operating model is being modernized through investments in data and analytics and technology capabilities, tailoring distribution support, product innovation and enhancing the underwriting process.

Products and distribution

Insurance products

Term life Interest-sensitive life

Whole life

Variable life

Distribution channel

Allstate exclusive agencies and exclusive financial specialists.

Allstate exclusive agencies and exclusive financial specialists also sell certain non-proprietary products, including mutual funds, fixed and variable annuities, disability insurance, and long-term care insurance to provide a broad suite of protection and retirement products. As of December 31, 2018, Allstate agencies had approximately \$14.1 billion of non-proprietary mutual funds and fixed and variable annuity account balances under management. New and additional deposits into these non-proprietary products were \$2.2 billion in 2018.

Competition

We compete on a variety of factors, including product offerings, brand recognition, financial strength and ratings, price, distribution and the level of customer service. The market for life insurance continues to be highly fragmented and competitive. As of December 31, 2017, there were approximately 360 groups of life insurance companies in the United States.

Geographic markets

Through subsidiaries, we are authorized to sell various types of life insurance products in all 50 states, D.C. and Puerto Rico. Our top geographic markets are reflected below.

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Allstate Benefits Segment

Strategy

Our Allstate Benefits segment accounted for 3.0% of Allstate's 2018 consolidated total revenue and 3.7% of Allstate's December 31, 2018 PIF. The Allstate Benefits segment provides consumers with financial protection against the risk of accidents, illness and mortality. We are an industry leader in the rapidly growing voluntary benefits market, offering a broad range of products through workplace enrollment. The voluntary market continues to grow as voluntary benefits products have become a core component of employer benefit offerings. Our life insurance portfolio includes individual and group term life and permanent life solutions.

Our products are offered through a network of independent agents and Allstate exclusive agencies. A broad product portfolio, flexible enrollment solutions and technology (including significant presence on employer benefit administration systems), our strong national accounts team, and a well-recognized brand differentiates Allstate Benefits.

Our strategy for growth is to become the industry leader in the voluntary benefits market by delivering substantially more value through innovative products and technology, tailored solutions and exceptional service. Initiatives are focused on expanding into non-traditional products and becoming an integrated digital enterprise through investments in future-state technologies and data and analytics capabilities.

Products and distribution

Our target customers are middle market consumers with family financial protection needs employed by small, medium and large sized firms. Allstate Benefits is well represented in all market segments and is a leader in the large and mega (over 10,000 employees) market segments.

Voluntary benefits products

Life Short-term disability

Accident Other health

Critical illness

Distribution channels

Primary distribution continues to be through 6,200 workplace enrolling independent agents.

Allstate exclusive agencies, focusing on small employers, also distribute products.

Competition

We compete on a wide variety of factors, including product offerings, brand recognition, financial strength and ratings, price, distribution and customer service.

The market for voluntary benefits is growing as these products help employees fill the increasing gaps associated with continued medical cost inflation and the shifting of costs from employers to employees to cover co-pays and deductibles. Favorable industry and economic trends have increased competitive pressure and attracted new traditional and non-traditional entrants to the voluntary benefits market. Recent entrants, including large group medical, life and disability insurance carriers, are leveraging core benefit capabilities by bundling and discounting to capture voluntary market share.

Geographic markets

We are authorized to sell voluntary benefits products in all 50 states, D.C., Puerto Rico, the U.S. Virgin Islands, Guam and Canada. The top geographic markets are reflected below.

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Allstate Annuities Segment

Strategy

Our Allstate Annuities segment accounted for 2.4% of Allstate's 2018 consolidated total revenue and 0.2% of Allstate's December 31, 2018 PIF. The Allstate Annuities segment consists primarily of deferred fixed annuities and immediate fixed annuities (including standard and sub-standard structured settlements). The segment is in run-off and is focused on increasing lifetime economic value. Both the deferred and immediate annuity businesses have been adversely impacted by the historically low interest rate environment. Our immediate annuity business has also been impacted by medical advancements that have resulted in annuitants living longer than anticipated when many of these contracts were originated.

Allstate Annuities focuses on the distinct risk and return profiles of the specific products when developing investment and liability management strategies. The level of legacy deferred annuities in force has been significantly reduced and the investment portfolio and crediting rates are proactively managed to improve profitability of the business while providing appropriate levels of liquidity.

The investment portfolio supporting our immediate annuities is managed to ensure the assets match the characteristics of the liabilities and provide the long-term returns needed to support this business. To better match the long-term nature of our immediate annuities, we use performance-based investments in which we have ownership interests and a greater proportion of return is derived from idiosyncratic asset or operating performance.

We continue to review strategic options to reduce exposure and improve returns of the business. As a result, we may take additional operational and financial actions that offer return improvement and risk reduction opportunities. Products and distribution

We previously offered and continue to have in force deferred fixed annuities and immediate fixed annuities (including standard and sub-standard structured settlements). We exited the continuing sale of annuities over an eight year period from 2006 to 2014, reflecting our expectations of declining returns. In 2006, we disposed of substantially all of the variable annuity business through reinsurance agreements. For discussion of non-proprietary retirement and investment products sold through our Allstate exclusive agencies and exclusive financial specialists, see Part I, Item 1. Allstate Life Segment of this report.

Other Business Segments

Discontinued Lines and Coverages Segment

The Discontinued Lines and Coverages segment includes results from property and casualty insurance coverage that primarily relates to policies written during the 1960s through the mid-1980s.

Strategy Management of this segment has been assigned to a designated group of professionals with expertise in claims handling, policy coverage interpretation, exposure identification, litigation and reinsurance collection. As part of its responsibilities, this group may at times be engaged in policy buybacks, settlements and reinsurance assumed and ceded commutations.

Development in the reserves established for asbestos, environmental and other discontinued lines losses in the future may continue. Reserve changes can be caused by new information relating to new and additional claims or the impact of resolving unsettled claims based on unanticipated events such as arbitrations, litigation, legislative, judicial or regulatory actions. Environmental losses may also increase as the result of additional funding for environmental site clean-up.

Challenges related to the concentration of insurance and reinsurance claims from companies who specialize in this business continue to be addressed.

Corporate and Other Segment

Our Corporate and Other segment is comprised of holding company activities and certain non-insurance operations.

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Regulation

Allstate is subject to extensive regulation, primarily at the state level. The method, extent and substance of such regulation vary by state but generally have their source in statutes that establish standards and requirements for conducting the business of insurance and that also delegate regulatory authority to a state agency. These rules have a substantial effect on our business and relate to a wide variety of matters, including insurer solvency and statutory surplus sufficiency, reserve adequacy, insurance company licensing and examination, agent and adjuster licensing, policy forms, rate setting, the nature and amount of investments, claims practices, participation in shared markets and guaranty funds, transactions with affiliates, the payment of dividends, underwriting standards, statutory accounting methods, trade practices, privacy regulation and data security, corporate governance and risk management. In addition, state legislators and insurance regulators continue to examine the appropriate nature and scope of state insurance regulation. For a discussion of statutory financial information, see Note 16 of the consolidated financial statements. For a discussion of regulatory contingencies, see Note 14 of the consolidated financial statements. Notes 14 and 16 are incorporated in this Part I, Item 1 by reference.

As part of an effort to strengthen the regulation of the financial services market, the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank") was enacted in 2010. Dodd-Frank created the Federal Insurance Office ("FIO") within the U.S. Department of the Treasury ("Treasury"). The FIO monitors the insurance industry, provides advice to the Financial Stability Oversight Council ("FSOC"), represents the U.S. on international insurance matters, and studies the current regulatory system.

Additional regulations or new requirements may emerge from the activities of various regulatory entities, including the Federal Reserve Board, FIO, FSOC, the National Association of Insurance Commissioners ("NAIC"), and the International Association of Insurance Supervisors ("IAIS"), that are evaluating solvency and capital standards for insurance company groups. In addition, the NAIC has adopted amendments to its model holding company law that have been adopted by some jurisdictions. The outcome of these actions is uncertain; however, these actions may result in an increase in the level of capital and liquidity required by insurance holding companies.

We cannot predict whether any specific state or federal measures will be adopted to change the nature or scope of the regulation of insurance or what effect any such measures would have on Allstate. We are working for changes in the regulatory environment to make insurance more available and affordable for customers, encourage market innovation, improve driving safety, strengthen cybersecurity, and promote better catastrophe preparedness and loss mitigation. Agent and Broker Compensation. In recent years, several states considered new legislation or regulations regarding the compensation of agents and

brokers by insurance companies. The proposals ranged in nature from new disclosure requirements to new duties on insurance agents and brokers in dealing with customers.

Limitations on Dividends by Insurance Subsidiaries. As a holding company with no significant business operations of its own, The Allstate Corporation relies on dividends from Allstate Insurance Company as one of the principal sources of cash to pay dividends and to meet its obligations, including the payment of principal and interest on debt or to fund non-insurance-related businesses. Allstate Insurance Company is regulated as an insurance company in Illinois, and its ability to pay dividends is restricted by Illinois law. For additional information regarding those restrictions, see Part II, Item 7 - Management's Discussion and Analysis of Financial Condition and Results of Operations of this report. The laws of the other jurisdictions that generally govern our other insurance subsidiaries contain similar limitations on the payment of dividends. However, such laws in some jurisdictions may be more restrictive.

Insurance Holding Company Regulation – Change of Control. The Allstate Corporation and Allstate Insurance Company are insurance holding companies subject to regulation in the jurisdictions in which their insurance subsidiaries do business. In the U.S., these subsidiaries are organized under the insurance codes of Florida, Illinois, Massachusetts, New Jersey, New York, Texas, and Wisconsin. Additionally, some of these subsidiaries are considered commercially domiciled in California and Florida.

Generally, the insurance codes in these states provide that the acquisition or change of "control" of a domestic or commercially domiciled insurer or of any person that controls such an insurer cannot be consummated without the prior approval of the relevant insurance regulator. In general, a presumption of "control" arises from the ownership, control, possession with the power to vote, or possession of proxies with respect to ten percent or more of the voting securities of an insurer or of a person who controls an insurer. In addition, certain state insurance laws require pre-acquisition notification to state agencies of a change in control with respect to a non-domestic insurance company licensed to do business in that state. While such pre-acquisition notification statutes do not authorize the state agency to disapprove the change of control, such statutes do authorize certain remedies, including the issuance of a cease-and-desist order with respect to the non-domestic insurer if certain conditions exist, such as undue market concentration.

Thus, any transaction involving the acquisition of ten percent or more of The Allstate Corporation's common stock would generally require prior approval by the state insurance departments in California, Florida, Illinois, Massachusetts, New Jersey, New York, Texas and Wisconsin. Moreover, notification would be required in those other states that have adopted pre-acquisition notification provisions and where the

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insurance subsidiaries are admitted to transact business. Such approval requirements may deter, delay or prevent certain transactions affecting the ownership of The Allstate Corporation's common stock.

Rate Regulation. Nearly all states have insurance laws requiring personal property and casualty insurers to file rating plans, policy or coverage forms, and other information with the state's regulatory authority. In many cases, such rating plans, policy forms, or both must be approved prior to use.

The speed with which an insurer can change rates in response to competition or increasing costs depends, in part, on whether the rating laws are (i) prior approval, (ii) file-and-use or (iii) use-and-file laws. In states having prior approval laws, the regulator must approve a rate before the insurer may use it. In states having file-and-use laws, the insurer does not have to wait for the regulator's approval to use a rate, but the rate must be filed with the regulatory authority prior to being used. A use-and-file law requires an insurer to file rates within a certain period of time after the insurer begins using them. Eighteen states, including California and New York, have prior approval laws. Under all three types of rating laws, the regulator has the authority to disapprove a rate filing.

An insurer's ability to adjust its rates in response to competition or to changing costs is dependent on an insurer's ability to demonstrate to the regulator that its rates or proposed rating plan meets the requirements of the rating laws. In those states that significantly restrict an insurer's discretion in selecting the business that it wants to underwrite, an insurer can manage its risk of loss by charging a rate that reflects the cost and expense of providing the insurance. In those states that significantly restrict an insurer's ability to charge a rate that reflects the cost and expense of providing the insurance, the insurer can manage its risk of loss by being more selective in the type of business it underwrites. When a state significantly restricts both underwriting and pricing, it becomes more difficult for an insurer to maintain its profitability.

From time to time, the personal lines insurance industry comes under pressure from state regulators, legislators, and special-interest groups to reduce, freeze, or set rates at levels that do not correspond with our analysis of underlying costs, catastrophe loss exposure, and expenses. We expect this kind of pressure to persist. Allstate and other insurers are using increasingly sophisticated pricing models and rating plans that are reviewed by regulators and special-interest groups. State regulators may interpret existing law or rely on future legislation or regulations to impose new restrictions that adversely affect profitability or growth. We cannot predict the impact on our business of possible future legislative and regulatory measures regarding insurance rates.

Involuntary Markets. As a condition of maintaining our licenses to write personal property and casualty insurance in various states, we are required to participate in assigned risk plans, reinsurance facilities, and joint underwriting associations that provide various types of insurance coverage to individuals or

entities that otherwise are unable to purchase such coverage from private insurers. Underwriting results related to these arrangements, which tend to be adverse, have been immaterial to our results of operations.

For a discussion of these items see Note 14 of the consolidated financial statements. Note 14 is incorporated in this Part I, Item 1 by reference.

Indemnification Programs. We are a participant in state-based industry pools, facilities or associations, mandating participation by insurers offering certain coverage in their state, including the Michigan Catastrophic Claims Association, the New Jersey Property-Liability Insurance Guaranty Association, the North Carolina Reinsurance Facility and the Florida Hurricane Catastrophe Fund. We also participate in the Federal Government National Flood Insurance Program.

For a discussion of these items see Note 10 of the consolidated financial statements. Note 10 is incorporated in this Part I, Item 1 by reference.

Guaranty Funds. Under state insurance guaranty fund laws, insurers doing business in a state can be assessed, up to prescribed limits, in order to cover certain obligations of insolvent insurance companies. We do not anticipate any material adverse financial impact on Allstate from these assessments.

Investment Regulation. Our insurance subsidiaries are subject to regulations that require investment portfolio diversification and that limit the amount of investment in certain categories. Failure to comply with these rules leads to the treatment of non-conforming investments as non-admitted assets for purposes of measuring statutory surplus. Further, in some instances, these rules require divestiture of non-conforming investments.

Exiting Geographic Markets; Canceling and Non-Renewing Policies. Most states regulate an insurer's ability to exit a market. For example, states may limit, to varying degrees, an insurer's ability to cancel and non-renew policies. Some states restrict or prohibit an insurer from withdrawing one or more types of insurance business from the state, except pursuant to a plan that is approved by the state insurance department. Regulations that limit cancellation and non-renewal and that subject withdrawal plans to prior approval requirements may restrict an insurer's ability to exit unprofitable markets.

Variable Life Insurance and Registered Fixed Annuities. The sale and administration of variable life insurance and registered fixed annuities with market value adjustment features are subject to extensive regulatory oversight at the federal and state level, including regulation and supervision by the Securities and Exchange Commission ("SEC") and the Financial Industry Regulatory Authority ("FINRA").

Broker-Dealers, Investment Advisors and Investment Companies. The Allstate entities that operate as broker-dealers, registered investment advisors, and investment companies are subject to

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regulation and supervision by the SEC, FINRA and/or, in some cases, state securities administrators. Certain state and federal regulators, such as the SEC, are considering implementation of best interest standards. Such proposals, if effective, could impact products provided by Allstate agencies and Allstate's broker-dealers, their sales processes, volumes, and producer compensation arrangements.

Dodd-Frank: Covered Agreement. The Secretary of the Treasury (operating through FIO) and the Office of the U.S. Trade Representative ("USTR") are jointly authorized, pursuant to the Dodd-Frank, to negotiate Covered Agreements. A Covered Agreement is a bilateral or multilateral agreement that "relates to the recognition of prudential measures with respect to the business of insurance or reinsurance that achieves a level of protection for insurance or reinsurance consumers that is substantially equivalent to the level of protection achieved under State insurance or reinsurance regulation."

On September 22, 2017, the U.S. and European Union ("EU") signed a Covered Agreement. In addition to signing the Covered Agreement, Treasury and the USTR jointly issued a policy statement clarifying how the U.S. views implementation of certain provisions of the Covered Agreement. The policy statement affirms the U.S. system of insurance regulation, including the role of state insurance regulators as the primary supervisors of the business of insurance and addresses several other key provisions of the Covered Agreement for which constituents sought clarity, including prospective application to reinsurance agreements and an affirmation that the Covered Agreement does not require development of a group capital standard or group capital requirement in the U.S.

The U.S. has five years from the date of signing to amend its credit for reinsurance laws and regulations to conform with the requirements of the Covered Agreement or face federal preemption determinations by the FIO. To address the requirements of the Covered Agreement, the NAIC has formally adopted plans to revise the existing credit for reinsurance model law and model regulation to conform with the requirements of the Covered Agreement with the expectation that states will adopt and implement the modified model law and regulation. In addition, the NAIC plans to adopt reinsurance collateral requirements for reinsurers domiciled in NAIC qualified jurisdictions, other than those in the EU, consistent with those in the Covered Agreement provided the qualified jurisdictions also comply with the group capital mutual recognition and information sharing provisions of the Covered Agreement.

On December 18, 2018, the U.S. and the United Kingdom ("UK") signed a separate Covered Agreement consistent with the U.S.-EU Covered Agreement to coordinate regulation of the insurance industry doing business in the U.S. and UK in the event the UK leaves the EU in March 2019. Consistent with steps taken when the U.S. signed the U.S.-EU Covered Agreement in 2017, Treasury and the USTR also issued a policy statement regarding implementation of the U.S.-UK Covered Agreement affirming the role that state

insurance regulators play as the primary supervisors of the insurance industry. The signing begins a review period in the UK that lasts for 21 legislative days. The Covered Agreement has also been submitted to Congress on December 11, 2018 for a period of 90 calendar days after which the U.S.-UK Covered Agreement may become effective without further congressional approval.

Division Statute. On November 27, 2018, the Illinois General Assembly passed legislation authorizing a statute that makes available a process by which a domestic insurance company may divide into two or more domestic insurance companies. The statute could be used to isolate an existing block of life, health, annuity or property-casualty business for sale to a third party or to manage risks associated with indemnification programs. The statute could also be used to divide continuing blocks of insurance business from insurance business that is no longer marketed, or otherwise has been discontinued, into separate companies with separate capital. Before a plan of division can be effected, it must be approved according to the organizational documents of the dividing insurer and submitted for approval by the Illinois Department of Insurance. The bill was effective January 1, 2019. The Illinois Department of Insurance will likely promulgate rules and the rule-making process will take several months once filed.

Privacy Regulation and Data Security. Federal law and the laws of many states require financial institutions to protect the security and confidentiality of customer information and to notify customers about their policies and practices relating to collection and disclosure of customer information and their policies relating to protecting the security and confidentiality of that information. Federal law and the laws of many states also regulate disclosures and

disposal of customer information. Congress, state legislatures, and regulatory authorities are expected to consider additional regulation relating to privacy and other aspects of customer information.

Asbestos. Congress has repeatedly considered legislation to address asbestos claims and litigation in the past. In February 2017, legislation was introduced in the House titled the Furthering Asbestos Claims Transparency Act of 2017 (the "FACT Act"). The FACT Act requires transparency of asbestos trust funds that are formed under a reorganization plan following the discharge in bankruptcy of a debtor corporation, quarterly reports on claims made to the trusts, and the release of information sought by defendants in asbestos lawsuits. The House Judiciary Committee approved the FACT Act, but a full House vote has not occurred. In 2017, the House introduced an additional bill called the Fairness in Class Action Litigation Act of 2017. This legislation passed the House and is with the Senate Judiciary Committee. We cannot predict the impact on our business of possible future legislative measures regarding asbestos.

Environmental. Environmental pollution and clean-up of polluted waste sites is the subject of federal and state regulation. The Comprehensive Environmental Response Compensation and Liability

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Act of 1980 (the "Superfund") and comparable state statutes (the "mini-Superfunds") govern the clean-up and restoration of waste sites by Potentially Responsible Parties ("PRPs"). The Superfund and the mini-Superfunds (collectively, the "Environmental Clean-up Laws" or "ECLs") establish a mechanism to assign liability to PRPs or to fund the clean-up of waste sites if PRPs fail to do so. The extent of liability to be allocated to a PRP depends on a variety of factors. The insurance industry is involved in extensive litigation regarding coverage issues arising out of the clean-up of waste sites by insured PRPs and the insured parties' alleged liability to third parties responsible for the clean-up. The insurance industry, including Allstate, has disputed and is disputing many such claims. Key coverage issues include whether the Superfund response, investigation, and clean-up costs are considered damages under the policies; whether coverage has been triggered; whether any pollution exclusion applies; whether there has been proper notice of claims; whether administrative liability triggers the duty to defend; whether there is an appropriate allocation of liability among triggered insurers; and whether the liability in question falls within the definition of an "occurrence." Identical coverage issues exist for clean-up and waste sites not covered under the Superfund. To date, courts have been inconsistent in their rulings on these issues.

Allstate's exposure to liability with regard to its insureds that have been, or may be, named as PRPs is uncertain. While comprehensive Superfund reform proposals have been introduced in Congress, only modest reform measures have been enacted. In May 2017, the Environmental Protection Agency created a Superfund Task Force that issued proposed reforms in a July 2018 report. These recommendations address expediting clean-up and remediation processes, reducing the financial burden of the clean-up process, encouraging private investment, promoting redevelopment and community revitalization, and building and strengthening partnerships. We cannot predict which, if any, of these reforms will be enacted.

Website

Our website is allstate.com. The Allstate Corporation's annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to such reports that we file or furnish pursuant to Section 13(a) of the Securities Exchange Act of 1934 are available on the Investor Relations section of our website (www.allstateinvestors.com), free of charge, as soon as reasonably practicable after they are electronically filed or furnished to the SEC. In addition, our Corporate Governance Guidelines, our Global Code of Business Conduct, and the charters of our Audit Committee, Compensation and Succession Committee, Executive Committee, Nominating and Governance Committee, and Risk and Return Committee are available on the Investor Relations section of our website and in print to any stockholder who requests copies by contacting Investor Relations, The Allstate Corporation, 2775 Sanders Road, Northbrook, Illinois 60062-6127, 1-847-402-2800. The information found on our website is not incorporated by reference into this Annual Report on Form 10-K or in any other report or document filed with the SEC.

Other Information About Allstate

As of December 31, 2018, Allstate had approximately 45,140 full-time employees and 560 part-time employees. Allstate's seven reportable segments use shared services, including human resources, investment, finance, information technology and legal services, provided by Allstate Insurance Company and other affiliates.

Although the insurance business generally is not seasonal, claims and claims expense for the Allstate Protection segment tend to be higher for periods of severe or inclement weather.

"Allstate" is a very well-recognized brand name in the United States. We use the "Allstate," "Esurance," "Encompass" and "Answer Financial" brands extensively in our business. We also provide additional protection products and services through "SquareTrade", "Arity", "InfoArmor", "Allstate Roadside Services", "Allstate Dealer Services" and "Allstate Benefits These brands, products and services are supported with the related service marks, logos, and slogans. Our rights in the United States to these names, service marks, logos and slogans continue as long as we continue to use them in commerce. Many service marks used by Allstate are the subject of renewable U.S. and/or foreign service mark registrations. We believe that these service marks are important to our business and we intend to maintain our rights to them.

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Executive Officers of the Registrant

The following table sets forth the names of our executive officers, their ages as of February 1, 2019, their positions, business experience, and the years of their first election as officers. "AIC" refers to Allstate Insurance Company. Each of the officers named below may be removed from office at any time, with or without cause, by the board of directors of the relevant company.

Name	Age	e Position with Allstate and Business Experience	Year First Elected Officer
Thomas J. Wilson	61	Chair of the Board (May 2008 to present), President (June 2005 to January 2015 and February 2018 to present), and Chief Executive Officer (January 2007 to present) of The Allstate Corporation and AIC.	1995
Elizabeth A. Brady	54	Executive Vice President and Chief Marketing, Innovation and Corporate Relations Officer of AIC (August 2018 to present); Senior Vice President, Global Brand Management, at Kohler Co. (November 2013 to July 2018).	2018
Don Civgin	57	President, Service Businesses of AIC (January 2018 to present); President, Emerging Businesses of AIC (February 2015 to January 2018); President and Chief Executive Officer, Allstate Financial of AIC (March 2012 to February 2015).	2008
John E. Dugenske	52	Executive Vice President and Chief Investment and Corporate Strategy Officer of AIC (January 2018 to present); Executive Vice President and Chief Investment Officer of AIC (March 2017 to January 2018); Group Managing Director and Global Head of Fixed Income at UBS Global Asset Management (December 2008 to February 2017).	2017
Eric K. Ferren	45	Senior Vice President, Controller, and Chief Accounting Officer of The Allstate Corporation (May 2017 to present) and of AIC (December 2017 to present); Senior Vice President of External Reporting and Corporate Accounting of AIC (April 2014 to December 2017); Chief Financial Officer of HSBC Bank USA, N.A. (January 2014 to April 2014); Chief Accounting Officer of HSBC North America Holdings Inc. (July 2010 to April 2014).	2014
Mary Jane Fortin	54	President, Allstate Financial Businesses of AIC (February 2017 to present); President, Allstate Life and Retirement of AIC (October 2015 to February 2017); Executive Vice President and Chief Financial Officer, Global Consumer Insurance of AIG (April 2012 to September 2015).	2015
Suren Gupta	57	Executive Vice President, Enterprise Technology and Strategic Ventures of AIC (February 2015 to present); Executive Vice President, Allstate Technology and Operations of AIC (April 2011 to February 2015).	2011
Susan L. Lees	61	Executive Vice President, General Counsel, and Secretary of The Allstate Corporation (May 2013 to present) and of AIC (June 2013 to present); Executive Vice President and General Counsel of The Allstate Corporation (June 2012 to May 2013) and of AIC (June 2012 to June 2013).	2008
Jesse E. Merten	44	Executive Vice President and Chief Risk Officer of AIC (December 2017 to present) and Treasurer of The Allstate Corporation (January 2015 to present) and of AIC (February 2015 to present); Senior Vice President and Chief Financial Officer, Allstate Financial of	2012

AIC (January 2012 to February 2015).

Mario Rizzo	52	Executive Vice President and Chief Financial Officer of The Allstate Corporation and AIC (January 2018 to present); Senior Vice President and Chief Financial Officer, Allstate Personal Lines of AIC (February 2015 to January 2018); Senior Vice President and Treasurer of The Allstate Corporation (November 2010 to January 2015) and of AIC (November 2010 to February 2015).	2010
Glenn T. Shapiro	53	President, Allstate Personal Lines of AIC (January 2018 to present); Executive Vice President, Claims of AIC (April 2016 to January 2018); Executive Vice President and Chief Claims Officer of Liberty Mutual Commercial Insurance (May 2011 to March 2016).	2016
Steven E. Shebik	62	Vice Chair of The Allstate Corporation and AIC (January 2018 to present); Executive Vice President and Chief Financial Officer of The Allstate Corporation (February 2012 to January 2018) and of AIC (March 2012 to January 2018).	1999

Forward-Looking Statements

This report contains "forward-looking statements" that anticipate results based on our estimates, assumptions and plans that are subject to uncertainty. These statements are made subject to the safe-harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements do not relate strictly to historical or current facts and may be identified by their use of words like "plans," "seeks," "expects," "will," "should," "anticipates," "estimates," "intends," "believes," "likely," "targets" and other words with similar meanings. These statements may address, among other things, our strategy for growth, catastrophe exposure management, product development, investment results, regulatory approvals, market position, expenses, financial results, litigation and reserves. We believe that these statements are based on reasonable estimates, assumptions and plans. Forward-looking statements speak only as of the date on which they are made, and we assume no obligation to update any forward-looking statements as a result of new information or future events or developments. In addition, forward-looking statements are subject to certain risks or uncertainties that could cause actual results to differ materially from those communicated in these forward-looking statements. These risks and uncertainties include, but are not limited to, those described in Part 1, "Item 1A. Risk Factors" and elsewhere in this report and those described from time to time in our other reports filed with the Securities and Exchange Commission.

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Item 1A. Risk Factors

In addition to the normal risks of business, significant risks and uncertainties, including those listed below, apply to us as an insurer, investor and provider of other products and financial services. Risks have been categorized as follows:

- Insurance Industry
- Financial
- Investment
- Operational
- Regulatory and Legal

• Strategic

These cautionary statements should be considered carefully together with other factors discussed elsewhere in this document, in filings with the Securities and Exchange Commission ("SEC") or in materials incorporated therein by reference.

Insurance Industry Risks

Catastrophes and severe weather events may subject property and casualty businesses to significant losses. Our property and casualty business may be exposed to catastrophic events caused by various events, some of which may be exacerbated by climate change, such as wildfires, tornadoes, tsunamis, hurricanes, tropical storms, earthquakes, volcanic eruptions, solar flares, terrorism or industrial accidents which could cause operating results to vary significantly from one period to the next, despite our catastrophe management programs. Our auto and property insurance business may incur catastrophe losses in excess of: (1) those experienced in prior years, (2) the average expected level used in pricing, (3) current reinsurance coverage limits or (4) loss estimates from external hurricane and earthquake models at various levels of probability. For example, historical catastrophe experience includes losses relating to named storm Sandy in 2012 totaling \$1.2 billion, Hurricane Katrina in 2005 totaling \$3.6 billion and the Northridge earthquake of 1994 totaling \$2.1 billion. We are also exposed to assessments from the California Earthquake Authority, Texas Windstorm Insurance Association, various state-created insurance facilities, and to losses that could surpass the capitalization of these facilities. Settlement of catastrophes have historically been financed from operating cash flows, including very large catastrophes that had complicated issues resulting in settlement delays, however, our liquidity could be constrained by a catastrophe, or multiple catastrophes, which could result in extraordinary losses or a downgrade of our debt or financial strength ratings.

Property and casualty businesses are subject to claims arising from weather events such as winter storms, rain, hail and high winds. The incidence and severity of weather conditions are largely unpredictable. There is generally an increase in the frequency and severity of auto and property claims when severe weather conditions occur. The extent of losses from a catastrophe is a function of the total amount of insured exposure

affected by the event, the severity of the event and the coverage provided, which can be both property and casualty coverages. Increases in the value and geographic concentration of insured property, the number of policyholders exposed to certain events and the effects of inflation could increase the severity of claims from catastrophic events in the future. For example, the specific geographic location impacted by tornadoes is inherently random and unpredictable and the specific location impacted by a tornado may or may not be highly populated and may or may not have a high concentration of our insured exposures.

Property and casualty results of operations and financial condition may be adversely affected due to limitations in the analytical models used to assess and predict the exposure to catastrophe losses

Along with others in the insurance industry, models developed internally and by third party vendors are used along with our own historical data in assessing property insurance exposure to catastrophe losses. These models assume various conditions and probability scenarios. Such models do not necessarily accurately predict future losses or measure losses currently incurred. Further, the accuracy of such models may be negatively impacted by changing climate conditions. Catastrophe models use historical information and scientific research about natural events, such as hurricanes and earthquakes, as well as detailed information about our in-force business. This information is used in

connection with pricing and risk management activities. However, since actual catastrophic events vary considerably, there are limitations with respect to its usefulness in predicting losses in any reporting period. Other limitations are evident in significant variations in estimates between models, material increases and decreases in results due to model changes and refinements of the underlying data elements and actual conditions that are not yet well understood or may not be properly incorporated into the models.

Our catastrophe management strategy may adversely affect premium growth

Due to catastrophe risk management efforts, the size of our homeowners business has been negatively impacted in the past and may be negatively impacted if further actions are taken. Homeowners premium growth rates and retention could be adversely impacted by adjustments to our business structure, size and underwriting practices in markets with significant severe weather and catastrophe risk exposure.

Unexpected increases in the frequency or severity of property and casualty claims may adversely affect our results of operations and financial condition

The property and casualty businesses may experience volatility in claim frequency from time to time, and short-term trends may not continue over the longer term. Changes in auto claim frequency may result from changes in mix of business, miles driven, weather, distracted driving or other macroeconomic

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factors. A significant increase in claim frequency could have an adverse effect on our results of operations and financial condition.

Changes in bodily injury claim severity are impacted by inflation in medical costs, litigation trends and precedents, regulation and the overall safety of automobile travel. Changes in auto property damage claim severity are driven primarily by inflation in the cost to repair vehicles, including parts and labor rates, the mix of vehicles that are declared total losses, model year mix as well as used car values. Changes in homeowners claim severity are driven by inflation in the construction industry, building materials and home furnishings, changes in the mix of loss type, and by other economic and environmental factors, including short-term supply imbalances for services and supplies in areas affected by catastrophes. Increases in claim severity can arise from unexpected events that are inherently difficult to predict. Although various loss management initiatives are pursued to mitigate future increases in claim severity, there can be no assurances that these initiatives will successfully identify or reduce the effect of future increases in claim severity.

Changes in the level of price competition and the use of underwriting standards in the property and casualty businesses may adversely affect our results of operations and financial condition

The personal property-liability market is highly competitive with carriers competing through advertising, price and customer service and distribution. Companies can choose to alter underwriting standards, lower prices and increase advertising, which could result in diminished growth or profitability for Allstate. In addition, external factors such as weather or macro-economic conditions can impact the frequency or cost of losses, which impact market dynamics. A downturn in the growth or profitability of the property and casualty businesses could have a material effect on our results of operations and financial condition.

Pricing for our products is subject to our ability to adequately assess risks, estimate losses and comply with state insurance regulations. Inadequate pricing could have a material adverse effect on our results of operations and financial condition. Additionally, we may increase premium rates and adopt tighter underwriting standards, which may result in a decline in new business and renewals. We may offer discounts for new customers and adopt less restrictive underwriting standards, which may lead to increased new business and renewals and higher losses. In either event, our competitive position, results of operations and financial condition could be adversely impacted. Reinsurance may be unavailable at current levels and prices, which may limit our ability to write new business Market conditions beyond our control impact the availability and cost of the reinsurance we purchase. No assurances can be made that reinsurance will remain continuously available to us to the same extent and on the same terms and rates as is currently available. Our personal lines catastrophe reinsurance program was designed, utilizing our risk management

methodology, to address our exposure to catastrophes nationwide. For example, our ability to afford reinsurance to reduce our catastrophe risk in designated areas may be dependent upon our ability to adjust premium rates for its cost, and there are no assurances that the terms and rates for our current reinsurance program will continue to be available in future years. If we were unable to maintain our current level of reinsurance or purchase new reinsurance protection in amounts that we consider sufficient at acceptable prices, we would have to either accept an increase in our catastrophe exposure, reduce our insurance writings, or develop or seek other alternatives.

Reinsurance subjects us to counterparty risk and may not be adequate to protect us against losses arising from ceded insurance, which could have a material effect on our results of operations and financial condition

The collectability of reinsurance recoverables is subject to uncertainty arising from a number of factors, including changes in market conditions, whether insured losses meet the qualifying conditions of the reinsurance contract, duration of the collections and whether reinsurers, their affiliates, or certain regulatory bodies have the financial capacity and willingness to make payments under the terms of a reinsurance treaty or contract. Additionally, reinsurance placed in the catastrophe bond market may not provide the same level of coverage as reinsurance placed in the traditional market. Any disruption, volatility and uncertainty in the financial markets may decrease our ability to access such market on favorable terms or at all. Our inability to recover from a reinsurer could have a material effect on our results of operations and financial condition.

Changing climate and weather conditions may adversely affect our financial condition, profitability or cash flows

Climate change may affect the occurrence of certain natural events, such as an increase in the frequency or severity of wind and thunderstorm events, eruptions of volcanoes and tornado or hailstorm events due to increased convection in the atmosphere; more frequent wildfires in certain geographies; higher incidence of deluge flooding and the potential for an increase in severity of the hurricane events due to higher sea surface temperatures. Additionally, there may be an impact on the demand, price and availability of automobile and homeowners insurance, reinsurance coverages as well as the value of our investment portfolio. Due to significant variability associated with future changing climate conditions we are unable to predict the impact climate change will have on our businesses.

Underwriting changes and actual experience could materially affect profitability and financial condition of our life, voluntary benefits and annuity businesses

Our product pricing includes long-term assumptions regarding investment returns, mortality, morbidity, persistency and operating costs and expenses of the business. We establish target returns

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for each product based upon these factors and the average amount of capital we must hold to support in-force contracts taking into account rating agencies and regulatory requirements. We monitor and manage pricing and overall sales mix to achieve target new business returns on a portfolio basis, which could result in the discontinuation or de-emphasis of products and a decline in sales. Profitability from new business emerges over a period of years depending on the nature and life of the product and is subject to variability as actual results may differ from pricing assumptions. Additionally, many of our products have fixed or guaranteed terms that limit our ability to increase revenues or reduce benefits, including credited interest, once the product has been issued.

Many voluntary benefits employer contracts are renewed annually. There is a risk that employers may be able to obtain more favorable terms from competitors than they could by renewing coverage with us. These competitive pressures may adversely affect the persistency of these products, as well as our ability to sell products.

Profitability depends on the sufficiency of premiums and contract charges to cover mortality and morbidity benefits, the adequacy of investment spreads, the persistency of policies, the management of market and credit risks associated with investments, and the management of operating costs and expenses within anticipated pricing allowances. Legislation and regulation of the insurance marketplace and products could also affect our profitability and financial condition.

Actual claims incurred may exceed current reserves established for claims including claims relating to asbestos, environmental and other discontinued lines, which may adversely affect our results of operations and financial condition

Recorded claim reserves, including case reserves and incurred but not reported claims reserves ("IBNR"), are based on our best estimates of losses after considering known facts and interpretations of the circumstances, including settlement agreements. Additionally, models that rely on the assumption that past loss development patterns will persist into the future are used. Internal factors are considered including our experience with similar cases, actual claims paid, historical trends involving claim payment patterns, pending levels of unpaid claims, loss management programs, product mix, contractual terms and changes in claim reporting and settlement practices. External factors are also considered, such as court decisions, changes in law and litigation imposing unintended coverage. We also consider benefits, such as disallowing the use of benefit payment schedules, requiring coverage designed to cover losses that occur in a single policy period to losses that develop continuously over multiple policy periods or requiring the availability of multiple limits. Regulatory requirements and economic conditions are also considered. Since reserves are estimates of the unpaid portion of losses that have occurred, including IBNR losses, the

establishment of appropriate reserves, including reserves for catastrophes, is an inherently uncertain and complex process that is continually refined to reflect current estimation processes and practices. The ultimate cost of losses may vary materially from recorded reserves and such variance may adversely affect our results of operations and financial condition as the reserves and reinsurance recoverables are reestimated.

Furthermore, the process of estimating asbestos, environmental and other discontinued lines liabilities is inherently uncertain. The process is complicated by legal issues concerning, among other things, the interpretation of various insurance policy provisions, whether losses are covered or were intended to be covered and whether losses could be recoverable through retrospectively determined premium, reinsurance or other contractual agreements.

Asbestos-related bankruptcies and litigation are complex, lengthy proceedings that involve substantial uncertainty for insurers. Actuarial techniques, databases and reinsurance assumptions used in estimating asbestos, environmental and other discontinued lines net loss reserves may prove to be inadequate indicators of the extent of probable loss. Ultimate net losses from these discontinued lines could materially exceed established loss reserves and expected recoveries and have a material effect on our results of operations and financial condition as the reserves are reestimated.

Changes in reserve estimates for our life, voluntary benefits and annuity businesses may adversely affect our results of operations

The reserve for life-contingent contract benefits payable under insurance policies, including traditional life insurance, life-contingent immediate annuities and voluntary accident and health insurance products, is computed on the basis of

long-term actuarial assumptions of future investment yields, mortality, morbidity, persistency and expenses. Future investment yields may be lower than our current projections. Mortality may continue to improve due to medical advancements, resulting in policyholders living longer than anticipated. We periodically review the adequacy of these reserves and if future experience differs significantly from assumptions, adjustments to reserves and amortization of deferred policy acquisition costs ("DAC") may be required that could have a material effect on our results of operations. We also review these policies for circumstances where projected profits would be recognized in early years followed by projected losses in later years. If this circumstance exists, we will be required to accrue a liability during the period of profits to offset the losses at such time as the future losses are expected to commence. Prior to fourth quarter 2017, we evaluated our traditional life insurance products and immediate annuities with life contingencies on an aggregate basis. In conjunction with the segment changes that occurred in the fourth quarter of 2017, traditional life insurance products, immediate annuities with life contingencies, and voluntary accident and health insurance products are reviewed individually. This increases the risk that

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we will have to record a premium deficiency adjustment in the future for immediate annuities with life contingencies. Changes to accounting guidance for long-duration insurance contracts such as traditional life, life-contingent immediate annuities and certain voluntary accident and health insurance products may have a material effect on reserves and shareholders' equity and could adversely impact financial strength ratings. For a description of changes in accounting standards see Note 2 of the consolidated financial statements.

Changes in estimates of profitability on interest-sensitive life products may adversely affect our profitability and financial condition

DAC related to interest-sensitive life contracts is amortized in proportion to actual historical gross profits and estimated future gross profits ("EGP") over the estimated lives of the contracts. The principal assumptions for determining the amount of EGP are mortality, persistency, expenses, investment returns, including capital gains and losses on assets supporting contract liabilities, interest crediting rates to contractholders, and the effects of any hedges. Updates to these assumptions, commonly referred to as "DAC unlocking," could result in accelerated amortization of DAC and thereby adversely affect our profitability and financial condition. In addition, assumption changes impact the reserve for secondary guarantees on interest-sensitive life insurance and could also lead to volatility in net income. Financial Risks

Conditions in the global economy and capital markets could adversely affect our business and results of operations Conditions in the global economy and capital markets could have an adverse effect on our business and results of operations. This includes high and sustained unemployment in certain regions and lower labor participation rates in others, reduced consumer spending, low economic growth, lower residential and commercial real estate prices, substantial increases in delinquencies on consumer debt, the relatively low availability of credit and ineffective central bank monetary policies.

Stressed conditions, volatility and disruptions in global capital markets, particular markets or financial asset classes could adversely affect our investment portfolio. Disruptions in one market or asset class can also spread to other markets or asset classes. In addition, events in the U.S. or foreign markets, such as the United Kingdom's planned exit from the European Union ("EU") in March 2019, can impact the global economy and capital markets. The impact of such events is difficult to predict.

In the years since the financial crisis, the central banks of most developed countries have pursued highly accommodative monetary policies. Higher volatility and less certainty in capital markets may continue as the U.S. Federal Reserve, through the Federal Open Market Committee, raises interest rates and as global monetary policies diverge.

On July 27, 2017, the U.K. Financial Conduct Authority (the "FCA"), which regulates the London interbank offered rate ("LIBOR"), announced that the FCA will no longer persuade or compel banks to submit rates for the calculation of LIBOR after 2021. This announcement indicates that the continuation of LIBOR on the current basis is not guaranteed after 2021, and LIBOR may be discontinued or modified by 2021.

The Federal Reserve Bank of New York began publishing the Secured Overnight Financing Rate ("SOFR") in April 2018 as an alternative for LIBOR. SOFR is a broad measure of the cost of borrowing cash overnight collateralized by U.S. Treasury securities. A transition away from the widespread use of LIBOR to SOFR or another benchmark rate may occur over the course of the next few years.

We have exposure to LIBOR-based financial instruments, such as securities we have issued or may issue in the future, including our floating rate senior notes and subordinated debentures, and LIBOR-based securities and derivatives held in our investment portfolio. Certain of our contracts allow for the use of an alternative benchmark rate if LIBOR is no longer available. At this time, we cannot predict the overall effect of the modification or discontinuation of LIBOR or the establishment of alternative benchmark rates.

Protectionist trade policy actions, such as tariffs and quotas, could have an adverse effect on our results of operations and financial condition through an increase in claim severity. Such trade policy actions could also adversely affect our investment results, as an increase in the scope and size of tariffs could disrupt global supply chains and increase inflationary pressures which may have an adverse effect on economic activity.

General economic conditions could adversely affect us by impacting consumer behavior and pressuring investment results. Consumer behavior changes may include decreased demand for our products; for example, if consumers purchase fewer automobiles, sales of auto insurance may decline. Also, if consumers become more cost conscious, they may choose lower levels of auto and homeowners insurance. In addition, holders of interest-sensitive life insurance and annuity products may engage in an elevated level of discretionary withdrawals of contractholder funds. Investment results could be adversely affected as deteriorating financial and business conditions affect the issuers of the securities in the investment portfolio.

A downgrade in financial strength ratings may have an adverse effect on our competitive position, the marketability of our product offerings, liquidity, access to and cost of borrowing, results of operations and financial condition Financial strength ratings are important factors in establishing the competitive position of insurance companies and generally have an effect on an insurance company's business. Rating agencies continuously review our financial performance and condition. They could downgrade or change the

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outlook on our ratings due to a change in the financial profile of one of our insurance companies, a change in a rating agency's determination of the amount of risk-adjusted capital required to maintain a particular rating, an increase in the perceived risk of our investment portfolio, a reduced confidence in management or our business strategy, as well as a number of other considerations that may or may not be under our control. The insurance financial strength ratings of Allstate Insurance Company, Allstate Life Insurance Company, Allstate Assurance Company and The Allstate Corporation's senior debt ratings from A.M. Best, S&P Global Ratings and Moody's are subject to continuous review and the retention of current ratings cannot be assured. A downgrade in any of these ratings could have a material effect on our sales, competitiveness, retention, the marketability of our product offerings, liquidity, access to and cost of borrowing, results of operations and financial condition.

Adverse capital and credit market conditions may significantly affect our ability to meet liquidity needs or obtain credit on acceptable terms

In periods of extreme volatility and disruption in the capital and credit markets, liquidity and credit capacity may be severely restricted. In such circumstances, our ability to obtain capital to fund operating expenses, financing costs, capital expenditures or acquisitions may be limited, and the cost of any such capital may be significant. Our access to additional financing depends on a variety of factors such as market conditions, the general availability of credit, the overall availability of credit to our industry, our credit ratings and credit capacity, as well as lenders' perception of our long- or short-term financial prospects. Similarly, our access to funds may be impaired if regulatory authorities or rating agencies take negative actions. If a combination of these factors were to occur, our internal sources of liquidity may prove to be insufficient, and in such case, we may not be able to successfully obtain additional financing on favorable terms.

We may be required to recognize impairments in the value of our goodwill, which may adversely affect our results of operations and financial condition

Goodwill represents the excess of amounts paid for acquiring businesses over the fair value of the net assets acquired. Goodwill is evaluated for impairment annually, or more frequently if conditions warrant, by comparing the carrying value, attributed equity, of a reporting unit to its estimated fair value. Market declines or other events impacting the fair value of a reporting unit could result in a goodwill impairment, resulting in a charge to income. Such a charge could have an adverse effect on our results of operations or financial condition.

The realization of deferred tax assets is subject to uncertainty

The realization of our deferred tax assets, net of valuation allowance, if any, is based on the assumption that we will be able to fully utilize the deductions that are ultimately recognized for tax purposes. However, actual results may differ from our assumptions if adequate levels of taxable income are not attained.

The ability of our subsidiaries to pay dividends may affect our liquidity and ability to meet our obligations. The Allstate Corporation is a holding company with no significant operations. Its principal assets are the stock of its subsidiaries and its directly held short-term cash and securities portfolios. Its liabilities include debt and pension and other postretirement benefit obligations related to Allstate Insurance Company employees. State insurance regulatory authorities limit the payment of dividends by insurance subsidiaries, as described in Note 16 of the consolidated financial statements. The limitations are based on statutory income and surplus. In addition, competitive pressures generally require the subsidiaries to maintain insurance financial strength ratings. These restrictions and other regulatory requirements affect the ability of the subsidiaries to make dividend payments. Limits on the ability of the subsidiaries to pay dividends could adversely affect holding company liquidity, including the ability to pay dividends to shareholders, service debt or complete share repurchase programs in the timeframe expected.

Management views enterprise capital as a combination of statutory surplus and invested assets at the parent holding company level. Deterioration in statutory surplus or earnings, from developments such as catastrophe losses, or changes in market conditions or interest rates, could adversely affect holding company liquidity by impacting the amount of dividends from subsidiaries or the utilization of invested assets at the holding company to increase statutory surplus or for other corporate purposes.

Following the reduction in the federal corporate income tax rate from 35% to 21% effective January 1, 2018 related to the Tax Cuts and Jobs Act of 2017 ("Tax Legislation"), the National Association of Insurance Commissioners ("NAIC") approved a change in the risk-based capital ("RBC") formula on June 28, 2018, to reflect the impact of the Tax Legislation on year-end 2018 RBC calculations for life insurers. Since RBC requirements are determined net of tax, the decrease in the federal tax rate results in an increase in the amount of after-tax RBC required to be held by our insurance subsidiaries. Changes in capital requirements could decrease deployable capital and potentially reduce future dividends paid by our life subsidiary companies. In addition, the NAIC has formed a working group for the development of a group capital calculation covering all entities of the insurance company group using a methodology based on aggregated risk-based capital. Although we do not expect potential revisions to impact our current dividend plans, any increase in the amount of capital or reserves our insurance subsidiaries are required to hold

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could reduce the amount of future dividends such subsidiaries are able to distribute to the holding company. Any reduction in the RBC ratios of our insurance subsidiaries could also adversely affect their financial strength ratings as determined by statistical rating agencies.

Our ability to pay dividends or repurchase stock is subject to limitations under terms of certain of our securities. The terms of the outstanding subordinated debentures prohibit us from declaring or paying any dividends or distributions on our common or preferred stock or redeeming, purchasing, acquiring, or making liquidation payments on our common stock or preferred stock if we have elected to defer interest payments on the subordinated debentures, subject to certain limited exceptions.

We are prohibited from declaring or paying dividends on preferred stock if we fail to meet specified capital adequacy, net income or shareholders' equity levels. The prohibition is subject to an exception permitting us to declare dividends out of the net proceeds of common stock issued by us during the 90 days prior to the date of declaration even if we fail to meet such levels.

We may not repurchase or pay dividends on common stock during any dividend period while our preferred stock is outstanding, unless the full preferred stock dividends for the preceding dividend period have been declared and paid or declared and a sum sufficient for the payment thereof has been set aside and any declared but unpaid preferred stock dividends for any prior period have been paid, subject to certain limited exceptions. The authorized number of directors then constituting the board of directors will be increased by two, to be elected by the holders of preferred stock together with the holders of all other affected classes and series of voting parity stock, voting as a single class, if and when dividends on preferred stock have not been declared and paid in full for at least six quarterly dividend periods, subject to certain conditions.

Investment Risks

Our investment portfolios are subject to market risk and declines in credit quality, which may adversely affect investment income and cause realized and unrealized losses

We continually reevaluate investment management strategies since we are subject to the risk of loss due to adverse changes in interest rates, credit spreads, equity prices, currency exchange rates and the liquidity of investments. Such adverse changes may occur due to changes in monetary policy and the economic climate, the liquidity of a market or market segment, investor return expectations and/or risk tolerance, insolvency or financial distress of key market makers or participants, or changes in market perceptions of credit worthiness. The performance and value of our investment portfolios are also subject to market risk related to investments in real estate, loans and securities collateralized by real estate.

Moreover, some of our investment strategies target individual investments with unique risks that are less highly correlated with broad market risks. Although we expect these investments to increase total portfolio returns over time, their performance may vary from and under-perform relative to the market.

Our investment portfolios are subject to risks associated with potential declines in credit quality related to specific issuers or specific industries and a general weakening of the economy, which are typically reflected through credit spreads. Credit spread is the additional yield on fixed income securities and loans above the risk-free rate, typically referenced as the yield on U.S. Treasury securities, that market participants require to compensate them for assuming credit, liquidity and/or prepayment risks. Credit spreads vary in response to the market's perception of risk and liquidity in a specific issuer or specific sector. Additionally, credit spreads are influenced by the credit ratings, and the reliability of those ratings, published by external rating agencies. Although we have the ability to use derivative financial instruments to manage these risks, the effectiveness of such instruments varies with liquidity and other conditions that may impact derivative and bond markets. Adverse economic conditions or other factors could cause declines in the quality and valuation of our investment portfolios that would result in realized and unrealized losses. The concentration of our investment portfolios in any particular issuer, industry, collateral type, group of related industries, geographic sector or risk type could have an adverse effect on our investment portfolios and consequently on our results of operations and financial condition.

A decline in market interest rates or credit spreads could have an adverse effect on investment income as we invest cash in new investments that may earn less than the portfolio's average yield. In a low interest rate environment,

borrowers may prepay or redeem securities more quickly than expected as they seek to refinance at lower rates. Sustained low interest rates could also lead to purchases of longer-term or riskier assets in order to obtain adequate investment yields, which could also result in a duration gap when compared to the duration of liabilities. Alternatively, longer-term assets may be sold and reinvested in shorter-term assets that may have lower yields in anticipation of rising interest rates. An increase in market interest rates or credit spreads or a decrease in liquidity could have an adverse effect on the value of our investment portfolios by decreasing the fair values of the fixed income securities that comprise a substantial majority of our investment portfolios. Declining equity markets and/or increases in interest rates or credit spreads could also cause the value of the investments in our pension plans to decrease. Declines in interest rates could cause the funding ratio to decline and the value of the obligations for our pension and postretirement plans to increase. These factors could decrease the funded status of our pension and postretirement plans, increasing the likelihood or magnitude of future benefit expense and contributions.

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The amount and timing of net investment income from our performance-based investments, which primarily includes limited partnership interests, can fluctuate significantly as a result of the underlying investments' performance. Additionally, the timing of capital contributions and distributions depends on particular events, schedules for making distributions, and cash needs related to the investments. As a result, the amount of net investment income recognized and cash contributed to or received from these investments can vary substantially from quarter to quarter. Significant volatility or market downturns could adversely impact net investment income, valuation and returns on these investments. Additionally, these investments are less liquid than similar, publicly-traded investments. A decline in market liquidity could impact our ability to sell these investments.

The determination of the amount of realized capital losses recorded for impairments of our investments includes subjective judgments and could materially impact our results of operations and financial condition. The determination of the amount of realized capital losses recorded for impairments vary by investment type and is based upon our ongoing evaluation and assessment of known and inherent risks associated with the respective asset class. Such evaluations and assessments are revised as conditions change and new information becomes available. We update our evaluations regularly and reflect changes in other-than-temporary impairments in our results of operations. The assessment of whether other-than-temporary impairments have occurred is based on our case-by-case evaluation of the underlying reasons for the decline in fair value. Our conclusions on such assessments are judgmental and include assumptions and projections of future cash flows and price recovery which may ultimately prove to be incorrect as assumptions, facts and circumstances change. Furthermore, historical trends may not be indicative of future impairments and additional impairments may need to be recorded in the future.

The determination of the fair value of our fixed income and equity securities includes subjective judgments and could materially impact our results of operations and financial condition

In determining fair values, we principally use the market approach which utilizes market transaction data for the same or similar instruments. The degree of judgment involved in determining fair values is inversely related to the availability of market observable information. The fair value of assets may differ from the actual amount received upon the sale of an asset in an orderly transaction between market participants at the measurement date. Moreover, the use of different valuation assumptions may have a material effect on the assets' fair values. The difference between amortized cost and fair value for fixed income securities, net of deferred income taxes and related life and annuity DAC, deferred sales inducement costs and reserves for life-contingent contract benefits, is reflected as a component of accumulated other comprehensive income in

shareholders' equity. Changing market conditions could materially affect the determination of the fair value of securities and, as a result, unrealized net capital gains and losses associated with fixed income securities and realized capital gains and losses associated with equity securities recorded in net income could vary significantly. Changes in market interest rates or performance-based investment returns may lead to a significant decrease in the profitability of our annuity business

Our ability to manage the in force spread-based products, such as fixed annuities, is dependent upon maintaining profitable spreads between investment returns and interest crediting rates. When market interest rates decrease or remain at low levels, proceeds from investments that have matured or have been prepaid or sold may be reinvested at lower yields, reducing investment spread. Lowering interest crediting rates on some products in such an environment can partially offset decreases in investment yield. However, these changes could be limited by regulatory minimum rates or contractual minimum rate guarantees on many contracts and may not match the timing or magnitude of changes in investment yields. Increases in market interest rates can have negative effects, for example by increasing the attractiveness of other investments to our customers, which can lead to increased surrenders at a time when fixed income investment asset values are lower as a result of the increase in interest rates. This could lead to the sale of fixed income securities at a loss. In addition, changes in market interest rates impact the valuation of derivatives embedded in equity-indexed annuity contracts that are not hedged, which could lead to volatility in net income. Additionally, the amount of net investment income from performance-based investments backing the immediate annuity liabilities can vary substantially from quarter to quarter. Significant volatility or market downturns could

adversely impact net investment income, valuation, returns, and collectability of undistributed appreciation. We have certain international limited partnership investments that could be impacted by investment, economic, regulatory and legal risks that could adversely affect our operating results.

Operational Risks

New or changing technologies could cause a disruption in our business model that may materially impact our results of operations and financial condition

Investments are being made in data analytics and telematics to broaden the customer value proposition for the personal automobile transportation system. If we are not effective in anticipating the impact on our business of changing technology, including automotive technology, and the regulatory impacts of such technology, our ability to successfully operate may be impaired. We may not be able to respond effectively to changing technology, which could have a material effect on our results of operations and financial condition.

Telematics on-board diagnostic devices have been

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identified as a potential means for an unauthorized person to interact with a vehicle's computer system resulting in theft or damage, which could affect our ability to use and sell these technologies successfully.

The failure in cyber or other information security controls, as well as the occurrence of events unanticipated in our disaster recovery systems and business continuity planning, could result in a loss or disclosure of confidential information, damage to our reputation, additional costs and impairment of our ability to conduct business effectively We depend heavily on computer systems, mathematical algorithms and data to perform necessary business functions. We collect, use, store or transmit an increasingly large amount of confidential, proprietary, and other information (including personal information of customers, claimants or employees) in connection with the operation of our business. Despite our implementation of a variety of security measures, we are increasingly exposed to the risk that our computer systems could be subject to cyberattacks and unauthorized access, such as physical and electronic break-ins or unauthorized tampering. We have experienced threats to our data and systems, including malware and computer virus attacks, unauthorized access, system failures and disruptions. Events such as these could jeopardize the information processed and stored in, and transmitted through, our computer systems and networks, or otherwise cause interruptions or malfunctions in our operations, which could result in damage to our reputation, financial losses, litigation, increased costs, regulatory penalties and/or customer dissatisfaction or loss. These risks may increase in the future as we continue to expand internet and mobile strategies, develop additional remote connectivity solutions to serve our employees and customers, develop and expand products and services designed to protect our customers' digital footprint, and build and maintain an integrated digital enterprise.

Third parties to whom we outsource certain of our functions are also subject to these risks. While we review and assess our third party providers' cybersecurity controls, as appropriate, and make changes to our business processes to manage these risks, we cannot assure that our attempts to keep such information confidential will always be successful.

Our increased use of third party services (e.g. cloud technology and software as a service) can make it more difficult to identify and respond to cyberattacks in any of the above situations due to the dynamic nature of these technologies. These risks could increase as vendors adopt and use more cloud-based software services rather than software services which can be run within our data centers.

Personal information, as described above, is subject to an increasing number of federal, state, local and international laws and regulations regarding privacy and data security, as well as contractual commitments. The European Commission adopted the General Data Protection Regulation, which greatly increases the jurisdictional reach of its laws and adds a

broad array of requirements for handling personal data, such as the public disclosure of significant data breaches, privacy impact assessments, data portability and the appointment of data protection officers. Further, the New York State Department of Financial Services has issued cybersecurity regulations for financial services institutions, including banking and insurance entities, that impose a variety of detailed security measures on covered entities. The NAIC has also adopted the Insurance Data Security Model Law, which, if adopted as state legislation, would establish standards for data security and for the investigation of and notification to insurance commissioners of cybersecurity events. See the Regulation section, Privacy Regulation and Data Security, for additional information. Any failure or perceived failure by us to comply with such obligations may result in governmental enforcement actions and fines, litigation, or public statements against us by consumer advocacy groups or others, and could cause our employees and customers to lose trust in us, which could have an adverse effect on our reputation and business.

Our cyber and information security program is continually enhanced in order to be resilient against emerging threats and improve our ability to detect and respond to attempts to gain unauthorized access to our data and systems. Cybersecurity system changes we implement that are designed to update and enhance our protective measures to address new threats may increase the risk of a system or process failure or the creation of a gap in our security measures due to the complexity and interconnectedness of our systems and processes. Any such failure or gap could adversely affect our business, reputation, results of operations or financial condition.

From time to time, the Company and the Audit Committee engage independent advisors to assess and consult on cybersecurity matters. We also perform an on-going assessment of the quality of our program and identify

opportunities to strengthen our cybersecurity controls. However, due to the increasing frequency and sophistication of such cyberattacks and changes in technology, there can be no assurance that a cyberattack will not take place with negative consequences, including an adverse effect to our business, results of operations and financial condition. The occurrence of a disaster, such as a natural catastrophe, pandemic, industrial accident, blackout, terrorist attack, war, cyberattack, computer virus, insider threat, unanticipated problems with our disaster recovery systems, or a support failure from external providers, could have an adverse effect on our ability to conduct business and on our results of operations and financial condition, particularly if those events affect our computer-based data processing, transmission, storage, and retrieval systems or destroy data. If a significant number of employees were unavailable in the event of a disaster, our ability to effectively conduct business could be severely compromised. Our systems are also subject to compromise from internal threats. Our policies, procedures and technical safeguards may be insufficient to prevent or detect improper access to

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confidential, personal or proprietary information by employees, vendors and other third parties who may have otherwise legitimate access to our systems.

We also have business process and information technology operations in Canada, India and the United Kingdom that are subject to operating, regulatory and political risks in those countries. Any of these may result in our incurring substantial costs and other negative consequences, including an adverse effect on our business, results of operations and financial condition.

Misconduct or fraudulent acts by employees, agents and third parties may adversely affect our profitability and financial condition

The insurance industry is inherently susceptible to both past and future misconduct or fraudulent activities by its employees, representative agents, vendors, customers and other third parties. These activities could include, but are not limited to, fraud against the company, its employees and its customers through illegal or prohibited activities, unauthorized acts or representations, unauthorized use or disclosure of personal or proprietary information, deception, and misappropriation of funds or other benefits.

Management has implemented a risk management framework and a supporting system of internal controls that seeks to provide oversight and monitoring of key activities, designed control and technology systems to mitigate such exposures, and regularly conducts assessments and measurements of certain, key supporting controls. However, the system of controls may not sufficiently contemplate all potential exposures and the performance of these controls may not be consistently executed in a manner necessary to sufficiently mitigate these risks. As a result, we could be exposed to financial loss, disruption of business, regulatory assessments and reputational harm. These impacts have the potential to have a material adverse effect on our profitability and financial condition.

A large-scale pandemic, the continued threat or occurrence of terrorism or military actions may have an adverse effect on the level of claim losses we incur, the value of our investment portfolio, our competitive position, marketability of product offerings, liquidity and results of operations

A large-scale pandemic, the continued threat or occurrence of terrorism, within the U.S. and abroad, or military and other actions, and heightened security measures in response to these types of threats may cause significant volatility and losses in our investment portfolio from declines in the equity markets and from interest rate changes in the U.S., Europe and elsewhere, and result in loss of life, property damage, disruptions to commerce and reduced economic activity. Some of the assets in our investment portfolio may be adversely affected by declines in the equity markets and reduced economic activity caused by a large-scale pandemic or the continued threat of terrorism. Additionally, a large-scale pandemic or terrorist act could have a material effect on sales, profitability, competitiveness, marketability of product

offerings, liquidity and operating results.

Loss of key vendor relationships or failure of a vendor to protect our data, confidential and proprietary information, or personal information of our customers, claimants or employees could affect our operations

We rely on services and products provided by many vendors in the U.S. and abroad. These include, for example, vendors of computer hardware and software, and vendors and/or outsourcing of services such as claim adjustment services, human resource benefits management services and investment management services. In the event that any vendor suffers a bankruptcy or otherwise becomes unable to continue to provide products or services, or fails to protect our confidential, proprietary, and other information (including personal information of customers, claimants or employees), we may suffer operational impairments and financial losses.

We may be subject to the risks and costs associated with intellectual property infringement, misappropriation and third party claims

We rely on a combination of contractual rights and copyright, trademark, patent and trade secret laws to establish and protect our intellectual property. Although we use a broad range of measures to protect intellectual property rights, third parties may infringe or misappropriate intellectual property. We may have to litigate to enforce and protect intellectual property and to determine its scope, validity or enforceability, which could divert significant resources and prove unsuccessful. An inability to protect intellectual property could have a material effect on our business.

We may be subject to claims by third parties for patent, trademark or copyright infringement or breach of usage rights. Any such claims and any resulting litigation could result in significant expense and liability. If third party providers or we are found to have infringed a third-party intellectual property right, either of us could be enjoined from providing certain products or services or from utilizing and benefiting from certain methods, processes, copyrights, trademarks, trade secrets or licenses. Alternatively, we could be required to enter into costly licensing arrangements with third parties or implement a costly work-around. Any of these scenarios could have a material effect on our business and results of operations.

Regulatory and Legal Risks

A regulatory environment that requires rate increases to be approved and that can dictate underwriting practices and mandate participation in loss sharing arrangements may adversely affect our results of operations and financial condition

From time to time, political events and positions affect the insurance market, including efforts to suppress rates to a level that may not allow us to reach targeted levels of profitability. For example, if our loss ratio compares favorably to that of the industry, state or provincial regulatory authorities may impose rate rollbacks, require us to pay premium refunds to policyholders, or challenge or otherwise delay our

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efforts to raise rates even if the property and casualty industry generally is not experiencing regulatory challenges to rate increases. Such challenges affect approval for rate changes that may be required to achieve targeted levels of profitability and returns on equity. Moreover, our ability to purchase reinsurance required to reduce catastrophe risk in designated areas may be dependent upon the ability to adjust rates for its cost. If we are unsuccessful, our results of operations could be negatively impacted.

In addition, certain states have enacted laws that require an insurer conducting business in that state to participate in assigned risk plans, reinsurance facilities and joint underwriting associations. Certain states also require the insurer to offer coverage to all consumers, often restricting an insurer's ability to charge the price it might otherwise charge. In these markets, we may be compelled to underwrite significant amounts of business at lower-than-desired rates, possibly leading to an unacceptable return on equity. Alternatively, as the facilities recognize a financial deficit, they could have the ability to assess participating insurers, adversely affecting our results of operations and financial condition. Laws and regulations of many states also limit an insurer's ability to withdraw from one or more lines of insurance, except pursuant to a plan that is approved by the state insurance department. Certain states require an insurer to participate in guaranty funds for impaired or insolvent insurance companies. These funds periodically assess losses against all insurance companies doing business in the state. Our results of operations and financial condition could be adversely affected by any of these factors.

Regulatory reforms, and the more stringent application of existing regulations, may make it more expensive for us to conduct our business

The federal government has enacted comprehensive regulatory reforms for financial services entities. As part of a larger effort to strengthen the regulation of the financial services market, certain reforms are applicable to the insurance industry.

The Federal Insurance Office ("FIO") and Financial Stability Oversight Council were established and the federal government may enact reforms that affect the state insurance regulatory framework. We can make no assurances regarding the potential impact of state or federal measures that change the nature or scope of insurance and financial regulation.

Such regulatory reforms, additional legislative or regulatory requirements and any further stringent enforcement of existing regulations, including increased privacy and cybersecurity regulations, may make it more expensive for us to conduct business and limit our ability to grow or to achieve profitability.

Changes in tax laws may affect our operations, decrease sales and profitability of products and adversely affect our financial condition

Under current federal and state income tax law, certain products, primarily life insurance, receive beneficial tax treatment. This favorable treatment may

give some products a competitive advantage over noninsurance products. Congress and various state legislatures occasionally consider legislation that could reduce or eliminate the beneficial policyholder tax treatment currently applicable to life insurance. Congress and state legislatures also consider proposals to reduce the taxation of certain products or investments that may compete with life insurance. Legislation that increases the taxation on insurance products or reduces the taxation on competing products could lessen the advantage or create a disadvantage for some products by making them less competitive. Such proposals, if adopted, could impact the demand for certain of our life insurance products that offer income tax deferrals and may have a material effect on our profitability and financial condition and could result in the surrender of some existing contracts and policies.

We may not be able to mitigate the capital impact associated with statutory reserving and capital requirements, potentially resulting in a need to increase prices, reduce sales of certain products, and/or accept a return on equity below original levels assumed in pricing

Regulatory capital and reserving requirements affect the amount of capital required to be maintained by our subsidiary insurance companies. Changes to capital or reserving requirements or regulatory interpretations may result in additional capital held in our insurance companies. To support statutory reserves for certain life insurance products, we currently utilize reinsurance and captive reserve financing solutions for financing a portion of our statutory reserve requirements deemed to be non-economic. Changes to capital or reserving requirements or an inability to continue

existing financing as a result of market conditions or otherwise could require us to increase prices, reduce our sales of certain products, and/or accept a return on equity below original levels assumed in pricing.

Changes in accounting standards issued by the Financial Accounting Standards Board or other standard-setting bodies may adversely affect our results of operations and financial condition

Our financial statements are subject to the application of generally accepted accounting principles, which are periodically revised, interpreted and/or expanded. Accordingly, we may be required to adopt new guidance or interpretations, which may have a material effect on our results of operations and financial condition that is either unexpected or has a greater impact than expected and could adversely impact financial strength ratings. For a description of changes in accounting standards that are currently pending and, if known, our estimates of their expected impact, see Note 2 of the consolidated financial statements.

Losses from legal and regulatory actions may be material to our results of operations, cash flows and financial condition

We are involved in various legal actions, including class action litigation challenging a range of company

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practices and coverage provided by our insurance products, some of which involve claims for substantial or indeterminate amounts. We are also involved in various regulatory actions and inquiries, including market conduct exams by state insurance regulatory agencies. In the event of an unfavorable outcome in any of these matters, the ultimate liability may be in excess of amounts currently accrued, if any, and may be material to our results of operations, cash flows and financial condition. The aggregate estimate of the range of reasonably possible loss in excess of the amount accrued, if any, disclosed in Note 14 of the consolidated financial statements is not an indication of expected loss, if any.

We are subject to extensive regulation and potential further restrictive regulation may increase operating costs and limit growth

As insurance companies, broker-dealers, investment advisers, investment companies and other types of companies, many of our subsidiaries are subject to extensive laws and regulations that are complex and subject to change. Changes may lead to additional expenses, increased legal exposure, increased required reserves or capital, and limit our ability to grow or to achieve targeted profitability. Moreover, laws and regulations are administered and enforced by a number of governmental authorities, each of which exercises a degree of interpretive latitude, including state insurance regulators; state securities administrators; state attorneys general as well as federal agencies including the SEC, the Financial Industry Regulatory Authority, the Department of Labor, the U.S. Department of Justice and the National Labor Relations Board. Consequently, we are subject to the risk that compliance with any particular regulator's or enforcement authority's interpretation of a legal issue may not result in compliance with another's interpretation of the same issue, particularly when compliance is judged in hindsight.

In addition, there is risk that any particular regulator's or enforcement authority's interpretation of a legal issue may change over time to our detriment. There is also a risk that changes in the overall legal environment may cause us to change our views regarding the actions we need to take from a legal risk management perspective. This would necessitate changes to our practices that may adversely impact our business. Furthermore, in some cases, these laws and regulations are designed to protect or benefit the interests of a specific constituency rather than a range of constituencies. For example, state insurance laws and regulations are generally intended to protect or benefit purchasers or users of insurance products, not holders of securities that we issue. These laws and regulations may limit our ability to grow or to improve the profitability of our business.

Our participation in indemnification programs, including certain state-mandated industry pools and facilities, subjects us to the risk that reimbursement for qualifying claims and claims expenses may not be received, which could have a material effect on our results of operations and financial condition

We have exposure associated with the Michigan Catastrophic Claim Association ("MCCA"), a state-mandated indemnification mechanism for qualified personal injury protection losses that exceed a retention level which is adjusted upward every other MCCA fiscal year based on a formula. We have exposure associated with the New Jersey Property-Liability Insurance Guaranty Association ("PLIGA"), which provides indemnification to insurers for certain qualifying medical benefits portion of personal injury protection coverage paid in excess of certain levels. We have exposure associated with the North Carolina Reinsurance Facility ("NCRF"), which provides automobile liability indemnification protection to insurers providing coverage to drivers that insurers in the private market are not otherwise willing to insure. The MCCA and NCRF are currently operating with a statutory surplus deficit. Our indemnification recoverables on paid and unpaid claims from the MCCA, PLIGA and NCRF was \$5.40 billion, \$461 million and \$86 million, respectively, as of December 31, 2018.

The MCCA is funded by annually assessing participating member companies actively writing motor vehicle coverage in Michigan on a per vehicle basis. The MCCA's calculation of the annual assessment is based upon the total of members' actuarially determined present value of expected payments on lifetime claims by all persons expected to be catastrophically injured in that year and ultimately qualify for MCCA reimbursement, its operating expenses, and adjustments for the amount of excesses or deficiencies in prior assessments. The MCCA indemnifies qualifying claims of all current and former member companies (whether or not actively writing motor vehicle coverage in Michigan) for qualifying claims and claims expenses incurred while the member companies were actively writing the

mandatory personal injury protection coverage in Michigan.

The MCCA annual assessments fund current operations and member company reimbursements. The MCCA is permitted by law to fund on a discounted basis and continues to choose to use this approach, although, the MCCA has an obligation to indemnify its members for 100% of the loss sustained under personal injury protection. There is currently no method by which insurers are able to obtain the benefit of managed care programs to reduce claims costs through the MCCA. Member companies actively writing automobile coverage in Michigan include the MCCA annual assessments in determining the level of premiums to charge insureds in the state.

The MCCA is financially structured to meet its future indemnification obligations as its cash and invested assets at June 30, 2018 were \$20.54 billion or 90% of its discounted loss and loss adjustment expense reserves of \$22.86 billion and it continues to be authorized to annually assess member companies

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for their incurred indemnifiable claims, the MCCA's annual operating expenses, and any amounts necessary to recoup prior year assessment differences. The MCCA's current fiscal year private passenger per vehicle assessment is \$192 comprising \$161 for current fiscal year claims and expenses and \$31 for deficit recoupment. The MCCA has a statutory accounting permitted practice that has been granted by the Michigan Department of Insurance to discount its liabilities for loss and loss adjustment expense. As of June 30, 2018, the date of the most recent statutory financial reports, the permitted practice reduced the MCCA's accumulated deficit of \$50.17 billion by \$47.25 billion to \$2.92 billion. Calculation of the pre-funding discount is dependent on actuarial estimates and investment funding decisions. As of December 31, 2017, our auto market share in Michigan was 8.2%.

On May 17, 2018, member companies of the MCCA were notified of the ratification of amendments to the MCCA's Plan of Operation. The amendments were designed to clarify the MCCA's preapproval requirements for certain actions and activities involving benefits provided to covered claimants, including the preapproval of any agreement that sets attendant care rates or residential care facility rates and the preapproval of all nonemergency medical flights. The amendments also require timely notification to the MCCA by member companies of the filing of a lawsuit by claimants. In addition, the amendments address members' filing inadequate or untimely claim reports, requests for reimbursement payments without required documentation, and the treatment of recoveries obtained from third-parties involving claims for which members have received reimbursement from the MCCA. The amendments became effective on October 1, 2018. At this time, we are unable to determine whether, or to what extent, the amendments, or the exercise of the amendments, will delay or result in denials of the indemnification of members' ultimate loss and therefore whether or to what extent there could be a material effect on our results of operations and financial condition. Other legislative proposals to change the MCCA operation in the future are put forth periodically. Technological changes such as autonomous or partially autonomous vehicles or technologies that facilitate ride sharing could significantly impact the number of vehicles in use or the extent of customer needs for vehicle insurance. Although the timing and extent of the technology changes and their impact on the numbers of motor vehicle insurance policies and the extent of their coverage in Michigan are uncertain, these changes may result in a diminished number of insured vehicles over which MCCA assessments can be recovered. To the extent the MCCA assessment to members results in a premium insufficient to reimburse its ultimate obligation on existing claims to member companies, our ability to obtain the 100% indemnification of ultimate loss could be impaired. This could have a material effect on our results of operations and financial condition.

Impacts from the Covered Agreement may involve changes in state insurance laws that may adversely affect our results of operations and financial condition

Existing laws in 15 states require some form of collateral to be posted for the benefit of the ceding insurer when an assuming reinsurer is not domiciled in the ceding company's state of domicile. In the remaining states, laws governing reinsurance typically require an assuming reinsurer to post an amount of collateral, based on an independently determined financial strength rating and other factors including whether a particular reinsurer has achieved certified status. Under Dodd-Frank, a Covered Agreement may pre-empt state insurance laws that are inconsistent with its terms. The Covered Agreement signed by the U.S. and EU on September 22, 2017, provides states with five years to conform their laws with its terms to avoid preemption. The Covered Agreement between the U.S. and EU will eliminate the requirement for all EU reinsurers that meet certain minimum requirements to post collateral. The elimination of existing collateral requirements could adversely affect our results of operations and financial condition for reinsurance agreements recorded after the effective date of the Covered Agreement if reinsurers fail to pay our ceded reinsurance claims.

Strategic Risks

Our future growth and profitability are dependent in part on our ability to successfully operate in an industry that is highly competitive and that may be impacted by new or changing technologies

Many of our primary competitors have well-established national reputations and market similar products. We have invested in growth strategies by utilizing unique customer value propositions and business models for each of our market facing businesses. If we are unsuccessful in generating new business, retaining a sufficient number of customers, retaining or acquiring key relationships or renewing contracts within our voluntary benefits or service

businesses, our ability to maintain or increase premiums written or the ability to sell our products could be adversely impacted. In addition, if we experience unexpected increases in underlying costs, such as the frequency or severity of claims costs, it could result in decreases in profitability and lead to price increases. This, in turn, could negatively impact our competitive position leading to a decline in new and renewal business.

Further, technological advancements and innovation are occurring in distribution, underwriting and operations at a rapid pace. If we are unable to timely adapt to or bring such advancements and innovations to market, the quality of our products, our relationships with customers and agents, and our business prospects may be materially affected. The additional information that we obtain as a result of such advancements and innovation may require us to modify our assumptions, models, or reserves. Changes in technology related to collection and analysis of data regarding customers could, in these ways or others, expose us to regulatory or legal actions and may have

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a material adverse effect on our business, reputation, results of operations, and financial condition. Many of our competitors are also using analytics to improve pricing accuracy, be more targeted in marketing, strengthen customer relationships and provide more customized services. They may obtain a competitive advantage if they are able to use analytics more effectively than us.

Our ability to adequately and effectively price our products and services is affected by, among other things, the evolving nature of consumer needs and preferences, pricing surcharges and discounts, market dynamics and the broader use of telematics-based rate segmentation and changes in consumer demand due to improvements in telematics technology. Also, our business could be affected by potential technological changes, such as autonomous or partially autonomous vehicles or technologies that facilitate ride, car or home sharing. Such changes could disrupt the demand for products from current customers, create coverage issues or impact the frequency or severity of losses, or reduce the size of the automobile insurance market, causing our auto insurance business to decline. Since auto insurance constitutes a significant portion of our overall business, we may be more sensitive than other insurers and more adversely affected by trends that could decrease auto insurance rates or reduce demand for auto insurance over time. Technological changes may also impact the ways in which we interact and do business with our customers. For example, changing customer preferences may drive a need to redesign our products or distribution model and the way we interact with customers. We may not be able to respond effectively to these changes, which could have a material effect on our results of operations and financial condition.

Because of the competitive nature of the markets in which we operate, there can be no assurance that we will continue to compete effectively within the industry, or that competitive pressures will not have a materially unfavorable effect on our business, results of operations or financial condition. This includes competition for producers such as exclusive and independent agents and their licensed sales professionals. Growth and retention may be materially affected if we are unable to attract and retain effective producers or if those producers are unable to attract and retain their licensed sales professionals or customers. Similarly, growth and retention may be impacted if customer preferences change, including customer demand for direct distribution channels or an increase in point-of-sale distribution channels. Furthermore, certain competitors operate using a different company structure and therefore may have dissimilar profitability and return targets.

Our ability to successfully operate may also be impaired if we are not effective in developing the talent and skills of our human resources, attracting and assimilating new executive talent into our organization, retaining experienced and qualified employees or deploying human resource talent consistently to achieve our business goals. Factors that affect our ability to attract and retain such employees include our

compensation and benefits and our reputation as a successful business with a culture of fairly hiring, training and promoting qualified employees.

Competition from within the insurance industry and from businesses outside the insurance industry, including the technology industry, for qualified employees has often been intense and we have experienced increased competition in hiring and retaining employees. The unexpected loss of key personnel in business units, control functions, information technology, operations or other areas could have a material adverse impact on our business because of the loss of their skills, knowledge of our products and offerings and years of industry experience and, in some cases, the difficulty of promptly finding qualified replacement personnel.

The potential benefits of our sophisticated risk segmentation process may not be fully realized Sophisticated pricing and underwriting methods have allowed us to offer competitive pricing to attract and retain more customers while continuing to operate profitably. However, because many of our competitors seek to adopt underwriting criteria and sophisticated pricing models similar to those we use, our competitive advantage could decline or be lost. The review of such pricing models by regulators and special interest groups may require changes to such models. In addition, competitive pressures could force us to modify these sophisticated pricing models. We cannot be assured that these sophisticated pricing models will accurately reflect the level of losses that we will ultimately incur.

Acquisitions or divestitures of businesses may not produce anticipated benefits resulting in operating difficulties, unforeseen liabilities or asset impairments, which may adversely affect our results of operations and financial condition

The ability to achieve certain anticipated financial benefits from the acquisition of SquareTrade Holding Company, Inc., InfoArmor, Inc. or other businesses depends in part upon our ability to successfully grow the businesses consistent with our anticipated acquisition economics. Financial results could be adversely affected by unanticipated performance issues, unforeseen liabilities, transaction-related charges, diversion of management time and resources to acquisition integration challenges or growth strategies, loss of key employees, amortization of expenses related to intangibles, charges for impairment of long-term assets or goodwill and indemnifications. In addition, acquired businesses may not perform as projected, cost savings anticipated from the acquisition may not materialize, and costs associated with the integration may be greater than anticipated. As a result, if we do not manage these transitions effectively and bring innovations to market with the requisite speed, the quality of our products as well as our relationships with customers and agents may result in the company not achieving returns on its investment at the level projected at acquisition.

We also may divest businesses from time to time. These transactions may result in continued financial

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involvement in the divested businesses, such as through reinsurance, guarantees or other financial arrangements, following the transaction. Nonperformance or decline in the financial strength ratings by those divested businesses could affect our future financial results through an increase in policy lapses, decreased future premiums, additional payment obligations, higher costs or asset write-downs. We reinsure life insurance and payout annuity business from Lincoln Benefit Life Company ("LBL"). Premiums and contract charges assumed from LBL totaled \$690 million in 2018. A decline in LBL's financial strength ratings could adversely affect our results of operations by decreasing future premiums.

Reducing our concentration in spread-based business and exiting certain distribution channels may adversely affect annuity reported results

We have been reducing our concentration in spread-based business since 2008 and discontinued offering fixed annuities effective January 1, 2014. We also exited the independent master brokerage agencies and structured settlement annuity brokers distribution channels in 2013 and sold LBL on April 1, 2014. The reduction in sales of these products has and will continue to reduce investment portfolio levels. It may also affect the settlement of contract benefits, including sales of assets with unrealized capital losses and affect insurance reserves deficiency testing. Item 1B. Unresolved Staff Comments None.

Item 2. Properties

Our home office complex is owned and located in Northbrook, Illinois. As of December 31, 2018, the home office complex consists of several buildings totaling 1.9 million square feet of office space on a 186-acre site.

We also operate from approximately 500 administrative, data processing, claims handling and other support facilities in North America. In addition to our home office facilities, 825 thousand square feet are owned and 6.0 million square feet are leased. Outside North America, we own one and lease three properties in Northern Ireland comprising approximately 220,000 square feet. We also have two leased facilities in India for approximately 340,000 square feet and two leased facilities in London for 3,385 square feet.

The locations where Allstate exclusive agencies operate in the U.S. are normally leased by the agencies.

Item 3. Legal Proceedings

Information required for Item 3 is incorporated by reference to the discussion under the heading "Regulation and compliance" and under the heading "Legal and regulatory proceedings and inquiries" in Note 14 of the consolidated financial statements.

Item 4. Mine Safety Disclosures

Not applicable.

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Part II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

As of January 31, 2019, there were 72,568 holders of record of The Allstate Corporation's common stock. The principal market for the common stock is the New York Stock Exchange, where our common stock trades under the trading symbol "ALL". Our common stock is also listed on the Chicago Stock Exchange.

Common stock performance graph

The following performance graph compares the cumulative total shareholder return on Allstate common stock for a five-year period (December 31, 2013 to December 31, 2018) with the cumulative total return of the S&P Property and Casualty Insurance Index (S&P P/C) and the S&P's 500 stock index.

Value at each year-end of \$100 initial investment made on December 31, 2013

	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018
Allstate	\$ 100.00	\$ 131.23	\$ 118.15	\$ 143.80	\$ 206.52	\$ 166.21
S&P P/C	\$ 100.00	\$ 115.74	\$ 126.77	\$ 146.68	\$ 179.52	\$ 171.10
S&P 500	\$ 100.00	\$ 113.68	\$ 115.24	\$ 129.02	\$ 157.17	\$ 150.27

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Issuer Purchases of Equity Securities

Period	Total number of shares (or units) purchased (1)	Average price paid per share (or unit)	Total number of shares (or units) purchased as part of publicly announced plans or programs (3)	Maximum number (or approximate dollar value) of shares (or units) that may yet be purchased under the plans or programs ⁽⁴⁾
October 1, 2018 - October 31, 2018 Open Market Purchases November 1, 2018	1,155,602	\$96.2500	1,147,998	
November 30, 2018 Open Market Purchases December 1, 2018	1,352,575	\$89.5608	1,351,489	
December 31, 2018 ASR Agreement (2) Open Market Purchases Total		 \$89.1900	10,718,789 — 13,218,276	\$2.07 billion
				\$2.07 billion

In accordance with the terms of its equity compensation plans, Allstate acquired the following shares in connection with the vesting of restricted stock units and performance stock awards and the exercise of stock options held by employees and/or directors. The shares were acquired in satisfaction of withholding taxes due upon exercise or vesting and in payment of the exercise price of the options.

October: 7,604 November: 1,086 December: 218

On December 14, 2018, Allstate entered into an accelerated share repurchase agreement ("ASR Agreement") with Wells Fargo Bank, National Association ("Wells Fargo"), to purchase \$1 billion of our outstanding shares of

- common stock. In exchange for an upfront payment of \$1 billion, Wells Fargo initially delivered 10,718,789 shares to Allstate. The actual number of shares we repurchase under the ASR Agreement, and the average price paid per share, will be determined at the completion of the ASR Agreement based on the volume weighted average price of Allstate's common stock during the period of Wells Fargo's purchases, which will end on or before May 3, 2019.
- (3) From time to time, repurchases under our programs are executed under the terms of a pre-set trading plan meeting the requirements of Rule 10b5-1(c) of the Securities Exchange Act of 1934.
 - On August 1, 2017, we announced the approval of a new common share repurchase program for \$2 billion, which
- (4) was completed on November 13, 2018. On October 31, 2018, we announced the approval of a common share repurchase program for \$3 billion, which is expected to be completed by April 2020.

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Item 6. Selected Financial Data					
5-year summary of selected financial data	2010	2017	2016	2015	2014
(\$ in millions, except per share data) Consolidated Operating Results	2018	2017	2016	2015	2014
Insurance premiums and contract charges	\$36,513	\$34 678	\$33,582	\$32 467	\$31,086
Other revenue	939	883	865	863	\$51,000 859
Net investment income	3,240	3,401	3,042	3,156	3,459
Realized capital gains and losses	-	445		30	694
Total revenues	39,815	39,407	37,399	36,516	36,098
Net income applicable to common shareholders	2,104	3,073	1,761	2,055	2,746
Net income applicable to common shareholders per common share:					
Net income applicable to common shareholders per common share -	6.05	8.49	4.72	5.12	6.37
Basic	0.02	0.17	,2	5.12	0.57
Net income applicable to common shareholders per common share -	5.96	8.36	4.67	5.05	6.27
Diluted					
Cash dividends declared per common share	1.84	1.48	1.32	1.20	1.12
Consolidated Financial Position					
Investments	\$81,260	\$82,803	\$81,799	\$77,758	\$81,113
Total assets	112,249	112,422	108,610	104,656	108,479
Reserves for claims and claims expense, life-contingent contract	58,002	58,308	57,749	57,411	57,832
benefits and contractholder funds	30,002	36,306	31,149	37,411	31,032
Long-term debt	6,451	6,350	6,347	5,124	5,140
Shareholders' equity	21,312	22,551	20,573	20,025	22,304
Shareholders' equity per diluted common share	57.56	57.58	50.77	47.34	48.24

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Item 7.	Management's I	Discussion and	Analysis of	Financial	Condition a	nd Results o	f Operations
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Overview

The following discussion highlights significant factors influencing the consolidated financial position and results of operations of The Allstate Corporation (referred to in this document as "we," "our," "us," the "Company" or "Allstate"). It should be read in conjunction with the 5-year summary of selected financial data, consolidated financial statements and related notes found under Part II. Item 6. and Item 8. contained herein.

The most important factors we monitor to evaluate the financial condition and performance for our reportable segments and the Company include:

Allstate Protection: premium, policies in force ("PIF"), new business sales, policy retention, price changes, claim frequency and severity, catastrophes, loss ratio, expenses, underwriting results, and relative competitive position. Service Businesses: revenues, premium written, PIF, adjusted net income and net income.

Allstate Life: premiums and contract charges, new business sales, PIF, benefit spread, expenses, adjusted net income and net income.

Allstate Benefits: premiums, new business sales, PIF, benefit ratio, expenses, adjusted net income and net income. Allstate Annuities: investment spread, asset-liability matching, contract benefits, expenses, adjusted net income, net income and invested assets.

Investments: exposure to market risk, asset allocation, credit quality/experience, total return, net investment income, eash flows, realized capital gains and losses, unrealized capital gains and losses, stability of long-term returns, and asset and liability duration.

Financial condition: liquidity, parent holding company deployable assets, financial strength ratings, operating leverage, debt levels, book value per share and return on equity.

Measuring segment profit or loss

The measure of segment profit or loss used in evaluating performance is underwriting income for the Allstate Protection and Discontinued Lines and Coverages segments and adjusted net income for the Service Businesses, Allstate Life, Allstate Benefits, Allstate Annuities, and Corporate and Other segments.

Underwriting income is calculated as premiums earned and other revenue, less claims and claims expense ("losses"), amortization of deferred policy acquisition costs ("DAC"), operating costs and expenses and restructuring and related charges, as determined using accounting principles generally accepted in the United States of America ("GAAP"). We use this measure in our evaluation of results of operations to analyze the profitability of the Property-Liability insurance operations separately from investment results. Underwriting income is reconciled to net income applicable to common shareholders in the Property-Liability Operations section of Management's Discussion and Analysis ("MD&A").

Adjusted net income is net income applicable to common shareholders, excluding:

- Realized capital gains and losses, after-tax, except for periodic settlements and accruals on non-hedge derivative instruments, which are reported with realized capital gains and losses but included in adjusted net income
- Valuation changes on embedded derivatives not hedged, after-tax
- Amortization of DAC and deferred sales inducement costs ("DSI"), to the extent they resulted from the recognition of certain realized capital gains and losses or valuation changes on embedded derivatives not hedged, after-tax
- Business combination expenses and the amortization of purchased intangible assets, after-tax
- Gain (loss) on disposition of operations, after-tax
- Adjustments for other significant non-recurring, infrequent or unusual items, when (a) the nature of the charge or gain is such that it is reasonably unlikely to recur within two years, or (b) there has been no similar charge or gain within the prior two years

Adjusted net income is reconciled to net income applicable to common shareholders in the Service Businesses, Allstate Life, Allstate Benefits and Allstate Annuities Segment sections of MD&A.

2018 Form 10-K

2018 Highlights

Better Serve Customers

Allstate Delivered on 2018 Operating Priorities (1)

Net Promoter Score

increased for all major businesses Renewal ratio improved

across
Allstate,
Esurance and
Encompass
brands
Return on
common
shareholders'

Achieve Target Economic Returns on Capital

equity of

10.5% for 2018 Policy growth accelerated in Allstate and Esurance brands

Grow Customer Base

SquareTrade PIF grew 29.9 million, or 77.1%, compared to

2017 Net

investment income of \$3.2 billion in 2018 Total return on \$81

Proactively Manage Investments

on \$81 billion investment portfolio of 0.8% Expanded telematics

offerings, Arity collecting 10 billion miles of data per month

SquareTrade continued its rapid growth, adding a leading U.S. retailer during the year Acquired InfoArmor, a fast growing identity protection service provider

(1) 2019 operating priorities will remain consistent with the 2018 priorities.

Consolidated Net Income (\$ in billions)

Consolidated net income applicable to common shareholders decreased 31.5% in 2018 compared to 2017. The decrease was primarily driven by net realized capital losses compared to net realized capital gains in 2017, a lower tax benefit from the Tax Legislation, lower favorable prior year reserve reestimates and higher distribution expenses from growth, partially offset by higher premiums earned, a lower effective tax rate from the Tax Legislation and lower catastrophe losses. The Property-Liability combined ratio was 93.6 in both 2018 and 2017.

Net realized capital losses on investments in 2018 were primarily due to declines in the valuation of equity investments, which are now recorded in net income due to the adoption of the recognition and measurement accounting standard effective January 1, 2018.

2017 vs. 2016 - Increase was primarily due to higher Allstate Protection premiums earned, a tax benefit from the Tax Legislation, net realized capital gains in 2017 compared to net realized capital losses in 2016, higher net investment income, lower claims and claims expense, partially offset by higher catastrophe losses.

Total

Revenue

(\$ in

billions)

Total revenue increased 1.0% in 2018 compared to 2017, driven by a 5.3% increase in insurance premiums and contract charges, which were partially offset by net realized capital losses in 2018 compared to net realized capital gains in 2017 and lower net investment income. Insurance premiums increased in the following segments: Allstate Protection (Allstate brand and Esurance), Service Businesses (SquareTrade and Allstate Dealer Services), Allstate Benefits and Allstate Life.

2017 vs. 2016 - Increase was primarily due to higher Allstate Protection insurance premiums, net realized capital gains in 2017 compared to net realized capital losses in 2016, higher net investment income and the acquisition of SquareTrade.

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Net

Investment

Income

(\$ in

billions)

Net investment income decreased 4.7% in 2018 compared to 2017, primarily due to strong performance-based investment results in 2017, partially offset by higher market-based portfolio income as interest rates increased during 2018.

2017 vs. 2016 - Increase reflected strong 2017 performance-based results, primarily from limited partnerships, an increase in invested assets and stable market-based yields, partially offset by higher employee-related expenses.

Segment Highlights

Allstate Protection underwriting income totaled \$2.19 billion in 2018, a 3.6% increase from \$2.11 billion in 2017, primarily due to increased premiums earned, lower catastrophe losses and improved auto claim frequency, partially offset by higher claim severity, operating costs and expenses and lower favorable prior year reserve reestimates. Premiums written increased 6.0% to \$33.56 billion in 2018 compared to 2017.

Service Businesses adjusted net income was \$2 million in 2018 compared to an adjusted net loss of \$59 million in 2017. The improvement in 2018 was primarily due to increased revenue at SquareTrade, improved loss experience at SquareTrade and Allstate Dealer Services and lower restructuring charges in 2018 compared to 2017, partially offset by higher loss costs at Allstate Roadside Services.

Total revenues increased 24.5% or \$259 million to \$1.32 billion in 2018 from \$1.06 billion in 2017. The increase was primarily due to SquareTrade's growth through its U.S. retail and international channels and increased premiums earned on Allstate Dealer Services' vehicle service contracts. 2018 revenue also includes \$101 million from SquareTrade due to the adoption of the revenue from contracts with customers accounting standard.

Allstate Life adjusted net income was \$289 million in 2018 compared to \$253 million in 2017. The increase was primarily due to a lower effective tax rate from the Tax Legislation and increased premiums and contract charges, partially offset by higher contract benefits.

Premiums and contract charges totaled \$1.32 billion in 2018, an increase of 2.7% from \$1.28 billion in 2017. Allstate Benefits adjusted net income was \$119 million in 2018 compared to \$95 million in 2017. The increase was primarily due to higher premiums and a lower effective tax rate from the Tax Legislation, partially offset by higher contract benefits and operating costs and expenses.

Premiums and contract charges totaled \$1.14 billion in 2018, an increase of 4.7% from \$1.08 billion in 2017. Allstate Annuities adjusted net income was \$130 million in 2018 compared to \$204 million in 2017. The

decrease was primarily due to lower net investment income, driven by performance-based investment results and decreased average investment balances, partially offset by a lower effective tax rate from the Tax Legislation, decreased interest credited to contractholder funds and lower contract benefits.

Net investment income decreased 16.0% to \$1.10 billion in 2018 from \$1.31 billion in 2017. Financial Highlights

Tax reform On December 22, 2017, the Tax Legislation became effective, permanently reducing the U.S. corporate income tax rate from 35% to 21% beginning January 1, 2018. As a result, the corporate tax rate is not comparable between years. During 2017, we revalued deferred tax assets and liabilities and recorded liabilities related to the transition to the modified territorial system for international taxation, resulting in a \$506 million reduction to income tax expense or a \$1.38 per share benefit to earnings per common share for the year ended December 31, 2017. During 2018, the impact of the Tax Legislation was adjusted from our preliminary estimate due to, among other things, changes in interpretations and assumptions we previously made, guidance that was issued and actions we took as a result of the Tax Legislation. During 2018, we recognized a net tax benefit of \$29 million, as a reduction to income tax expense related to the provisional amounts. The accounting for income tax effects of the Tax Legislation has been

completed. The impact of Tax Legislation is excluded from adjusted net income when evaluating segment performance.

InfoArmor On October 5, 2018, we acquired InfoArmor, Inc. ("InfoArmor"), a leading provider of identity protection in the employee benefits market, for \$525 million in cash. InfoArmor primarily offers identity protection to employees and their family members through voluntary benefit programs at over 1,400 firms, including more than 100 of the Fortune 500 companies. Starting in the fourth quarter of 2018, the Service Businesses segment includes the results of InfoArmor.

PlumChoice On November 30, 2018, we acquired PlumChoice, Inc. ("PlumChoice") for \$30 million in cash

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to provide technical support services to SquareTrade's customers and small businesses.

Investments totaled \$81.26 billion as of December 31, 2018, decreasing from \$82.80 billion as of December 31, 2017. Shareholders' equity As of December 31, 2018, shareholders' equity was \$21.31 billion. This total included \$1.50 billion in deployable assets at the parent holding company level comprising cash and investments that are generally saleable within one quarter.

Book value per diluted common share (ratio of common shareholders' equity to total common shares outstanding and dilutive potential common shares outstanding) was \$57.56 as of December 31, 2018, a decrease from \$57.58 as of December 31, 2017.

Return on average common shareholders' equity For the twelve months ended December 31, 2018, net income applicable to common shareholders' return on the average of beginning and ending period common shareholders' equity of 10.5% decreased by 5.0 points from 15.5% for the twelve months ended December 31, 2017.

Pension settlement loss During 2018 and 2017, the Company's qualified employee pension plan lump sum payments exceeded a threshold of service and interest cost, which resulted in a pension settlement loss of \$172 million and \$122 million, pre-tax, respectively, and was recorded as part of operating costs and expenses in the Corporate and Other segment. The net periodic costs for the pension plans inclusive of pension settlement losses were \$257 million and \$255 million in 2018 and 2017, respectively.

Common share repurchases On October 31, 2018, the Board authorized a new \$3.00 billion common share repurchase program that is expected to be completed by April 2020. As of December 31, 2018, there was \$2.07 billion remaining on the repurchase program.

Adopted Accounting Standards

Recognition and Measurement of Financial Assets and Financial Liabilities ("recognition and measurement accounting standard") Beginning January 1, 2018, equity securities are reported at fair value with changes in fair value recognized in realized capital gains and losses. Limited partnerships previously reported using the cost method are now reported at fair value with changes in fair value recognized in net investment income. See the Investments section of this Item for further details.

Revenue from Contracts with Customers Beginning January 1, 2018, we adopted the revenue from contracts with customers accounting standard, which revises the criteria for revenue recognition and impacted the Service Businesses segment by increasing deferred revenue by approximately \$160 million with a corresponding increase in DAC for protection plans that are sold directly to retailers prior to January 1, 2018. The anticipated impact of these adjustments offset and do not impact net income, but impact premium and DAC comparability trends as they are recognized over the life of the policy.

See Note 2 of the consolidated financial statements for additional details on the adopted accounting standards.

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Consolidated net income			
(\$ in millions)	2018	2017	2016
Revenues			
Property and casualty insurance premiums	\$34,048	\$32,300	\$31,307
Life premiums and contract charges	2,465	2,378	2,275
Other revenue	939	883	865
Net investment income (1)	3,240	3,401	3,042
Realized capital gains and losses:			
Total other-than-temporary impairment ("OTTI") losses	(13)	(146)	(313)
OTTI losses reclassified (from) to other comprehensive income	(1)	(4)	10
Net OTTI losses recognized in earnings	(14)	(150)	(303)
Sales and valuation changes on equity investments and derivatives	(863)	595	213
	,		
Total realized capital gains and losses (1)	,	445	(90)
Total revenues	39,815	39,407	37,399
Costs and expenses			
Property and casualty insurance claims and claims expense	(22.839.)	(21 929)	(22,221)
Life contract benefits		(1,923)	
Interest credited to contractholder funds			(726)
Amortization of deferred policy acquisition costs	. ,	(4,784)	
Operating costs and expenses			(4,939)
Amortization of purchased intangible assets			(32)
Restructuring and related charges	. ,	. ,	(30)
Goodwill impairment	(0 <i>5</i>)	. ,	-
Interest expense	(332)	. ,	(295)
Total costs and expenses		. ,	(34,650)
Total costs and expenses	(37,077)	(33,130)	(31,030)
Gain on disposition of operations	6	20	5
Income tax expense (2)	(492)	(802)	(877)
Net income	2,252	3,189	1,877
Preferred stock dividends	(148)	(116)	(116)
Net income applicable to common shareholders	\$2,104	\$3,073	\$1,761
1100 mediae applicable to common shareholders	$\psi \angle, 10 \top$	$\psi J, U I J$	$\psi_{1,1}$

Due to the adoption of the recognition and measurement accounting standard, limited partnerships previously reported using the cost method are now reported at fair value with changes in fair value recognized in net

Beginning January 1, 2018, the Tax Legislation reduced the U.S. corporate income tax rate from 35% to 21%.

⁽¹⁾ investment income and equity securities are reported at fair value with changes in fair value recognized in valuation changes on equity investments in realized capital gains and losses. See the Investments section of this Item and Note 2 of the consolidated financial statements for further details.

²⁰¹⁸ and 2017 results include a Tax Legislation benefit of \$29 million and \$506 million, respectively. 2017 results also include a tax benefit of \$63 million related to the adoption of the new accounting standard for share-based payments on January 1, 2017.

Property-Liability 2018 Form 10-K

Property-Liability Operations

Overview Our Property-Liability operations consist of two reportable segments: Allstate Protection and Discontinued Lines and Coverages. These segments are consistent with the groupings of financial information that management uses to evaluate performance and to determine the allocation of resources.

We do not allocate Property-Liability investment income, realized capital gains and losses, or assets to the Allstate Protection and Discontinued Lines and Coverages segments. Management reviews assets at the Property-Liability level for decision-making purposes.

The table below includes GAAP operating ratios we use to measure our profitability. We believe that they enhance an investor's understanding of our profitability. They are calculated as follows:

Loss ratio: the ratio of claims and claims expense to premiums earned. Loss ratios include the impact of catastrophe losses.

Expense ratio: the ratio of amortization of DAC, operating costs and expenses and restructuring and related charges, less other revenue to premiums earned.

Combined ratio: the ratio of claims and claims expense, amortization of DAC, operating costs and expenses, and restructuring and related charges, less other revenue to premiums earned. The combined ratio is the sum of the loss ratio and the expense ratio. The difference between 100% and the combined ratio represents underwriting income as a percentage of premiums earned, or underwriting margin.

We have also calculated the following impacts of specific items on the GAAP operating ratios because of the volatility of these items between fiscal periods.

• Effect of catastrophe losses on combined ratio: the ratio of catastrophe losses included in claims and claims expense to premiums earned. This ratio includes prior year reserve reestimates of catastrophe losses.

Effect of prior year reserve reestimates on combined ratio: the ratio of prior year reserve reestimates included in claims and claims expense to premiums earned. This ratio includes prior year reserve reestimates of catastrophe losses.

Effect of amortization of purchased intangible assets on combined ratio: the ratio of amortization of purchased intangible assets to premiums earned. Amortization of purchased intangible assets is reported in operating costs and expenses on the Consolidated Statements of Operations.

Effect of restructuring and related charges on combined ratio: the ratio of restructuring and related charges to premiums earned.

Effect of Discontinued Lines and Coverages on combined ratio: the ratio of claims and claims expense and operating costs and expenses in the Discontinued Lines and Coverages segment to Property-Liability premiums earned. The sum of the effect of Discontinued Lines and Coverages on the combined ratio and the Allstate Protection combined ratio is equal to the Property-Liability combined ratio.

2018 Form 10-K Property-Liability

Revenues	Summarized financial data (\$ in millions, except ratios) Premiums written	2018 \$33,555	2017 \$31,648	2016 \$30,891
Other revenue 738 703 688 Net investment income 1,464 1,478 1,253 Realized capital gains and losses (639) 401 (6) Total revenues 34,513 34,015 32,662 Costs and expenses C 22,495 (21,566) (21,968) Amortization of DAC (4,475) (4,205) (4,053) (4,053) (4,045) (4,052) (4,141) (5) (76 (91) (29) (20)				
Net investment income 1,464 (639) 401 (6) 1,253 (639) 401 (6) Realized capital gains and losses 34,513 34,015 32,662 Costs and expenses Claims and claims expense (22,495) (21,566) (21,968) Chamerization of DAC (4,475) (4,205) (4,053) (4,053) Operating costs and expenses (4,545) (4,262) (4,145) (4,145) Restructuring and related charges (76) (91) (29) (70) Total costs and expenses (581) (1,318) (30,195) (806) Gain on disposition of operations (1) — 14 — — Income tax expense (581) (1,318) (306) (806) Net income applicable to common shareholders \$2,341 \$2,587 \$1,661 Underwriting income \$2,097 \$2,012 \$1,220 Net investment income 1,464 1,478 1,253 Net investment income 1,464 1,478 1,253 Net investment income 1,464 1,478 1,253 Realized capital gains and losses, after-tax (500) 272 — Gain on disposition of operations, after-tax — 9 — Tax Legislation expense (5) (6) — Net income applicable to common shareholders				
Realized capital gains and losses (639 401 66 34,513 34,015 32,662 Costs and expenses 34,513 34,015 32,662 Claims and claims expense (22,495 (21,566 (21,968 0.0000000000000000000000000000000000				
Total revenues 34,513 34,015 32,662 Costs and expenses (22,495) (21,566) (21,968) Amortization of DAC (4,475) (4,205) (4,053) Operating costs and expenses (4,545) (4,262) (4,145) Restructuring and related charges (76) (91) (29) Total costs and expenses (31,591) (30,124) (30,195) Gain on disposition of operations (1) — 14 — Income tax expense (581) (1,318) (806)) Net income applicable to common shareholders \$2,341 \$2,587 \$1,661 Underwriting income \$2,097 \$2,012 \$1,220 Net income applicable to common shareholders \$2,341 \$2,587 \$1,661 Underwriting income \$2,097 \$2,012 \$1,220 Net investment income \$1,464 \$1,478 \$1,253 Income tax expense on operations \$715 \$1,119 \$812 Realized capital gains and losses, after-tax \$50 \$25 \$2,587		-		
Costs and expenses Claims and claims expense Claims and cypense Claims and expenses Claims and expense Claims expense Claims expense Claims and expense Claims e		. ,		
Claims and claims expense (22,495 (21,566 (21,968) Amortization of DAC (4,475 (4,405 (4,053) (4,053) Operating costs and expenses (4,545 (4,262 (4,145) (4,053) Operating costs and expenses (76 0 91 (29 0 0 (29 0 0 0 (20 0 0 0 (20 0 0 0 0 (20 0 0 0 0 0 (20 0 0 0 0 0 0 (20 0 0 0 0 0 0 0 (20 0 0 0 0 0 0 0 0 0	Total revenues	34,513	34,015	32,662
Claims and claims expense (22,495 (21,566 (21,968) Amortization of DAC (4,475 (4,405 (4,053 (4,053 (4,475 (4,205 (4,053 (4,053 (4,475 (4,053 (4,405 (4,475 (4,053 (4,405	Costs and expenses			
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Restructuring and related charges (76) (91) (29) Total costs and expenses (31,591) (30,124) (30,195) Gain on disposition of operations (1) — 14 — Income tax expense (581) (1,318) (806) Net income applicable to common shareholders \$2,341 \$2,587 \$1,661 Underwriting income \$2,097 \$2,012 \$1,220 Net investment income 1,464 1,478 1,253 Income tax expense on operations (715) (1,119) (812) Realized capital gains and losses, after-tax (500) 272 — Gain on disposition of operations, after-tax — 9 — Tax Legislation expense (5) (65) — Net income applicable to common shareholders \$2,341 \$2,587 \$1,661 Catastrophe losses (2) \$2,855 \$3,228 \$2,571 GAAP operating ratios \$2,441 \$2,50 24.5 Claims and claims expense ratio 68.2 68.6 71.5 Expense ratio (3) 25.4 25.0 24.5 Combined ratio 93.6 93.6 96.0 Effect of catastrophe losses on combined ratio (4) (0.8) (1.6) (0.1) Effect of catastrophe losses included in prior year reserve reestimates on combined 1.6 (0.8) (1.6) (0.1)	-	(4,475)	(4,205)	(4,053)
Total costs and expenses (31,591) (30,124) (30,195) Gain on disposition of operations (1) — 14 — Income tax expense (581) (1,318) (806) Net income applicable to common shareholders \$2,341 \$2,587 \$1,661 Underwriting income \$2,097 \$2,012 \$1,220 Net investment income 1,464 1,478 1,253 Income tax expense on operations (715) (1,119) (812) Realized capital gains and losses, after-tax (500) 272 — Gain on disposition of operations, after-tax — 9 — Tax Legislation expense (5) (65) — Net income applicable to common shareholders \$2,341 \$2,587 \$1,661 Catastrophe losses (2) \$2,855 \$3,228 \$2,571 GAAP operating ratios \$2,855 \$3,228 \$2,571 GLaims and claims expense ratio 68.2 68.6 71.5 Expense ratio (3) 25.4 25.0 24.5 Combined ratio 93.6 93.6 96.0 Effect of catastrophe losses on combined ratio (4) (0.8) (1.6) (0.1) Effect of catastrophe losses included in prior year reserve reestimates on combined 1.6 (0.8) (1.6) (0.1)	Operating costs and expenses	(4,545)	(4,262)	(4,145)
Gain on disposition of operations (1) — 14 — Income tax expense (581) (1,318) (806)) Net income applicable to common shareholders \$2,341 \$2,587 \$1,661 Underwriting income \$2,097 \$2,012 \$1,220 Net investment income 1,464 1,478 1,253 Income tax expense on operations (715) (1,119) (812) Realized capital gains and losses, after-tax (500) 272 — Gain on disposition of operations, after-tax — 9 — Tax Legislation expense (5) (65) — Net income applicable to common shareholders \$2,341 \$2,587 \$1,661 Catastrophe losses (2) \$2,855 \$3,228 \$2,571 GAAP operating ratios \$2,855 \$3,228 \$2,571 GCapper ating ratios \$2,54 \$25.0 \$24.5 Claims and claims expense ratio 68.2 68.6 71.5 Expense ratio (3) 25.4 25.0 \$24.5 Combined ratio 93.6 93.6 96.0 Effect of catastrophe losses on combined ratio (4) (0.8) (1.6) (0.1) Effect of grantrophe losses included in prior year reserve reestimates on combined	Restructuring and related charges	(76)	(91)	(29)
Income tax expense (581	Total costs and expenses	(31,591)	(30,124)	(30,195)
Income tax expense (581	Gain on disposition of operations (1)		14	
Net income applicable to common shareholders \$2,341 \$2,587 \$1,661	* *	(581)		(806)
Net investment income 1,464 1,478 1,253 Income tax expense on operations (715) (1,119) (812) Realized capital gains and losses, after-tax (500) 272 — Gain on disposition of operations, after-tax — 9 — Tax Legislation expense (5) (65) — Net income applicable to common shareholders \$2,341 \$2,587 \$1,661 Catastrophe losses (2) \$2,855 \$3,228 \$2,571 GAAP operating ratios Claims and claims expense ratio 68.2 68.6 71.5 Expense ratio (3) 25.4 25.0 24.5 Combined ratio 93.6 93.6 96.0 Effect of catastrophe losses on combined ratio (4) (0.8) (1.6) (0.1) Effect of catastrophe losses included in prior year reserve reestimates on combined (0.8) (1.6) (0.1)	•	. ,		
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Income tax expense on operations Realized capital gains and losses, after-tax Gain on disposition of operations, after-tax Tax Legislation expense Net income applicable to common shareholders Catastrophe losses (2) Catastrophe losses (2) S2,855 \$3,228 \$2,571 GAAP operating ratios Claims and claims expense ratio Expense ratio (3) Combined ratio Effect of catastrophe losses on combined ratio (4) Effect of prior year reserve reestimates on combined (715) (1,119) (812) (500) 272 — 9 — (5) (65)— 82,857 \$1,661 Catastrophe losses (2) \$2,855 \$3,228 \$2,571 GAAP operating ratios Claims and claims expense ratio 68.2 68.6 71.5 Expense ratio (3) 25.4 25.0 24.5 Combined ratio 93.6 93.6 96.0 Effect of catastrophe losses on combined ratio (4) Effect of catastrophe losses included in prior year reserve reestimates on combined	· · · · · · · · · · · · · · · · · · ·			
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Gain on disposition of operations, after-tax Tax Legislation expense Net income applicable to common shareholders Catastrophe losses (2) \$2,855 \$3,228 \$2,571 GAAP operating ratios Claims and claims expense ratio Expense ratio (3) Combined ratio Effect of catastrophe losses on combined ratio (4) Effect of catastrophe losses included in prior year reserve reestimates on combined.				(012)
Tax Legislation expense Net income applicable to common shareholders \$2,341 \$2,587 \$1,661 Catastrophe losses (2) \$2,855 \$3,228 \$2,571 GAAP operating ratios Claims and claims expense ratio Expense ratio (3) Combined ratio Effect of catastrophe losses on combined ratio (4) Effect of catastrophe losses included in prior year reserve reestimates on combined S2,855 \$3,228 \$2,571 Consideration (4) Effect of catastrophe losses included in prior year reserve reestimates on combined S2,855 \$3,228 \$2,571		(300)		
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Catastrophe losses (2) \$2,855 \$3,228 \$2,571 GAAP operating ratios Claims and claims expense ratio Expense ratio (3) \$25.4 \$25.0 \$24.5 Combined ratio \$93.6 \$93.6 \$96.0 Effect of catastrophe losses on combined ratio (4) \$8.7 \$10.3 \$8.4 Effect of catastrophe losses included in prior year reserve reestimates on combined	· · · · · · · · · · · · · · · · · · ·	` /		
GAAP operating ratios Claims and claims expense ratio Expense ratio (3) Combined ratio Effect of catastrophe losses on combined ratio (4) Effect of catastrophe losses included in prior year reserve reestimates on combined G8.2 68.6 71.5 25.4 25.0 24.5 93.6 93.6 96.0 Effect of catastrophe losses on combined ratio (4) Effect of catastrophe losses included in prior year reserve reestimates on combined	The meetic approache to common shareholders	Ψ2,3 11	Ψ2,007	Ψ1,001
Claims and claims expense ratio Expense ratio (3) Combined ratio Effect of catastrophe losses on combined ratio (4) Effect of catastrophe losses included in prior year reserve reestimates on combined 68.2 68.6 71.5 25.4 25.0 24.5 93.6 93.6 96.0 8.7 10.3 8.4 Effect of catastrophe losses included in prior year reserve reestimates on combined	Catastrophe losses (2)	\$2,855	\$3,228	\$2,571
Claims and claims expense ratio Expense ratio (3) Combined ratio Effect of catastrophe losses on combined ratio (4) Effect of catastrophe losses included in prior year reserve reestimates on combined 68.2 68.6 71.5 25.4 25.0 24.5 93.6 93.6 96.0 8.7 10.3 8.4 Effect of catastrophe losses included in prior year reserve reestimates on combined	GAAP operating ratios			
Expense ratio (3) Combined ratio 25.4 25.0 24.5 Combined ratio 93.6 93.6 93.6 96.0 Effect of catastrophe losses on combined ratio 8.7 10.3 8.4 Effect of prior year reserve reestimates on combined ratio (4) Effect of catastrophe losses included in prior year reserve reestimates on combined	•	68.2	68.6	71.5
Combined ratio Effect of catastrophe losses on combined ratio Effect of prior year reserve reestimates on combined ratio (4) Effect of catastrophe losses included in prior year reserve reestimates on combined (0.8) (1.6) (0.1)	-			
Effect of prior year reserve reestimates on combined ratio (4) (0.8) (1.6) (0.1) Effect of catastrophe losses included in prior year reserve reestimates on combined	•	93.6	93.6	96.0
Effect of prior year reserve reestimates on combined ratio (4) (0.8) (1.6) (0.1) Effect of catastrophe losses included in prior year reserve reestimates on combined	Effect of catastrophe losses on combined ratio	8.7	10.3	8.4
Effect of catastrophe losses included in prior year reserve reestimates on combined	•	(0.8)	(1.6)	(0.1)
U 1 — — —	• •			
ratio	ratio	0.1	_	_
Effect of amortization of purchased intangible assets on combined ratio — — 0.1	Effect of amortization of purchased intangible assets on combined ratio	_	_	0.1
Effect of restructuring and related charges on combined ratio 0.2 0.3 0.1		0.2	0.3	0.1
Effect of Discontinued Lines and Coverages on combined ratio 0.2 0.3 0.3	Effect of Discontinued Lines and Coverages on combined ratio	0.2	0.3	0.3

^{(1) 2017} results represented the conclusion of a contractual arrangement related to the sale of Sterling Collision Centers, Inc. in 2014.

(4)

Prior year reserve reestimates included in catastrophe losses totaled \$25 million unfavorable, \$18 million favorable and \$6 million unfavorable in 2018, 2017 and 2016, respectively.

⁽³⁾ Other revenue is deducted from operating costs and expenses in the expense ratio calculation.

Prior year favorable reserve reestimates totaled \$253 million, \$505 million and \$21 million in 2018, 2017 and 2016, respectively.

Property-Liability 2018 Form 10-K

Net investment income decreased 0.9% or \$14 million to \$1.46 billion in 2018 from \$1.48 billion in 2017 after increasing 18.0% in 2017 compared to 2016. The 2018 decrease was primarily due to lower performance-based investment results, primarily from limited partnerships, partially offset by higher market-based portfolio income. The 2017 increase benefited from strong performance-based results, primarily from limited partnerships, an increase in invested assets and stable market-based yields, partially offset by higher employee-related expenses. Limited partnership income includes asset appreciation and sales of underlying investments.

Net investment income

For the years ended					
Decemb	er 31,				
2018	2017	2016			
\$943	\$909	\$870			
121	122	95			
17	12	11			
378	432	269			
40	17	9			
123	100	89			
1,622	1,592	1,343			
(158)	(114)	(90)			
\$1,464	\$1,478	\$1,253			
	Decemb 2018 \$943 121 17 378 40 123 1,622 (158)	December 31, 2018 2017 \$943 \$909 121 122 17 12 378 432 40 17 123 100 1,622 1,592 (158) (114)			

Due to the adoption of the recognition and measurement accounting standard, limited partnerships previously

- (1) reported using the cost method are now reported at fair value with changes in fair value recognized in net investment income.
- Investment expense includes \$45 million, \$22 million and \$19 million of investee level expenses in 2018, 2017 and
- 2016, respectively, and has increased compared to prior year primarily due to growth in real estate investments.

 Investee level expenses include depreciation and asset level operating expenses on directly held real estate and other consolidated investments.
- (3) Investment expense includes \$18 million, \$4 million and zero related to the portion of reinvestment income on securities lending collateral paid to the counterparties in 2018, 2017 and 2016, respectively.

Realized capital gains and losses Net realized capital losses in 2018, primarily related to decreases in the valuation of equity investments and losses on sales of fixed income securities. Realized capital gains and losses in 2017 primarily related to net gains on sales, as well as gains from valuation changes in public securities held in certain limited partnerships, partially offset by impairment and change in intent write-downs, and derivative valuation losses. Components of realized capital gains (losses) and the related tax effect

	For the years ended
	December 31,
(\$ in millions)	2018 2017 2016
Impairment write-downs (1)	\$(5) \$(56) \$(130)
Change in intent write-downs (1)	— (44) (56)
Net OTTI losses recognized in earnings	(5) (100) (186)
Sales (1)	(148) 531 185
Valuation of equity investments (1)(2)	(522) — —
Valuation and settlements of derivative instruments	36 (30)(5)
Realized capital gains and losses, pre-tax	(639) 401 (6)
Income tax benefit (expense)	139 (129) 6
Realized capital gains and losses, after-tax	\$(500) \$272 \$—

Due to the adoption of the recognition and measurement accounting standard, equity securities are reported at fair

(1) value with changes in fair value recognized in valuation of equity investments and are no longer included in impairment write-downs, change in intent write-downs and sales.

2018 results include \$447 million of declines in the valuation of equity investments and \$75 million of declines in (2) value primarily related to certain limited partnerships where the underlying assets are predominately public equity securities.

2018 Form 10-K Allstate Protection

Allstate Protection Segment

Private passenger auto, homeowners, and other personal lines insurance products are offered to consumers through agencies and directly through contact centers and online. Our strategy is to position product offerings and distribution channels to meet customers' evolving needs and help them manage the risks they face. For additional information on our strategy and outlook, see Part I, Item 1. Business - Strategy and Segment Information. Underwriting results

	For the ye	ears ended	December	
	31,			
(\$ in millions)	2018	2017	2016	
Premiums written	\$33,555	\$31,648	\$30,888	
Premiums earned	\$32,950	\$31,433	\$30,727	
Other revenue	738	703	688	
Claims and claims expense	(22,408)	(21,470)	(21,863)	
Amortization of DAC	(4,475)	(4,205)	(4,053)	
Other costs and expenses	(4,542)	(4,259)	(4,143)	
Restructuring and related charges	(76)	(91)	(29)	
Underwriting income	\$2,187	\$2,111	\$1,327	
Catastrophe losses	\$2,855	\$3,228	\$2,571	
Underwriting income (loss) by line of business				
Auto	\$1,681	\$1,298	\$156	
Homeowners	457	658	1,075	
Other personal lines (1)	94	124	160	
Commercial lines	(87)	(19)	(110)	
Other business lines (2)	49	51	53	
Answer Financial	(7)	(1)	(7)	
Underwriting income	\$2,187	\$2,111	\$1,327	

⁽¹⁾ Other personal lines include renters, condominium, landlord and other personal lines products.

Other business lines represent Ivantage, a general agency for Allstate exclusive agencies. Ivantage provides

⁽²⁾ agencies a solution for their customers when coverage through Allstate brand underwritten products is not available.

Allstate Protection 2018 Form 10-K

Changes in underwriting results from prior year by component and by line of business (1)

	For the	years end	ed Dec	ember 31	,					
	Auto		Home	owners	Other	al lines		nercial	Allstate Protection	on ⁽²⁾
(\$ in millions)	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Underwriting income (loss) - prior year	\$1,298	\$156	\$658	\$1,075	\$124	\$160	\$(19)	\$(110)	\$2,111	\$1,327
Changes in underwriting income (loss) from:										
Increase (decrease) premiums earned	1,092	614	207	53	58	50	160	(11)	1,517	706
Increase (decrease) other revenue	30	10	3		4	1	(2)		35	15
(Increase) decrease incurred claims and claims expense ("losses"):										
Incurred losses, excluding										
catastrophe losses and reserve reestimates	(623)	623	(262)	(46)	(71)	(29)	(137)	51	(1,093)	599
Catastrophe losses, excluding reserve reestimates	336	(150)	92	(526)	(13)	(12)	1	7	416	(681)
Catastrophe reserve reestimates	24	7	(72)	18	4	(5)	1	4	(43)	24
Non-catastrophe reserve reestimates	(59)	328	(73)	89	4	(5)	(90)	39	(218)	451
Losses subtotal	(322)	808	(315)	(465)	(76)	(51)	(225)	101	(938)	393
(Increase) decrease expenses	(417)	(290)	(96)		(16)	(36)	(1)	1	(538)	(330)
Underwriting income (loss)	\$1,681	\$1,298	\$457	\$658	\$94	\$124	\$(87)	\$(19)	\$2,187	\$2,111

⁽¹⁾ The 2018 column presents changes in 2018 compared to 2017. The 2017 column presents changes in 2017 compared to 2016.

claim severity, operating costs and expenses and lower favorable prior year reserve reestimates. Underwriting income totaled \$2.11 billion in 2017, a 59.1% increase from \$1.33 billion in 2016, primarily due to increased premiums earned, lower loss costs and higher favorable prior year reserve reestimates, partially offset by higher catastrophe losses.

Premiums written is the amount of premiums charged for policies issued during a fiscal period. Premiums are considered earned and are included in the financial results on a pro-rata basis over the policy period. The portion of premiums written applicable to the unexpired term of the policies is recorded as unearned premiums on our Consolidated Statements of Financial Position.

⁽²⁾ Includes other business lines underwriting income of \$49 million and \$51 million in 2018 and 2017, respectively, and Answer Financial underwriting loss of \$7 million and \$1 million in 2018 and 2017, respectively. Underwriting income totaled \$2.19 billion in 2018, a 3.6% increase from \$2.11 billion in 2017, primarily due to increased premiums earned, lower catastrophe losses and improved auto claim frequency, partially offset by higher

2018 Form 10-K Allstate Protection

Premiums written and earned by line of business

	For the years ended December 31,			
(\$ in millions)	2018	2017	2016	
Premiums written				
Auto	\$23,367	\$22,042	\$21,425	
Homeowners	7,698	7,350	7,240	
Other personal lines	1,831	1,768	1,724	
Subtotal – Personal lines	32,896	31,160	30,389	
Commercial lines	659	488	499	
Total premiums written	\$33,555	\$31,648	\$30,888	
Reconciliation of premiums written to premiums earned:				
Increase in unearned premiums	(544)	(258)	(181)	
Other	(61)	43	20	
Total premiums earned	\$32,950	\$31,433	\$30,727	
Auto	\$22,970	\$21,878	\$21,264	
Homeowners	7,517	7,310	7,257	
Other personal lines	1,808	1,750	1,700	
Subtotal – Personal lines	32,295	30,938	30,221	
Commercial lines	655	495	506	
Total premiums earned	\$32,950	\$31,433	\$30,727	

Auto insurance premiums written totaled \$23.37 billion in 2018, a 6.0% increase from \$22.04 billion in 2017, following a 2.9% increase in 2017 from \$21.43 billion in 2016.

Homeowners insurance premiums written totaled \$7.70 billion in 2018, a 4.7% increase from \$7.35 billion in 2017, following a 1.5% increase from \$7.24 billion in 2016. Excluding the cost of catastrophe reinsurance, which is recorded as a reduction to premiums, premiums written increased 4.3% in 2018 compared to 2017. For a more detailed discussion on reinsurance, see the Claims and Claims Expense Reserves section of this Item and Note 10 of the consolidated financial statements.

Unearned premium balance and the time frame in which we expect to recognize these premiums as earned

(\$ in millions)	as of De	ecember	% earned after					
	2018	2017	Three Six months	Nine months	Twelve months			
Allstate brand:								
Auto	\$5,635	\$5,344	71.1% 96.6 %	99.2 %	100.0%			
Homeowners	3,908	3,745	43.3% 75.4 %	94.1 %	100.0%			
Other personal lines	917	895	43.4% 75.3 %	94.1 %	100.0%			
Commercial lines	250	246	44.0% 75.2 %	93.9 %	100.0%			
Total Allstate brand	10,710	10,230	58.1% 86.7 %	96.8 %	100.0%			
Esurance brand:								
Auto	471	404	74.4% 99.1 %	99.8 %	100.0%			
Homeowners	53	42	43.4% 75.5 %	94.2 %	100.0%			
Other personal lines	2	2	43.5% 75.4 %	94.1 %	100.0%			
Total Esurance brand	526	448	71.1% 96.6 %	99.2 %	100.0%			
Encompass brand:								

Auto	275	275	43.9%	75.7 %	94.2 %	100.0%
Homeowners	212	216	43.8%	75.7 %	94.2 %	100.0%
Other personal lines	42	44	44.1%	75.8 %	94.2 %	100.0%
Total Encompass brand	529	535	43.8%	75.7 %	94.2 %	100.0%
Allstate Protection unearned premiums	\$11,765	\$11.213	58.1%	86.6 %	96.8 %	100.0%

Allstate Protection 2018 Form 10-K

Combined ratios by line of business

For the years ended December 31,

	Loss ratio		catastrophe losses on		Effect of prior year reserve reestimates on combined ratio			Effect of catastrophe losses included in prior year reserve reestimates on combined ratio			
	2018 2017	2016	2018	2017	2016	2018	2017	2016	2018	2017	2016
Auto	67.0 68.9	74.7	1.6	3.3	2.7	(2.0)	(2.2)	(0.7)	(0.2)	(0.1)	
Homeowners	69.5 67.2	61.3	30.0	31.2	24.4	0.2	(1.8)	(0.3)	0.9	(0.1)	0.2
Other personal lines	66.2 64.0	62.9	12.1	11.9	11.3	(0.4)	0.1	(0.5)		0.2	(0.1)
Commercial lines	91.5 75.5	93.9	3.4	4.8	6.9	16.5	3.8	12.2	_	0.2	1.0
Total	68.0 68.3	71.2	8.7	10.3	8.4	(1.0)	(1.9)	(0.4)	0.1	(0.1)	

Catastrophe losses were \$2.86 billion in 2018, compared to \$3.23 billion in 2017 and \$2.57 billion in 2016. We define a "catastrophe" as an event that produces pre-tax losses before reinsurance in excess of \$1 million and involves multiple first party policyholders, or a winter weather event that produces a number of claims in excess of a preset, per-event threshold of average claims in a specific area, occurring within a certain amount of time following the event. Catastrophes are caused by various natural events including high winds, winter storms and freezes, tornadoes, hailstorms, wildfires, tropical storms, tsunamis, hurricanes, earthquakes and volcanoes. We are also exposed to man-made catastrophic events, such as certain types of terrorism or industrial accidents. The nature and level of catastrophes in any period cannot be reliably predicted.

Catastrophe losses in 2018 by the size of event

(\$ in millions)	Number of Events		Claims and claims expense		Combined ratio impact	Average catastrophe loss per event			
Size of catastrophe loss									
Greater than \$250 million	1	0.8 %	\$469	16.4 %	1.4	\$ 469			
\$101 million to \$250 million	5	4.3	769	26.9	2.3	154			
\$50 million to \$100 million	9	7.7	694	24.3	2.1	77			
Less than \$50 million	102	87.2	898	31.5	2.8	9			
Total	117	100.0%	2,830	99.1	8.6	24			
Prior year reserve reestimates			25	0.9	0.1				
Total catastrophe losses			\$ 2,855	100.0%	8.7				
Catastrophe losses by the type of event									

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⁽¹⁾ Other revenue is deducted from operating costs and expenses in the expense ratio calculation. Loss ratios by line of business

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	For the years ended December 31,						
	Nun	nber	Number		Number		
(\$ in millions)	of	2018	of	2017	of	2016	
	ever	nts	events		events		
Hurricanes/Tropical storms	3	\$200	3	\$613	2	\$156	
Tornadoes	3	17	3	100	2	7	
Wind/Hail	99	1,752	93	1,973	72	2,255	
Wildfires	10	745	10	536	8	92	
Other events	2	116	2	24	2	55	
Prior year reserve reestimates		25		(18)		6	
Total catastrophe losses	117	\$2,855	111	\$3,228	86	\$2,571	

2018 Form 10-K Allstate Protection

Catastrophe management

Historical catastrophe experience For the last ten years, the average annual impact of catastrophes on our loss ratio was 8.4 points, but it has varied from 4.5 points to 14.7 points. The average annual impact of catastrophes on the homeowners loss ratio for the last ten years was 32.0 points. Over time, we have limited our aggregate insurance exposure to catastrophe losses in certain regions of the country that are subject to high levels of natural catastrophes, limited by our participation in various state facilities. For further discussion of these facilities, see Note 14 of the consolidated financial statements. However, the impact of these actions may be diminished by the growth in insured values, and the effect of state insurance laws and regulations. In addition, in various states we are required to participate in assigned risk plans, reinsurance facilities and joint underwriting associations that provide insurance coverage to individuals or entities that otherwise are unable to purchase such coverage from private insurers. Because of our participation in these and other state facilities such as wind pools, we may be exposed to losses that surpass the capitalization of these facilities and to assessments from these facilities.

We have continued to take actions to maintain an appropriate level of exposure to catastrophic events while continuing to meet the needs of our customers, including the following:

Continuing to limit or not offer new homeowners, manufactured home and landlord package policy business in certain coastal geographies.

Increased capacity in our brokerage platform for customers not offered an Allstate policy.

In 2016, we began to write a limited number of homeowners policies in select areas of California. We continue to renew current policyholders and allow replacement policies for existing customers who buy a new home, or change their residence to rental property. Additionally, we write homeowners coverage through North Light Specialty Insurance Company ("North Light"), which includes earthquake coverage (other than fire following earthquakes) that is currently ceded via quota share reinsurance.

In certain states, we have been ceding wind exposure related to insured property located in wind pool eligible areas. Starting in the second quarter of 2017, we began writing a limited number of homeowners policies in select areas of Florida and continue to support existing customers who replace their currently-insured home with an acceptable property. Encompass withdrew from property lines in Florida in 2009.

Tropical cyclone deductibles are generally higher than all peril deductibles and are in place for a large portion of coastal insured properties.

Auto physical damage coverage generally includes coverage for flood-related loss. We have additional catastrophe exposure, beyond the property lines, for auto customers who have purchased physical

damage coverage. We manage this additional exposure through inclusion of auto losses in our nationwide reinsurance program, including Florida personal lines automobile business, as of June 1, 2016. New Jersey is excluded from the nationwide reinsurance program, but auto losses are included in our New Jersey reinsurance program.

We offer a homeowners policy available in 42 states and the District of Columbia ("D.C."), Allstate House and Home that provides options of coverage for roof damage, including graduated coverage and pricing based on roof type and age.

Hurricanes We consider the greatest areas of potential catastrophe losses due to hurricanes generally to be major metropolitan centers in counties along the eastern and gulf coasts of the United States. Usually, the average premium on a property policy near these coasts is greater than in other areas. However, average premiums are often not considered commensurate with the inherent risk of loss. In addition and as explained in Note 14 of the consolidated financial statements, in various states Allstate is subject to assessments from assigned risk plans, reinsurance facilities and joint underwriting associations providing insurance for wind related property losses.

We have addressed our risk of hurricane loss by, among other actions, purchasing reinsurance for specific states and on a countrywide basis for our personal lines property insurance in areas most exposed to hurricanes, limiting personal homeowners, landlord package policy and manufactured home new business writings in coastal areas in southern and eastern states, implementing tropical cyclone deductibles where appropriate, and not offering continuing coverage on certain policies in coastal counties in certain states. We continue to seek appropriate returns for the risks we write. This may require further actions, similar to those already taken, in geographies where we are not getting appropriate

returns. However, we may maintain or opportunistically increase our presence in areas where adequate risk adjusted returns can be achieved.

Earthquakes We do not offer earthquake coverage in most states. We retain approximately 23,000 PIF with earthquake coverage, primarily in Kentucky, due to regulatory and other reasons. We purchase reinsurance in Kentucky and enter into arrangements in many states to make earthquake coverage available through our brokerage platform.

We continue to have exposure to earthquake risk on certain policies that do not specifically exclude coverage for earthquake losses, including our auto policies, and to fires following earthquakes. Allstate policyholders in California are offered homeowners coverage through the California Earthquake Authority ("CEA"), a privately-financed, publicly-managed state agency created to provide insurance coverage for earthquake damage. Allstate is subject to assessments from the CEA under certain circumstances as explained in Note 14 of the consolidated financial statements. While North Light writes property policies in California, which can include

Allstate Protection 2018 Form 10-K

earthquake coverage, this coverage is 100% ceded via quota share reinsurance.

Fires Following Earthquakes Under a standard homeowners policy we cover fire losses, including those caused by an earthquake. Actions taken related to our risk of loss from fires following earthquakes include restrictive underwriting guidelines in California for new business writings, purchasing reinsurance for Kentucky personal lines property risks, and purchasing nationwide occurrence reinsurance, excluding Florida and New Jersey.

Wildfires Actions taken related to managing our risk of loss from wildfires include purchasing nationwide occurrence reinsurance, new and renewal inspection programs to identify and remediate wildfire risk as well as leveraging contemporary underwriting tools in select areas. While these programs are designed to mitigate risk, the exposure to wildfires still

exists. We continue to manage our exposure and seek appropriate returns for the risks we write. For example, despite writing a limited number of homeowner risks in select geographies in California over the last three years, our overall homeowner exposures in California have declined approximately 50% since 2007.

To manage the exposure, this may require further actions, similar to those already taken, in geographies where we are not achieving appropriate returns. However, we may maintain or opportunistically increase our presence in areas where adequate risk adjusted returns can be achieved.

Reinsurance A description of our current catastrophe reinsurance program appears in Note 10 of the consolidated financial statements.

Expense ratio increased 0.4 points in 2018 compared to 2017.

Expense ratios by line of business

For the years ended
December 31,
2018 2017 2016
Auto 25.7 25.2 24.6
Homeowners 24.4 23.8 23.9
Other personal lines 28.6 28.9 27.7
Commercial lines 21.8 28.3 27.8
Total expense ratio (1) 25.4 25.0 24.5

Impact of specific costs and expenses on the expense ratio

For the years ended December 31, 2018 2017 2016 13.6 13.4 13.2 Amortization of DAC Advertising expense 2.5 2.2 2.5 Amortization of purchased intangible assets — 0.1 9.1 9.1 Other costs and expenses 8.6 Restructuring and related charges 0.2 0.3 0.1 Total expense ratio (1) 25.4 25.0 24.5

Deferred acquisition costs We establish a DAC asset for costs that are related directly to the successful acquisition of new or renewal insurance policies, principally agency remuneration and premium taxes. DAC is amortized to income over the period in which premiums are earned.

DAC balance as of December 31 by product type

⁽¹⁾ Other revenue is deducted from other costs and expenses in the expense ratio calculation.

⁽¹⁾ Other revenue is deducted from other costs and expenses in the expense ratio calculation.

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(\$ in millions)	2018	2017
Auto	\$845	\$789
Homeowners	599	558
Other personal lines	141	132
Commercial lines	33	31
Total DAC	\$1,618	\$1,510

2018 Form 10-K Allstate Protection

The following table presents premiums written, PIF and underwriting income (loss) by line of business for Allstate brand, Esurance brand, Encompass brand and Allstate Protection as of or for the year ended December 31, 2018. Detailed analysis of underwriting results, premiums written and earned, and the combined ratios, including loss and expense ratios, are discussed in the brand sections below.

Premiums written, policies in force and underwriting income (loss)

(\$ in millions)	Allstate b	rand	Esurance	e brand	Encomp	ass brand	Allstate P	rotection
		Percent		Percent		Percent		Percent
Premiums written	Amount	to total	Amount	to total	Amount	to total	Amount	to total
		brand		brand		brand		
Auto	\$20,991		\$1,839	94.4 %			\$23,367	69.6 %
Homeowners	7,199	23.5	101	5.2	398	39.2	7,698	22.9
Other personal lines	1,742	5.7	8	0.4	81	8.0	1,831	5.5
Commercial lines	659	2.2		_		_	659	2.0
Total	\$30,591	100.0 %	\$1,948	100.0%	\$1,016	100.0 %	\$33,555	100.0 %
Percent to total Allstate Protection		91.2 %		5.8 %		3.0 %		100.0 %
PIF (thousands)								
Auto	20,104	65.2 %	1,488	91.4 %	502	61.3 %	22,094	66.4 %
Homeowners	6,186	20.1	95	5.8	239	29.2	6,520	19.6
Other personal lines	4,295	13.9	46	2.8	78	9.5	4,419	13.3
Commercial lines	231	0.8					231	0.7
Total	30,816	100.0 %	1,629	100.0%	819	100.0 %	33,264	100.0 %
Percent to total Allstate Protection		92.6 %		4.9 %		2.5 %		100.0 %
Underwriting income (loss)								
Auto	\$1,681	76.2 %	\$(11)	44.0 %	\$11	84.6 %	\$1,681	76.9 %
Homeowners	472	21.4	(14)	56.0	(1)	(7.7)	457	20.9
Other personal lines	91	4.1	_	_	3	23.1	94	4.3
Commercial lines	(87)	(3.9)	_	_	_	_	(87)	(4.0)
Other business lines	49	2.2					49	2.2
Answer Financial	_	_				_	(7)	(0.3)
Total	\$2,206	100.0 %	\$(25)	100.0%	\$13	100.0 %	\$2,187	100.0 %

When analyzing premium measures and statistics for all three brands the following calculations are used as described below.

PIF: Policy counts are based on items rather than customers. A multi-car customer would generate multiple item (policy) counts, even if all cars were insured under one policy. Commercial lines PIF for the agreement with a transportation network company reflects corporate contracts as opposed to individual driver counts.

New issued applications: Item counts of automobile or homeowner insurance applications for insurance policies that were issued during the period, regardless of whether the customer was previously insured by another Allstate Protection brand. Allstate brand includes automobiles added by existing customers when they exceed the number allowed (currently 10) on a policy.

Average premium-gross written ("average premium"): Gross premiums written divided by issued item count. Gross premiums written include the impacts from discounts, surcharges and ceded reinsurance premiums and exclude the impacts from mid-term premium adjustments and premium refund accruals. Average premiums represent the

appropriate policy term for each line. Allstate and Esurance brand policy terms are 6 months for auto and 12 months for homeowners. Encompass brand policy terms are generally 12 months for auto and homeowners.

Renewal ratio: Renewal policy item counts issued during the period, based on contract effective dates, divided by the total policy item counts issued 6 months prior for auto (generally 12 months prior for Encompass brand) or 12 months prior for homeowners.

Allstate Protection: Allstate brand 2018 Form 10-K

Allstate brand products are sold primarily through Allstate exclusive agencies and serve customers who prefer local personalized advice and service and are brand-sensitive. In 2018, the Allstate brand represented 91.2% of the Allstate Protection segment's written premium. For additional information on our strategy and outlook, see Part I, Item 1. Business - Strategy and Segment Information.

Underwriting results

	For the years ended December				
	31,				
(\$ in millions)	2018	2017	2016		
Premiums written	\$30,591	\$28,885	\$28,059		
Premiums earned	\$30,058	\$28,631	\$27,865		
Other revenue	582	559	545		
Claims and claims expense	(20,296)	(19,352)	(19,750)		
Amortization of DAC	(4,242)	(3,963)	(3,791)		
Other costs and expenses	(3,828)	(3,591)	(3,385)		
Restructuring and related charges	(68)	(83)	(27)		
Underwriting income	\$2,206	\$2,201	\$1,457		
Catastrophe losses	\$2,701	\$2,985	\$2,424		
Underwriting income (loss) by line of business					
Auto	\$1,681	\$1,331	\$250		
Homeowners	472	725	1,098		
Other personal lines (1)	91	113	166		
Commercial lines	(87)	(19)	(110)		
Other business lines (2)	49	51	53		
Underwriting income	\$2,206	\$2,201	\$1,457		

⁽¹⁾ Other personal lines include renters, condominium, landlord and other personal lines products.

Changes in underwriting results from prior year by component (1)

	For the years		
	ended D	ecember	
	31,		
(\$ in millions)	2018	2017	
Underwriting income - prior year	\$2,201	\$1,457	
Changes in underwriting income (loss) from:			
Increase (decrease) premiums earned	1,427	766	
Increase (decrease) other revenue	23	14	
(Increase) decrease incurred claims and claims expense ("losses"):			
Incurred losses, excluding catastrophe losses and reserve reestimates	(1,002)	506	
Catastrophe losses, excluding reserve reestimates	311	(583)	
Catastrophe reserve reestimates	(27)	22	
Non-catastrophe reserve reestimates	(226)	453	
Losses subtotal	(944)	398	
(Increase) decrease expenses	(501)	(434)	
Underwriting income	\$2,206	\$2,201	

⁽¹⁾ The 2018 column presents changes in 2018 compared to 2017. The 2017 column presents changes in 2017 compared to 2016.

Underwriting income totaled \$2.21 billion in 2018, a 0.2% increase from \$2.20 billion in 2017, primarily due to increased premiums earned, lower catastrophe losses and improved auto claim frequency, partially offset by higher

⁽²⁾ Other business lines represent Ivantage.

claim severity, agency and employee-related compensation costs and advertising costs and lower favorable non-catastrophe prior year reserve reestimates.

Underwriting income totaled \$2.20 billion in 2017, a 51.1% increase from \$1.46 billion in 2016, primarily due to increased premiums earned, lower claim frequency and higher favorable prior year reserve reestimates, partially offset by higher catastrophe losses and agency and employee-related compensation costs.

2018 Form 10-K Allstate Protection: Allstate brand

Premiums written and earned by line of business

For the years ended							
	Decembe	er 3	1,				
(\$ in millions)	2018	20	17	20)16		
Premiums written							
Auto	\$20,991	\$1	9,859	\$	19,209		
Homeowners	7,199	6,8	65	6,	730		
Other personal lines	1,742	1,6	573	1,	621		
Subtotal – Personal lines	29,932	28,	397	27	7,560		
Commercial lines	659	488	8	49	99		
Total	\$30,591	\$2	8,885	\$2	28,059		
Premiums earned							
Auto	\$20,662	\$1	9,676	\$	19,031		
Homeowners	7,025	6,8	11	6,	736		
Other personal lines	1,716	1,6	49	1,	592		
Subtotal – Personal lines	29,403	28,	,136	27	7,359		
Commercial lines	655	49:	5	50)6		
Total	\$30,058	\$2	8,631	\$2	27,865		
Auto premium measures	and statis	stics	3				
			2018		2017		2016
PIF (thousands)			20,10)4	19,580)	19,742
New issued applications	(thousand	ds)	2,933	3	2,520		2,312
Average premium			\$ 570)	\$ 550		\$ 523
Renewal ratio (%)			88.5		87.6		87.8
Approved rate changes (1	1):						
# of locations (2)			47		49		53
Total brand (%) (3)			1.1		4.0	(6)	7.2
Location specific (%) (4)((5)		2.9		6.0	(6)	8.1
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- Rate changes do not include rating plan enhancements, including the introduction of discounts and surcharges that (1) result in no change in the overall rate level in a location. These rate changes do not reflect initial rates filed for insurance subsidiaries initially writing business in a location.
- (2) Allstate brand operates in 50 states, D.C. and 5 Canadian provinces.
- (3) Represents the impact in the states, D.C. and Canadian provinces where rate changes were approved during the period as a percentage of total brand prior year-end premiums written.
- (4) Represents the impact in the states, D.C. and Canadian provinces where rate changes were approved during the period as a percentage of their respective total prior year-end premiums written in those same locations.
- (5) Based on historical premiums written in the locations noted above, rate changes approved for auto totaled \$215 million, \$773 million and \$1.33 billion in 2018, 2017 and 2016, respectively.
- (6) Includes a rate increase in California in first and fourth quarter 2017. Excluding California, Allstate brand auto total brand and location specific rate changes were 2.7% and 4.7% in 2017.

Auto insurance premiums written totaled \$20.99 billion in 2018, a 5.7% increase from \$19.86 billion in 2017. Factors impacting premiums written were:

- 2.7% or 524 thousand increase in PIF as of December 31, 2018 compared to December 31, 2017. The rate of PIF change compared to the prior year improved throughout 2018. Auto PIF increased in 40 states, including 8 of our largest 10 states, as of December 31, 2018 compared to December 31, 2017.
- 0.9 point increase in the renewal ratio in 2018 compared to 2017. 48 states, including 9 of our largest 10 states, experienced increases in the renewal ratio in 2018 compared to 2017.

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16.4% increase in new issued applications in 2018 compared to 2017. 43 states, including 9 of our largest 10 states, experienced increases in new issued applications in 2018 compared to 2017, with 34 states experiencing double digit increases.

3.6% increase in average premium in 2018 compared to 2017, primarily due to rate increases approved in 2017. Auto insurance premiums written totaled \$19.86 billion in 2017, a 3.4% increase from \$19.21 billion in 2016. Factors impacting premiums written were:

0.8% or 162 thousand decrease in PIF as of December 31, 2017 compared to December 31, 2016. The rate of PIF change compared to the prior year improved throughout 2017. Auto PIF increased in 18 states, including 3 of our largest 10 states, as of December 31, 2017 compared to December 31, 2016.

9.0% increase in new issued applications in 2017 compared to 2016. 38 states, including 9 of our largest 10 states, experienced increases in new issued applications in 2017 compared to 2016, with 20 states experiencing double digit increases.

5.2% increase in average premium in 2017 compared to 2016, primarily due to rate increases.

Allstate Protection: Allstate brand 2018 Form 10-K

0.2 point decrease in the renewal ratio in 2017 compared to 2016. 20 states, including 3 of our largest 10 states, experienced increases in the renewal ratio in 2017 compared to 2016.

Homeowners premium measures and statistics

PIF (thousands) New issued applications (thousands) Average premium Renewal ratio (%) Approved rate changes (1):	2018 6,186 826 \$1,231 88.0	2017 6,088 733 \$1,197 87.3	2016 6,120 712 \$1,177 87.8	7
# of locations ⁽²⁾	40	30	40	
Total brand (%)	2.7	1.8	1.1	(4)
Location specific (%) (3)	4.3	3.7	2.2	(4)

- (1) Includes rate changes approved based on our net cost of reinsurance.
- (2) Allstate brand operates in 50 states, D.C., and 5 Canadian provinces.
- (3) Based on historical premiums written in the locations noted above, rate changes approved for homeowners totaled \$189 million, \$122 million and \$75 million in 2018, 2017 and 2016, respectively.
- (4) Includes the impact of a rate decrease in California in first quarter 2016. Excluding California, Allstate brand homeowners total brand and location specific rate changes were 2.1% and 5.1% in 2016, respectively.

Homeowners insurance premiums written totaled \$7.20 billion in 2018, a 4.9% increase from \$6.87 billion in 2017. Factors impacting premiums written were:

- 1.6% or 98 thousand increase in PIF as of December 31, 2018 compared to December 31, 2017. Allstate brand homeowners PIF increased in 32 states, including 5 of our largest 10 states, as of December 31, 2018 compared to December 31, 2017.
- 0.7 point increase in the renewal ratio in 2018 compared to 2017. Of our largest 10 states, 9 experienced an increase in the renewal ratio in 2018 compared to 2017.
- 12.7% increase in new issued applications in 2018 compared to 2017. Of our largest 10 states, 8 experienced increases in new issued applications in 2018 compared to 2017.
- 2.8% increase in average premium in 2018 compared to 2017 primarily due to rate increases and increasing insured home valuations due to inflation.
- \$19 million decrease in the cost of our catastrophe reinsurance program to \$264 million in 2018 from \$283 million in 2017. Catastrophe placement premiums are recorded primarily in the Allstate brand and are a reduction of premium. Premiums written for Allstate's House and Home product, our homeowners offering currently available in 42 states and D.C., totaled \$2.87 billion in 2018 compared to \$2.34 billion in 2017.

Homeowners insurance premiums written totaled \$6.87 billion in 2017, a 2.0% increase from \$6.73 billion in 2016. Factors impacting premiums written were:

0.5% or 32 thousand decrease in PIF as of December 31, 2017 compared to December 31, 2016. Allstate brand homeowners PIF increased in 20 states, including 4 of our largest 10 states, as of

December 31, 2017 compared to December 31, 2016.

- 2.9% increase in new issued applications in 2017 compared to 2016. Of our largest 10 states, 6 experienced increases in new issued applications in 2017 compared to 2016.
- 1.7% increase in average premium in 2017 compared to 2016 primarily due to rate changes and increasing insured home valuations due to inflation.
- 0.5 point decrease in the renewal ratio in 2017 compared to 2016. Of our largest 10 states, 1 experienced an increase in the renewal ratio in 2017 compared to 2016.

\$52 million decrease in the cost of our catastrophe reinsurance program to \$283 million in 2017 from \$335 million in 2016.

Other personal lines premiums written totaled \$1.74 billion in 2018, a 4.1% increase from \$1.67 billion in 2017, following a 3.2% increase in 2017 from \$1.62 billion in 2016. The increase in 2018 was primarily due to increases in personal umbrella and condominium insurance premiums, partially offset by agreements to transfer our auto residual market obligations to third party carriers. The increase in 2017 was primarily due to increases in personal umbrella insurance premiums.

Commercial lines premiums written totaled \$659 million in 2018, a 35.0% increase from \$488 million in 2017, following a 2.2% decrease in 2017 from \$499 million in 2016. The increase in 2018 was due to the agreement with a transportation network company to provide commercial auto insurance coverage in select states, partially offset by profit improvement actions. The decrease in 2017 was driven by decreased new business and lower renewals due to profit improvement actions, partially offset by increased average premiums.

2018 Form 10-K Allstate Protection: Allstate brand

Combined ratios by line of business

For the years ended December 31,

Loss ratio

2018 2017 2016 2018 2017 2016 2018 2017 2016

Auto

66.2 68.1 74.5 25.7 25.1 24.2 91.9 93.2 98.7

Homeowners

69.5 66.2 61.0 23.8 23.2 22.7 93.3 89.4 83.7

Other personal lines

66.5 64.3 62.0 28.2 28.8 27.6 94.7 93.1 89.6

Commercial lines

91.5 75.5 93.9 21.8 28.3 27.8 113.3 103.8 121.7

Total

For the years ended December 31,

Expense ratio (1) Combined ratio

2018 2017 2016

2018 2017 2016

2018 2017 2016

2018 2017 2016

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For the years ended December 31,

	Loss ratio		Effect catas losse	strophe	2		t of pri eserve mates		Effect catast losses in price reserving reserv	rophe inclu or yea e	ded r
	2018 2017	2016	2018	3 2017	2016	2018	2017	2016	2018	2017	2016
Auto	66.2 68.1	74.5	1.6	3.4	2.8	(2.1)	(2.5)	(0.7)	(0.2)	(0.1)	(0.1)
Homeowners	69.5 66.2	61.0	30.5	30.7	24.6	_	(1.9)	(0.3)	0.7	(0.1)	0.1
Other personal lines	66.5 64.3	62.0	12.3	12.2	11.8	0.5	0.7	(0.9)	(0.1)	0.2	(0.2)
Commercial lines	91.5 75.5	93.9	3.4	4.8	6.9	16.5	3.8	12.2	_	0.2	1.0
Total	67.6 67.6	70.9	9.0	10.4	8.7	(1.1)	(2.0)	(0.4)		_	

Frequency and severity statistics, which are influenced by driving patterns, inflation and other factors, are provided to describe the trends in loss costs of the business. Our reserving process incorporates changes in loss patterns, operational statistics and changes in claims reporting processes to determine our best estimate of recorded reserves. We use the following statistics to evaluate losses:

- Paid claim frequency⁽¹⁾ is calculated as annualized notice counts closed with payment in the period divided by the average of PIF with the applicable coverage during the period.
- Gross claim frequency⁽¹⁾ is calculated as annualized notice counts received in the period divided by the average of PIF with the applicable coverage during the period. Gross claim frequency includes all actual notice counts, regardless of their current status (open or closed) or their ultimate disposition (closed with a payment or closed without payment).
- Paid claim severity is calculated by dividing the sum of paid losses and loss expenses by claims closed with a payment during the period.
- Percent change in frequency or severity statistics is calculated as the amount of increase or decrease in the paid or gross claim frequency or severity in the current period compared to the same period in the prior year divided by the prior year paid or gross claim frequency or severity.
- (1) Frequency statistics exclude counts associated with catastrophe events.

Paid claim frequency trends will often differ from gross claim frequency trends due to differences in the timing of when notices are received and when claims are settled. For property damage claims, paid frequency trends reflect smaller differences as timing between opening and settlement is generally less. For bodily injury, gross frequency trends reflect emerging trends since the difference in timing between opening and settlement is much greater and gross frequency does not experience the same volatility in quarterly

⁽¹⁾ Other revenue is deducted from operating costs and expenses in the expense ratio calculation. Loss ratios by line of business

fluctuations seen in paid frequency. In evaluating frequency, we typically rely upon paid frequency trends for physical damage coverages such as property damage and gross frequency for casualty coverages such as bodily injury to provide an indicator of emerging trends in overall claim frequency while also providing insights for our analysis of severity.

We are continuing to implement new technology and process solutions to provide continued loss cost accuracy, efficient processing and enhanced customer experiences that are simple, fast and produce high degrees of satisfaction. We have opened several Digital Operating Centers to handle auto physical damage claims countrywide utilizing our virtual estimation capabilities, which includes estimating damage through photos and video with the use of QuickFoto Claim® and Virtual AssistSM. We are also leveraging virtual capabilities to handle property claims by estimating damage through video with Virtual Assist and aerial imagery using satellites, airplanes and drones. These organizational and process changes impact frequency and severity statistics as changes in claim opening and closing practices and shifts in timing, if any, can impact comparisons to prior periods.

Auto loss ratio decreased 1.9 points in 2018 compared to 2017, primarily due to increased premiums earned, lower catastrophe losses and improved claim frequency, partially offset by higher claim severity and lower favorable non-catastrophe prior year reserve reestimates. Auto loss ratio decreased 6.4 points in 2017 compared to 2016, primarily due to increased premiums earned, lower claim frequency and higher favorable prior year reserve reestimates, partially offset by higher catastrophe losses and higher claim severity.

Property damage paid claim frequency decreased 1.7% in 2018 compared to 2017, following a decrease of 5.2% in 2017 compared to 2016. 36 states experienced

Allstate Protection: Allstate brand 2018 Form 10-K

a year over year decrease in property damage paid claim frequency in 2018 when compared to 2017. Property damage paid claim severities increased 5.9% in 2018 compared to 2017, following an increase of 4.5% in 2017 compared to 2016 due to the impact of higher costs to repair more sophisticated, newer model vehicles, higher third-party subrogation demands and increased costs associated with total losses.

Bodily injury gross claim frequency decreased 2.0% in 2018 compared to 2017, following a decrease of 4.8% in 2017 compared to 2016. Bodily injury severity trends have been impacted by higher medical costs, which after adjusting for company specific claims practices, policy provisions and coverage limits, generally increased consistent with medical care inflation indices.

Homeowners loss ratio increased 3.3 points to 69.5 in 2018 from 66.2 in 2017, primarily due to higher paid claim frequency and severity and lower favorable non-catastrophe prior year reserve reestimates, partially offset by increased premiums earned. Paid claim frequency excluding catastrophe losses increased 4.8% in 2018 compared to 2017 driven by weather related claims. Paid claim severity excluding catastrophe losses increased 5.5% in 2018 compared to 2017. Homeowner paid claim severity can be impacted by both the mix of perils and the magnitude of specific losses paid during the year. Homeowners loss ratio increased 5.2 points to 66.2 in 2017 from 61.0 in 2016, primarily due to higher catastrophe losses, partially

offset by higher favorable prior year reserve reestimates and increased premiums earned. Paid claim frequency excluding catastrophe losses decreased 0.1% in 2017 compared to 2016. Paid claim severity excluding catastrophe losses increased 5.0% in 2017 compared to 2016.

Other personal lines loss ratio increased 2.2 points in 2018 compared to 2017, primarily due to higher loss costs, including catastrophe losses, partially offset by increased premiums earned. Other personal lines loss ratio increased 2.3 points in 2017 compared to 2016, primarily due to unfavorable prior year reserve reestimates, higher catastrophe losses and higher claim severity, partially offset by increased premiums earned.

Commercial lines loss ratio increased 16.0 points in 2018 compared to 2017, primarily due to higher unfavorable non-catastrophe prior year reserve reestimates related to auto bodily injury coverages, partially offset by increased premiums earned. Commercial lines recorded losses related to an agreement with a transportation network company and are based on original pricing expectations given limited loss experience. Commercial lines loss ratio decreased 18.4 points in 2017 compared to 2016, primarily due to lower unfavorable prior year reserve reestimates, lower claim frequency and lower catastrophe losses.

Expense ratios by line of business

For the years ended
December 31,
2018 2017 2016
Auto
25.7 25.1 24.2
Homeowners
23.8 23.2 22.7
Other personal lines
Commercial lines
21.8 28.3 27.8
Total expense ratio (1)
25.1 24.7 23.9

(1) Other revenue is deducted from other costs and expenses in the expense ratio calculation. Impact of specific costs and expenses on the expense ratio

For the years ended December 31, 2018 2017 2016

Amortization of DAC	14.1	13.8	13.6
Advertising expense	2.2	2.0	2.1
Other costs and expenses (1)	8.6	8.6	8.1
Restructuring and related charges	0.2	0.3	0.1
Total expense ratio	25.1	24.7	23.9

⁽¹⁾ Other revenue is deducted from other costs and expenses in the expense ratio calculation.

Expense ratio increased 0.4 points in 2018 compared to 2017, primarily due to higher agency and employee-related compensation costs and higher advertising costs. Amortization of DAC primarily includes agent remuneration and premium taxes. Allstate agency total incurred base commissions, variable compensation and bonuses in 2018 were higher than 2017. Commercial lines expense ratio decreased 6.5 points in 2018 compared to 2017, primarily due to a lower expense ratio on business with a transportation network company.

Expense ratio increased 0.8 points in 2017 compared to 2016, primarily due to higher agency and employee-related compensation costs and restructuring and related costs. Amortization of DAC primarily includes agency remuneration and premium taxes.

2018 Form 10-K Allstate Protection: Esurance brand

Esurance brand products are sold directly to self-directed, brand-sensitive consumers online and through call centers. We manage the direct-to-customer business based on its profitability over the lifetime of the customer relationship. In 2018, the Esurance brand represented 5.8% of the Allstate Protection segment's written premium. For additional information on our strategy and outlook, see Part I, Item 1. Business - Strategy and Segment Information. Underwriting results

	For the years ended				
	December 31,				
(\$ in millions)	2018	2017	2016		
Premiums written	\$1,948	\$1,728	\$1,689		
Premiums earned	\$1,869	\$1,712	\$1,660		
Other revenue	80	67	62		
Claims and claims expense	(1,443)	(1,329)	(1,258)		
Amortization of DAC	(43)	(41)	(41)		
Other costs and expenses	(487)	(462)	(547)		
Restructuring and related charges	(1)	(3)	_		
Underwriting loss	\$(25)	\$(56)	\$(124)		
Catastrophe losses	\$52	\$50	\$36		
Underwriting income (loss) by line of business					
Auto	\$(11)	\$(37)	\$(65)		
Homeowners	(14)	(20)	(59)		
Other personal lines		1			
Underwriting loss	\$(25)	\$(56)	\$(124)		
Changes in underwriting results from prior year	by comp	onent (1)			

Changes in underwriting results from prior year by component (1)

	For the years ended December 31,
(\$ in millions)	2018 2017
Underwriting income (loss) - prior year	\$(56) \$(124)
Changes in underwriting income (loss) from:	
Increase (decrease) premiums earned	157 52
Increase (decrease) other revenue	13 5
(Increase) decrease incurred claims and claims expense ("losses"):	
Incurred losses, excluding catastrophe losses and reserve reestimates	(110) (37)
Catastrophe losses, excluding reserve reestimates	1 (15)
Catastrophe reserve reestimates	(3) 1
Non-catastrophe reserve reestimates	(2) (20)
Losses subtotal	(114) (71)
(Increase) decrease expenses	(25) 82
Underwriting loss	\$(25) \$(56)

⁽¹⁾ The 2018 column presents changes in 2018 compared to 2017. The 2017 column presents changes in 2017 compared to 2016.

Underwriting loss totaled \$25 million in 2018, an improvement from \$56 million in 2017, primarily due to increased premiums earned, partially offset by higher claim severities and additional marketing spend.

Underwriting loss totaled \$56 million in 2017, an improvement from \$124 million in 2016, primarily due to increased premiums earned, decreased homeowners marketing and lower amortization of purchased intangible assets, partially offset by lower favorable prior year reserve reestimates and higher catastrophe losses.

Allstate Protection: Esurance brand 2018 Form 10-K

Premiums written and earned by line of business

	For the years ended December 31,					
(\$ in millions)	2018	,	2016			
Premiums written						
Auto	\$1,839	\$1,641	\$1,625			
Homeowners	101	79	56			
Other personal lines	8	8	8			
Total	\$1,948	\$1,728	\$1,689			
Premiums earned						
Auto	\$1,771	\$1,636	\$1,610			
Homeowners	90	68	42			
Other personal lines	8	8	8			
Total	\$1,869	\$1,712	\$1,660			
Auto premium measures and statistics						

	2018	2017	2016
PIF (thousands)	1,488	1,352	1,391
New issued applications (thousands)	633	484	597
Average premium	\$605	\$574	\$547
Renewal ratio (%)	83.3	81.5	79.4
Approved rate changes (1):			
# of locations ⁽²⁾	30	39	33
Total brand (%) (3)	1.8	4.8	4.2
Location specific (%) (4) (5)	2.7	5.5	6.1

- Rate changes do not include rating plan enhancements, including the introduction of discounts and surcharges that (1) result in no change in the overall rate level in a location. These rate changes do not reflect initial rates filed for insurance subsidiaries initially writing business in a location.
- Esurance brand operates in 43 states. In the second quarter of 2018, Esurance discontinued its operations in Canada.
- (3) Represents the impact in the states where rate changes were approved during the period as a percentage of total brand prior year-end premiums written.
- (4) Represents the impact in the states where rate changes were approved during the period as a percentage of their respective total prior year-end premiums written in those same locations.
- (5) Based on historical premiums written in the locations noted above, rate changes approved for auto totaled \$28 million, \$78 million and \$65 million in 2018, 2017 and 2016, respectively.

Auto insurance premiums written totaled \$1.84 billion in 2018, a 12.1% increase from \$1.64 billion in 2017. Factors impacting premiums written were:

- 40.1% or 136 thousand increase in PIF as of December 31, 2018 compared to December 31, 2017.
- **1**.8 point increase in the renewal ratio in 2018 compared to 2017, primarily due to improved customer experience.
- 30.8% increase in new issued applications in 2018 compared to 2017, primarily due to improvements in the sales process as well as increases in quote volume driven in part by additional marketing spend.
- 5.4% increase in average premium in 2018 compared to 2017, primarily due to rate changes and changes in business mix.

Auto insurance premiums written totaled \$1.64 billion in 2017, a 1.0% increase from \$1.63 billion in 2016. Factors impacting premiums written were:

- 2.8% or 39 thousand decrease in PIF as of December 31, 2017 compared to December 31, 2016.
- 18.9% decrease in new issued applications in 2017 compared to 2016, primarily due to the impact of rate increases, decreased marketing activities and underwriting guideline changes.
- 4.9% increase in average premium in 2017 compared to 2016 primarily due to rate changes and changes in business mix.
- 2.1 point increase in the renewal ratio in 2017 compared to 2016, primarily due to improved customer experience.

2018 Form 10-K Allstate Protection: Esurance brand

Homeowners premium measures and statistics

	2018	2017	2016
PIF (thousands)	95	79	58
New issued applications (thousands)	32	34	37
Average premium	\$982	\$917	\$875
Renewal ratio (%) (1)	85.3	85.5	82.6
Approved rate changes (2):			
# of locations ⁽³⁾	6	3	1
Total brand (%)	2.1	4.5	(0.5)
Location specific (%) (4)	6.9	18.5	(10.0)

Esurance's renewal ratios exclude the impact of risk related cancellations. Customers can enter into a policy without

- (1) a physical inspection. During the underwriting review period, a number of policies may be canceled if upon inspection the condition is unsatisfactory.
- (2) Includes rate changes approved based on our net cost of reinsurance.
- (3) Esurance brand operates in 31 states. In the second quarter of 2018, Esurance discontinued its operations in Canada.
- (4) Based on historical premiums written in the locations noted above, rate changes approved for homeowners totaled \$2 million and \$3 million in 2018 and 2017, respectively. Rate changes were only approved in Texas in 2016. Homeowners insurance premiums written totaled \$101 million in 2018 compared to \$79 million in 2017. Factors impacting premiums written were:
- 46 thousand increase in PIF as of December 31, 2018 compared to December 31, 2017.
- 2 thousand decrease in new issued applications in 2018 compared to 2017.
- 7.1% increase in average premium in 2018 compared to 2017, primarily due to increased premium distribution in higher average premium states and rate increases. As of December 31, 2018, Esurance continues to write homeowners insurance in 31 states with lower hurricane risk, contributing to lower average premium compared to the industry.

Homeowners insurance premiums written totaled \$79 million in 2017 compared to \$56 million in 2016. Factors impacting premiums written were:

- 21 thousand increase in PIF as of December 31, 2017 compared to December 31, 2016.
- 3 thousand decrease in new issued applications in 2017 compared to 2016 due to reduced marketing activities.
 4.8% increase in average premium in 2017 compared to 2016, primarily due to increased premium distribution in higher average premium states and rate changes. As of December 31, 2017, Esurance writes homeowners insurance in 31 states with lower hurricane risk, contributing to lower average premium compared to the industry.

Combined ratios by line of business

For the years ended December 31,
Loss ratio Expense ratio (1) Combined ratio
2018 2017 2016 2018 2017 2016 2018 2017 2016

Auto 77.0 77.5 75.8 23.6 24.8 28.2 100.6 102.3 104.0

Homeowners 83.4 83.8 78.6 32.2 45.6 161.9 115.6 129.4 240.5

Total 77.2 77.6 75.8 24.1 25.7 31.7 101.3 103.3 107.5

(1) Other revenue is deducted from operating costs and expenses in the expense ratio calculation.

Loss ratios by line of business

For the years ended December 31,

Loss ratio

Effect of catastrophe losses

Effect of prior catastrophe catastrophe losses

reestimates

losses included in prior year

reserve reestimates

2018 2017 2016 2018 2017 2016 2018 2017 2016 2018 2017 2016

Auto 77.0 77.5 75.8 1.5 2.1 1.5 0.1 0.1 (1.3) — — — Homeowners 83.4 83.8 78.6 27.8 23.5 28.6 2.2 (3.0) — 2.2 (1.5) — Total 77.2 77.6 75.8 2.8 2.9 2.2 0.2 (0.1) (1.3) 0.1 (0.1) —

Auto loss ratio decreased 0.5 points in 2018 compared to 2017, primarily due to increased premiums earned, and lower catastrophe losses, partially offset by higher claim severity. Auto loss ratio increased 1.7 points in 2017 compared to 2016, primarily due to unfavorable prior year reserve reestimates in 2017 compared to favorable prior year reserve reestimates in 2016 and higher catastrophe losses.

Catastrophe losses were \$52 million in 2018 compared to \$50 million in 2017 and \$36 million in 2016.

Allstate Protection: Esurance brand 2018 Form 10-K

Expense ratios by line of business

For the years ended December

31,

2018 2017 2016

Auto 23.6 24.8 28.2 Homeowners 32.2 45.6 161.9 Total expense ratio (1) 24.1 25.7 31.7

(1) Other revenue is deducted from other costs and expenses in the expense ratio calculation.

Impact of specific costs and expenses on the expense ratio

For the years ended

December 31, 2018 2017 2016

Amortization of DAC

Advertising expense

Amortization of purchased intangible assets

Other costs and expenses (1)

Restructuring and related charges

Total expense ratio

2.3 2.4 2.5

8.7 8.3 11.2

0.1 0.2 1.4

12.9 14.6 16.6

24.1 25.7 31.7

(1) Other revenue is deducted from other costs and expenses in the expense ratio calculation.

Expense ratio decreased 1.6 points in 2018 compared to 2017. Other costs and expenses, including salaries of telephone sales personnel and other underwriting costs related to customer acquisition, were lower in 2018 compared to 2017 due to the continued implementation of process efficiencies. Esurance uses a direct distribution model, therefore its primary acquisition-related costs are advertising as opposed to commissions. Esurance advertising expense ratio increased 0.4 points in 2018 compared to 2017, primarily due to a new marketing campaign launched during the second half of 2018 and increased spending on targeted growth opportunities.

We manage our advertising spend to ensure our acquisition costs meet our targeted returns. Esurance incurs substantially all of its acquisition costs in the year of policy inception. As a result, the Esurance expense ratio will be higher or lower depending on the advertising expenditures incurred. Esurance's annual combined ratio is below 100 after the year of policy inception (in which substantially all acquisition costs are incurred).

Expense ratio decreased 6.0 points in 2017 compared to 2016. Esurance advertising expense ratio decreased 2.9 points in 2017 compared to 2016, primarily due to reductions in homeowners marketing. Other costs and expenses, including salaries of phone sales personnel and other underwriting costs related to customer acquisition, were lower in 2017 compared to 2016 due to the implementation of process efficiencies. Expense ratio includes amortization of purchased intangible assets from the original acquisition in 2011.

Starting in 2017, the portion of the remaining purchased intangible asset related to the Esurance brand name was classified as an infinite-lived intangible and is no longer being amortized, but instead tested for impairment on an annual basis.

2018 Form 10-K Allstate Protection: Encompass brand

Encompass products are sold through independent agencies that serve brand-neutral customers who prefer personal service and support from an independent agent. In 2018, the Encompass brand represented 3.0% of the Allstate Protection segment's written premium. For additional information on our strategy and outlook, see Part I, Item 1. Business - Strategy and Segment Information.

For the years ended

Underwriting results

	December 31,			
(\$ in millions)	2018	2017	2016	
Premiums written	\$1,016	\$1,035	\$1,140	
Premiums earned	\$1,023	\$1,090	\$1,202	
Other revenue	5	6	6	
Claims and claims expense	(669)	(789)	(855)	
Amortization of DAC	(190)	(201)	(221)	
Other costs and expenses	(149)	(134)	(130)	
Restructuring and related charges	(7)	(5)	(1)	
Underwriting income (loss)	\$13	\$(33)	\$1	
Catastrophe losses	\$102	\$193	\$111	
Underwriting income (loss) by line of business	.	.	. (20)	
Auto	\$11	\$4	\$(29)	
Homeowners	,	(47)		
Other personal lines	3	10	(6)	
Underwriting income (loss)	\$13	\$(33)	\$1	
Changes in underwriting results from prior year by component (1)				
			For the	
			years ended	
			December	
			31,	
(\$ in millions)			2018 2017	

	<i>3</i>
	December
	31,
(\$ in millions)	2018 2017
Underwriting income (loss) - prior year	\$(33) \$1
Changes in underwriting income (loss) from:	
Increase (decrease) premiums earned	(67) (112)
Increase (decrease) other revenue	(1) —
(Increase) decrease incurred claims and claims expense ("losses"):	
Incurred losses, excluding catastrophe losses and reserve reestimates	19 130
Catastrophe losses, excluding reserve reestimates	104 (83)
Catastrophes reserve reestimates	(13) 1
Non-catastrophe reserve reestimates	10 18
Losses subtotal	120 66
(Increase) decrease expenses	(6) 12
Underwriting income (loss)	\$13 \$(33)
(1) The 2010 colors and the second of 2017 The	2017 asluma

⁽¹⁾ The 2018 column presents changes in 2018 compared to 2017. The 2017 column presents changes in 2017 compared to 2016.

Underwriting income totaled \$13 million in 2018 compared to an underwriting loss of \$33 million in 2017. The improvement was primarily due to lower catastrophe losses and improved auto claim frequency, partially offset by decreased premiums earned.

Underwriting loss totaled \$33 million in 2017 compared to underwriting income of \$1 million in 2016, primarily due to higher homeowners catastrophe losses, partially offset by improved auto loss costs.

Allstate Protection: Encompass brand 2018 Form 10-K

Premiums written and earned by line of business

	For the years ended					
	Decemb	per 31,				
(\$ in millions)	2018	2017	2016			
Premiums written						
Auto	\$537	\$542	\$591			
Homeowners	398	406	454			
Other personal lines	81	87	95			
Total	\$1,016	\$1,035	\$1,140			
Premiums earned						
Auto	\$537	\$566	\$623			
Homeowners	402	431	479			
Other personal lines	84	93	100			
Total	\$1,023	\$1,090	\$1,202			
Auto premium measu	ares and	statistic	S			
			2018	2017	20	
PIF (thousands)			502	530	62	

	2018	2017	2016
PIF (thousands)	502	530	622
New issued applications (thousands)	76	52	54
Average premium	\$1,118	\$1,079	\$1,008
Renewal ratio (%) (1)	74.9	73.4	75.0
Approved rate changes ⁽²⁾ :			
# of locations ⁽³⁾	17	27	24
Total brand (%) (4)	2.4	6.2	10.5
Location specific (%) (5)(6)	4.8	7.8	14.3
			1

Encompass announced a plan to exit business in Massachusetts in the second quarter of 2017 and previously

- announced a plan to exit business in North Carolina in the first half of 2016, which impacted the renewal ratio. Excluding Massachusetts and North Carolina, the renewal ratios were 76.5 points in 2018 compared to 74.5 points in 2017 and 75.0 points in 2016.
 - Rate changes that are indicated based on loss trend analysis to achieve a targeted return will continue to be
- pursued. Rate changes do not include rating plan enhancements, including the introduction of discounts and surcharges that result in no change in the overall rate level in a location. These rate changes do not reflect initial rates filed for insurance subsidiaries initially writing business in a location.
- (3) Encompass brand operates in 40 states and D.C.
- (4) Represents the impact in the states and D.C. where rate changes were approved during the period as a percentage of total brand prior year-end premiums written.
- (5) Represents the impact in the states and D.C. where rate changes were approved during the period as a percentage of their respective total prior year-end premiums written in those same locations.
- Based on historical premiums written in the locations noted above, rate changes approved for auto totaled \$13 million, \$37 million and \$68 million in 2018, 2017 and 2016, respectively.

Auto insurance premiums written totaled \$537 million in 2018, a 0.9% decrease from \$542 million in 2017. Factors impacting premiums written were:

- 5.3% or 28 thousand decrease in PIF as of December 31, 2018 compared to December 31, 2017.
- 1.5 point increase in the renewal ratio in 2018 compared to 2017, as profit improvement actions have moderated.

Encompass sells a high percentage of package policies that include both auto and homeowners; therefore, declines in one product can contribute to declines in the other.

46.2% or 24 thousand increase in new issued applications in 2018 compared to 2017.

3.6% increase in average premium in 2018 compared to 2017, primarily due to rate changes. Encompass brand policy terms are generally 12 months for auto.

Auto insurance premiums written totaled \$542 million in 2017, an 8.3% decrease from \$591 million in 2016. Factors impacting premiums written were:

- 44.8% or 92 thousand decrease in PIF as of December 31, 2017 compared to December 31, 2016.
- 3.7% decrease in new issued applications in 2017 compared to 2016, primarily due to rate changes.
- **7**.0% increase in average premium in 2017 compared to 2016.
- 1.4 point decrease in the renewal ratio in 2017 compared to 2016, primarily due to profit improvement actions taken, including exiting states with inadequate returns.

2018 Form 10-K Allstate Protection: Encompass brand

Homeowners premium measure and statistics

	2018	2017	2016
PIF (thousands)	239	254	295
New issued applications (thousands)	37	30	34
Average premium	\$1,724	\$1,684	\$1,639
Renewal ratio (%) (1)	80.0	78.5	79.8
Approved rate changes (2):			
# of locations ⁽³⁾	20	21	19
Total brand (%)	4.7	4.8	5.1
Location specific (%) (4)	8.1	8.4	9.0

Encompass announced a plan to exit business in Massachusetts in the second quarter of 2017 and previously

- announced a plan to exit business in North Carolina in the first half of 2016, which has impacted the renewal ratio. Excluding Massachusetts and North Carolina, the renewal ratios were 80.8 points in 2018 compared to 79.0 points in 2017 and 79.9 points in 2016.
- (2) Includes rate changes approved based on our net cost of reinsurance.
- (3) Encompass brand operates in 40 states and D.C.
- (4) Based on historical premiums written in the locations noted above, rate changes approved for homeowner totaled \$20 million, \$23 million and \$27 million in 2018, 2017 and 2016, respectively.

Homeowners insurance premiums written totaled \$398 million in 2018, a 2.0% decrease from \$406 million in 2017. Factors impacting premiums written were the following:

- 5.9% or 15 thousand decrease in PIF as of December 31, 2018 compared to December 31, 2017.
- 1.5 point increase in the renewal ratio in 2018 compared to 2017, as profit improvement actions have moderated.

Encompass sells a high percentage of package policies that include both auto and homeowners; therefore, declines in one product can contribute to declines in the other.

- 23.3% or 7 thousand increase in new issued applications in 2018 compared to 2017.
- 2.4% increase in average premium in 2018 compared to 2017, primarily due to rate changes.

Homeowners insurance premiums written totaled \$406 million in 2017, a 10.6% decrease from \$454 million in 2016. Factors impacting premiums written were the following:

- 43.9% or 41 thousand decrease in PIF as of December 31, 2017 compared to December 31, 2016.
- 41.8% decrease in new issued applications in 2017 compared to 2016.
- 2.7% increase in average premium in 2017 compared to 2016, primarily due to rate changes.
- 1.3 point decrease in the renewal ratio in 2017 compared to 2016, primarily due to profit improvement actions taken to exit states with inadequate returns.

Combined ratios by line of business

For the years ended December 31,

Loss ratio

2018 2017 2016 2018 2017 2016 2018 2017 2016

Auto

65.2 68.6 76.1 32.8 30.7 28.6 98.0 99.3 104.7

Homeowners

66.9 80.3 63.5 33.3 30.6 29.0 100.2 110.9 92.5

Other personal lines

59.5 59.1 77.0 36.9 30.1 29.0 96.4 89.2 106.0

Total

For the years ended December 31,

Expense ratio (1) Combined ratio

2018 2017 2016

2018 2017 2016

2018 2017 2016

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(1) Other revenue is deducted from operating costs and expenses in the expense ratio calculation.

Loss ratios by line of business

For the years ended December 31,

Loss ratio Effect of Effect of prior year Effect of catastrophe reserve reestimates catastrophe

			losse	es						s inclu or yea	
									reserv	-	
										mates	
	2018 2017	2016	2018	2017	2016	2018	2017	2016	2018	2017	2016
Auto	65.2 68.6	76.1	1.1	2.1	1.6	(1.8)	(1.1)		(0.2)	(0.2)	(0.4)
Homeowners	66.9 80.3	63.5	22.1	40.1	20.3	3.2	0.5	_	3.0	_	0.5
Other personal lines	59.5 59.1	77.0	8.3	8.6	4.0	(16.7)	(10.8)	5.0	1.2	_	_
Total	65.4 72.4	71.1	10.0	17.7	9.2	(1.1)	(1.3)	0.4	1.2	(0.1)	_
Auto loss ratio decre	ased 3.4 noi	ints in	2018	comp	ared to	2017	primar	ilv due	to lov	ver cla	nim frequency 1

Auto loss ratio decreased 3.4 points in 2018 compared to 2017, primarily due to lower claim frequency, lower catastrophe losses, higher favorable

non-catastrophe prior year reserve reestimates and a slower decline in premiums earned. Auto loss ratio decreased 7.5 points in 2017 compared to 2016,

Allstate Protection: Encompass brand 2018 Form 10-K

primarily due to lower frequency and severity, and favorable prior year reserve reestimates, partially offset by higher catastrophe losses.

Homeowners loss ratio decreased 13.4 points in 2018 compared to 2017, primarily due to lower catastrophe losses, partially offset by decreased

premiums earned. Homeowners loss ratio increased 16.8 points in 2017 compared to 2016, primarily due to higher catastrophe losses.

Expense ratios by line of business

For the years ended
December 31,
2018 2017 2016
Auto 32.8 30.7 28.6
Homeowners 33.3 30.6 29.0
Other personal lines 36.9 30.1 29.0
Total expense ratio (1) 33.3 30.6 28.8

Impact of specific costs and expenses on the expense ratio

For the years ended

December 31,

2018 2017 2016

Amortization of DAC

Advertising expense

Other costs and expenses (1)

Restructuring and related charges

Total expense ratio

For the years

ended

December 31,

2018 2017 2016

18.5 18.3 18.4

13.9 11.6 10.1

Restructuring and related charges

33.3 30.6 28.8

Expense ratio increased 2.7 points in 2018 compared to 2017, primarily due to decreased premiums earned, increased investment in technology and higher employee-related compensation costs. The Encompass brand DAC amortization rate is higher on average than Allstate brand due to higher commission rates paid to independent agencies.

Expense ratio increased 1.8 points in 2017 compared to 2016, primarily due to higher employee-related and technology costs, and restructuring and related charges.

⁽¹⁾ Other revenue is deducted from other costs and expenses in the expense ratio calculation.

⁽¹⁾ Other revenue is deducted from other costs and expenses in the expense ratio calculation.

2018 Form 10-K Discontinued Lines and Coverages

Discontinued Lines and Coverages Segment

The Discontinued Lines and Coverages segment includes results from property and casualty insurance coverage that primarily relates to policies written during the 1960s through the mid-1980s. Our exposure to asbestos, environmental and other discontinued lines claims arises principally from direct excess commercial insurance, assumed reinsurance coverage, direct primary commercial insurance and other businesses in run-off. For additional information on our strategy and outlook, see Part I, Item 1. Business - Strategy and Segment Information.

Underwriting Results

Chaci withing Results	
	For the years ended
	December 31,
(\$ in millions)	2018 2017 2016
Premiums written (1)	\$— \$— \$3
Premiums earned	\$— \$— \$—
Claims and claims expense	(87) (96) (105)
Operating costs and expenses	(3) (3) (2)
Underwriting loss	\$(90) \$(99) \$(107)

⁽¹⁾ Primarily represents retrospective reinsurance premium recognized when billed.

Underwriting losses of \$90 million in 2018 primarily related to our annual reserve review using established industry and actuarial best practices. The annual review resulted in unfavorable reestimates of \$76 million, including \$44 million for asbestos exposures, primarily related to new reported information, changes in our projections of reported claims and settlement agreements, including bankruptcy proceedings; \$20 million for environmental exposures and \$13 million for other exposures, partially offset by a \$1 million decrease in the allowance for uncollectible reinsurance.

Underwriting losses of \$99 million in 2017 primarily related to our annual reserve review, resulting in unfavorable reestimates of \$85 million, including \$61 million for asbestos exposures, \$10 million for

environmental exposures and \$27 million for other exposures, partially offset by a \$13 million decrease in the allowance for future uncollectible reinsurance.

Underwriting losses of \$107 million in 2016 primarily related to our annual reserve review, resulting in unfavorable reestimates of \$96 million, including a \$67 million unfavorable reestimate of asbestos exposures, a \$23 million unfavorable reestimate of environmental exposures and a \$6 million increase in the allowance for future uncollectible reinsurance with other exposures essentially unchanged.

The cost of administering claims settlements totaled \$11 million, \$11 million and \$10 million for 2018, 2017 and 2016, respectively.

Reserves for asbestos, environmental and other discontinued lines claims before and after the effects of reinsurance

(\$ in millions)	December 31, 2018	December 31 2017	,
Asbestos claims			
Gross reserves	\$ 1,266	\$ 1,296	
Reinsurance	(400)	(412)	
Net reserves	866	884	
Environmental claims			
Gross reserves	209	199	
Reinsurance	(39)	(33)	
Net reserves	170	166	
Other discontinued lines			
Gross reserves	389	398	

Reinsurance	(34) (41)
Net reserves	355	357	
Total			
Gross reserves	1,864	1,893	
Reinsurance	(473) (486)
Net reserves	\$ 1,391	\$ 1,407	

Discontinued Lines and Coverages 2018 Form 10-K

Reserves by type of exposure before and after the effects of reinsurance

(\$ in millions)	December 31 2018	December 31, 2017
Direct excess commercial insurance		
Gross reserves (1)	\$ 973	\$ 997
Reinsurance (2)	(355)	(378)
Net reserves	618	619
Assumed reinsurance coverage		
Gross reserves (3)	625	622
Reinsurance (4)	(53)	(38)
Net reserves	572	584
Direct primary commercial insurance		
Gross reserves (5)	171	177
Reinsurance (6)	(48)	(48)
Net reserves	123	129
Other run-off business		
Gross reserves	19	24
Reinsurance	(16)	(21)
Net reserves	3	3
Unallocated loss adjustment expenses		
Gross reserves	76	73
Reinsurance	(1)	(1)
Net reserves	75	72
Total		
Gross reserves	1,864	1,893
Reinsurance	(473)	(486)
Net reserves	\$ 1,391	\$ 1,407

- (1) Gross reserves as of December 31, 2018 comprised 67% case reserves and 33% incurred but not reported ("IBNR") reserves. Approximately 75% of the total gross case reserves are subject to settlement agreements. In 2018, total gross payments from case reserves were \$105 million with approximately 88% attributable to settlements. Reserves as of December 31, 2017, comprised 65% case reserves and 35% IBNR reserves.
- ⁽²⁾ Ceded reserves as of December 31, 2018 comprised 78% case reserves and 22% IBNR reserves. Approximately 82% of the total ceded case reserves are subject to settlement agreements. In 2018, reinsurance billings of ceded case reserves were \$55 million with approximately 84% attributable to settlements. Reserves as of December 31, 2017, comprised 76% case reserves and 24% IBNR reserves.
- (3) Gross reserves as of December 31, 2018 comprised 34% case reserves and 66% IBNR reserves. In 2018, total gross payments from case reserves were \$39 million. Reserves as of December 31, 2017, comprised 31% case reserves and 69% IBNR reserves.
- ⁽⁴⁾ Ceded reserves as of December 31, 2018 comprised 37% case reserves and 63% IBNR reserves. In 2018, reinsurance billings of ceded case reserves were \$5 million. Reserves as of December 31, 2017, comprised 36% case reserves and 64% IBNR reserves.
- ⁽⁵⁾ Gross reserves as of December 31, 2018 comprised 58% case reserves and 42% IBNR reserves. In 2018, total gross payments from case reserves were \$8 million. Reserves as of December 31, 2017, comprised 54% case reserves and 46% IBNR reserves.
- ⁽⁶⁾ Ceded reserves as of December 31, 2018 comprised 78% case reserves and 22% IBNR reserves. In 2018, reinsurance billings of ceded case reserves were \$1 million. Reserves as of December 31, 2017, comprised 76% case reserves and 24% IBNR reserves.

Total net reserves were \$1.39 billion, including \$693 million or 50% of estimated IBNR reserves as of December 31, 2018 compared to total net reserves of \$1.41 billion, including \$733 million or 52% of estimated IBNR reserves as of December 31, 2017.

Total gross payments were \$156 million and \$192 million for 2018 and 2017, respectively, primarily related to payments on settlement agreements reached with several insureds on large claims, mainly asbestos related losses, where the scope of coverages has been agreed upon.

The claims associated with these settlement agreements are expected to be substantially paid out over the next several years as qualified claims are submitted by these insureds. Reinsurance collections were \$62 million and \$67 million for 2018 and 2017, respectively.

See the Claims and Claims Expense Reserves section of this Item for a more detailed discussion.

2018 Form 10-K Service Businesses

Service Businesses Segment

Service Businesses comprise SquareTrade, Arity, InfoArmor, Allstate Roadside Services and Allstate Dealer Services. In 2018, Service Businesses represented 3.3% of total revenue, 65.1% of total PIF and less than 1.0% of total adjusted net income. We offer consumer product protection plans, device and mobile data collection services and analytic solutions, identity protection, roadside assistance, and finance and insurance products (including vehicle service contracts, guaranteed asset protection waivers, road hazard tire and wheel and paintless dent repair protection). Starting in the fourth quarter of 2018, the Service Businesses segment includes the results of InfoArmor, a leading provider of identity protection to more than 1 million employees and their family members at over 1,400 firms, which was acquired on October 5, 2018. For additional information on our strategy and outlook, see Part I, Item 1. Business - Strategy and Segment Information.

Summarized financial information

	For the y	vears endo	ed
	2018	2017	2016
	\$1,431	\$1,094	\$709
	, ,, ,, ,	+ -,	7.02
Revenues			
Premiums	\$1,098	\$867	\$580
Intersegment insurance premiums and service fees (1)	122	110	105
Other revenue	82	66	64
Net investment income	27	16	13
Realized capital gains and losses	(11)		
Total revenues	1,318	1,059	762
Costs and expenses			
•	(351)		(258)
Amortization of DAC	(463)	(296)	(214)
Operating costs and expenses	(511)	(467)	(287)
	(94)	(92)	
Restructuring and related charges (2)	(4)	(13)	
Total costs and expenses	(1,423)	(1,237)	(759)
	20	193	_
Net (loss) income applicable to common shareholders	\$(85)	\$15	\$3
	Φ.2	Φ.(50)	Φ.2
3	\$2	, ,	\$3
	` /		
1			
C , 1 ,	. ,	134	_
Net (loss) income applicable to common shareholders	\$(85)	\$15	\$3
C T 1 (3)	Φ.2.2	Φ (22	ф
•	\$23		\$—
		(15)	11
InfoArmor (3)	1	<u> </u>	
			(12)
Allstate Dealer Services	15	,	4
Adjusted net income (loss)	\$2	\$(59)	\$3
SquareTrade (3)	68,588	38,719	

InfoArmor (3)	1,040		
Allstate Roadside Services	663	699	768
Allstate Dealer Services	3,896	4,088	4,142
Policies in force as of December 31 (in thousands)	74.187	43.506	4.910

- (1) Primarily related to Arity and Allstate Roadside Services and are eliminated in our consolidated financial statements.
- ⁽²⁾ 2018 related to organizational changes at Allstate Roadside Services and 2017 related to a one-time contract termination of a SquareTrade European vendor.
- (3) SquareTrade was acquired on January 3, 2017 and InfoArmor was acquired on October 5, 2018.
- 66 www.allstate.com

Service Businesses 2018 Form 10-K

Net loss applicable to common shareholders was \$85 million in 2018 compared to net income applicable to common shareholders of \$15 million and \$3 million in 2017 and 2016, respectively. 2018 and 2017 results include a tax expense of \$4 million and a tax benefit of \$134 million, respectively, related to the Tax Legislation.

Adjusted net income was \$2 million in 2018 compared to an adjusted net loss of \$59 million in 2017 and an adjusted net income of \$3 million in 2016. The improvement in 2018 was primarily due to increased revenue at SquareTrade, improved loss experience at SquareTrade and Allstate Dealer Services and lower restructuring charges in 2018 compared to 2017, partially offset by higher loss costs at Allstate Roadside Services. The loss in 2017 compared to income in 2016 was primarily due to investments in Arity's research and development, strategic investments in SquareTrade and Allstate Roadside Services, a SquareTrade restructuring charge and Hurricane Harvey's impacts on Allstate Dealer Services.

Total revenues increased 24.5% or \$259 million to \$1.32 billion in 2018 from \$1.06 billion in 2017. The increase was primarily due to SquareTrade's growth through its U.S. retail and international channels and increased premiums earned on Allstate Dealer Services' vehicle service contracts. 2018 revenue also includes \$101 million for SquareTrade protection plans sold directly to retailers prior to January 1, 2018 for which SquareTrade is deemed to be the principal. This increase in revenue is due to the adoption of the revenue from contracts with customers accounting standard and is offset by corresponding increases in amortization of DAC.

Premiums written increased 30.8% or \$337 million to \$1.43 billion in 2018 from \$1.09 billion in 2017, primarily due to continued growth at SquareTrade, including the addition of a leading U.S. retailer in third quarter 2018. Premiums written increased 54.3% or \$385 million to \$1.09 billion in 2017 from \$709 million in 2016, primarily due to the acquisition of SquareTrade and growth through its U.S. retail channel, partially offset by decreases in premiums written at Allstate Roadside Services.

Premiums written in 2019 will benefit from the full year impact of the addition of a leading U.S. retailer, but will be partially offset by the loss of existing retailer relationships in the normal course of business.

SquareTrade and Allstate Dealer Services issue contractual liability insurance policies or guaranteed asset protection reimbursement insurance policies to cover the liabilities of their products where required by state regulations. The products offered through SquareTrade and Allstate Dealer Services fall under the regulation of departments of insurance in many states with requirements for filing of forms and rates varying by product and by state. PIF increased 70.5% or 30.7 million to 74.2 million as of December 31, 2018 compared to 43.5 million as of December 31, 2017 due to continued growth at SquareTrade, including the addition of a leading U.S.

retailer, and the acquisition of InfoArmor. PIF increased by 38.6 million to 43.5 million as of December 31, 2017 compared to 4.9 million as of December 31, 2016 due to the acquisition of SquareTrade.

Intersegment premiums and service fees of \$122 million in 2018 increased from \$110 million and \$105 million in 2017 and 2016, respectively, primarily related to increased auto connections through Arity's device and mobile data collection services and analytic solutions.

Other revenue of \$82 million in 2018 increased from \$66 million and \$64 million in 2017 and 2016, respectively, primarily due to the acquisition of InfoArmor in 2018.

Claims and claims expense decreased 4.9% to \$351 million in 2018 from \$369 million in 2017, primarily due to improved loss experience at SquareTrade and Allstate Dealer Services, including a decrease in catastrophe losses as Allstate Dealer Services was impacted by Hurricane Harvey in 2017, partially offset by higher loss costs at Allstate Roadside Services. Claims and claims expense increased 43.0% to \$369 million in 2017 from \$258 million in 2016, primarily due to the acquisition of SquareTrade on January 3, 2017.

Amortization of DAC increased 56.4% or \$167 million to \$463 million in 2018 from \$296 million in 2017, including \$101 million in 2018 related to the adoption of the revenue from contracts with customers accounting standard. The remaining increase of \$66 million is due to the growth experienced at SquareTrade and Allstate Dealer Services. Operating costs and expenses increased 9.4% to \$511 million in 2018 from \$467 million in 2017, primarily due to higher product and advertising costs at SquareTrade, higher costs for device data collection services, investments in research and business expansion at Arity and the addition of InfoArmor. Operating costs and expenses increased

62.7% to \$467 million in 2017 from \$287 million in 2016, primarily due to the acquisition of SquareTrade on January 3, 2017, Allstate Roadside Services increase in strategic investments in the Good Hands Rescue Network, and investments in Arity's research and business expansion.

Amortization of purchased intangible assets relates to the acquisitions of SquareTrade and InfoArmor. We recognized \$555 million of intangible assets for SquareTrade and we recorded amortization expense of \$81 million in 2018 compared to \$92 million in 2017. We recognized \$257 million of intangible assets for InfoArmor and we recorded amortization expense of \$13 million in 2018.

2018 Form 10-K Claims and Claims Expense Reserves

Claims and Claims Expense Reserves

Underwriting results are significantly influenced by estimates of claims and claims expense reserves. For a description of our reserve process, see Note 8 of the consolidated financial statements. Further, for a description of our reserving policies and the potential variability in our reserve estimates, see the Application of Critical Accounting Estimates section of the MD&A. These reserves are an estimate of amounts necessary to settle all outstanding claims, including IBNR claims, as of the reporting date.

The facts and circumstances leading to our reestimates of reserves relate to revisions to the development factors used to predict how losses are likely to develop from the end of a reporting period until all claims have been paid. Reestimates occur because actual losses are likely different than those predicted by the estimated development factors used in prior reserve estimates.

We believe the net loss reserves exposures are appropriately established based on available facts, technology, laws and regulations.

Total reserves, net of recoverables ("net reserves"), as of December 31, by line of business

(\$ in millions)	2018	2017	2016
Allstate brand	\$17,272	\$16,826	\$16,108
Esurance brand	862	777	740
Encompass brand	691	758	749
Total Allstate Protection	18,825	18,361	17,597
Discontinued Lines and Coverages	1,391	1,407	1,445
Total Property-Liability	20,216	19,768	19,042
Service Businesses	52	86	24
Total net reserves	\$20,268	\$19,854	\$19,066

The year-end 2018 gross reserves of \$27.42 billion for insurance claims and claims expense were \$8.52 billion more than the net reserve balance of \$18.90 billion recorded on the basis of statutory accounting practices for reports provided to state regulatory authorities. The principal differences are recoverables from third parties totaling \$7.16 billion, including \$5.37 billion of indemnification recoverables related to the Michigan Catastrophic Claims Association ("MCCA"), that reduce reserves for statutory reporting, but are

recorded as assets for GAAP reporting, and a liability for the reserves of the Canadian subsidiaries for \$1.26 billion that are a component of our consolidated reserves, but not included in our U.S. statutory reserves. The tables below show net reserves representing the estimated cost of outstanding claims as they were recorded at the beginning of years 2018, 2017 and 2016, and the effect of reestimates in each year.

Net reserves

	January	1 reserves	3
(\$ in millions)	2018	2017	2016
Allstate brand	\$16,826	\$16,108	\$14,953
Esurance brand	777	740	717
Encompass brand	758	749	770
Total Allstate Protection	18,361	17,597	16,440
Discontinued Lines and Coverages	1,407	1,445	1,516
Total Property-Liability	19,768	19,042	17,956
Service Businesses	86	24	21
Total net reserves	\$19,854	\$19,066	\$17,977

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Impact of reserve reestimates by brand on combined ratio and underwriting income

(\$ in millions, except ratios)	2018				2017				2016			
	Reserve		Effect	on	Reserv	<i>'e</i>	Effect	on	Reserv	/e	Effect	on
	Nesel v	V C	çΩmbi	neo	dreestin	nat	ecombi	ine	dreestir	nat	e combi	ined
	reesur	nau	ratio (5)	(4)		ratio (5)	(4)		ratio (5)
Allstate brand (1)	\$(332)	(1.0))	\$(585)	(1.8)	\$(110)	(0.3))
Esurance brand ⁽²⁾	3				(2)			(21)	(0.1))
Encompass brand (3)	(11)			(14)	(0.1))	5			
Total Allstate Protection	(340)	(1.0))	(601)	(1.9)	(126)	(0.4))
Discontinued Lines and Coverages	87		0.2		96		0.3		105		0.3	
Total Property-Liability (6)	(253)	(0.8))	(505)	(1.6)	(21)	(0.1))
Service Businesses	(2)			2				4			
Total	\$(255)			\$(503)			\$(17)		
Reserve reestimates, after-tax	\$(201)			\$(327)			\$(11)		
Consolidated net income applicable to common shareholders	\$2,10	4			\$3,073	3			\$1,76	1		
Reserve reestimates as a % impact on consolidated net income applicable to common shareholders	9.6	%			10.6	%	1		0.6	%	ı	

- (1) Impact of reserve reestimates on Allstate brand underwriting income were 15.0%, 26.6% and 7.5% in 2018, 2017 and 2016, respectively.
- (2) Impact of reserve reestimates on Esurance brand underwriting loss were (12.0)%, 3.6% and 16.9% in 2018, 2017 and 2016, respectively.
- (3) Impact of reserve reestimates on Encompass brand underwriting income (loss) were 84.6% and 42.4% in 2018 and 2017, respectively. Impact on results in 2016 were not meaningful.
- (4) Favorable reserve reestimates are shown in parentheses.
- (5) Ratios are calculated using property and casualty premiums earned.
- (6) Prior year reserve reestimates included in catastrophe losses totaled \$25 million unfavorable, \$18 million favorable and \$6 million unfavorable in 2018, 2017 and 2016, respectively.

The following tables reflect the accident years to which the reestimates shown above are applicable. Favorable reserve reestimates are shown in parentheses.

2018 prior year reserve reestimates

- T						
	2013					
(\$ in millions)	&	2014	2015	2016	2017	Total
	prior					
Allstate brand	\$(61)	\$(50)	\$(25)	\$(146)	\$(50)	\$(332)
Esurance brand	(5)	(6)	9	13	(8)	3
Encompass brand	(12)	(11)	(15)	1	26	(11)
Total Allstate Protection	(78)	(67)	(31)	(132)	(32)	(340)
Discontinued Lines and Coverages	87			_		87
Total Property-Liability	9	(67)	(31)	(132)	(32)	(253)
Service Businesses				_	(2)	(2)
Total	\$9	\$(67)	\$(31)	\$(132)	\$(34)	\$(255)
2017 prior year reserve reestimates						
	2012					
(\$ in millions)	&	2013	2014	2015	2010	5 Total
	prior					

Allstate brand	\$3		\$(99)	\$(103	3)	\$(121	.)	\$(265	5)	\$(585	5)
Esurance brand	(3)	(1)	(12)	1		13		(2)
Encompass brand	(6)	(1)	(4)	(1)	(2)	(14)
Total Allstate Protection	(6)	(101)	(119)	(121)	(254)	(601)
Discontinued Lines and Coverages	96		_		_		_		_		96	
Total Property-Liability	90		(101)	(119)	(121)	(254)	(505)
Service Businesses	_		_		_		_		2		2	
Total	\$90		\$(101	(\$(119)	\$(121	.)	\$(252	2)	\$(503	3)

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2016 prior year reserve reestimates

	2011					
(\$ in millions)	&	2012	2013	2014	2015	Total
	prior					
Allstate brand	\$(11)	\$(52)	\$(69)	\$(40)	\$ 62	\$(110)
Esurance brand	(7)	(3)	(5)	(9)	3	(21)
Encompass brand	(25)	7	3	14	6	5
Total Allstate Protection	(43)	(48)	(71)	(35)	71	(126)
Discontinued Lines and Coverages	105				_	105
Total Property-Liability	62	(48)	(71)	(35)	71	(21)
Service Businesses				_	4	4
Total	\$62	\$(48)	\$(71)	\$(35)	\$ 75	\$(17)

Allstate Protection

The tables below show Allstate Protection net reserves representing the estimated cost of outstanding claims as they were recorded at the beginning of years 2018, 2017, and 2016, and the effect of reestimates in each year. Net reserves by line

	January 1 reserves							
(\$ in millions)	2018	2017	2016					
Auto	\$14,051	\$13,530	\$12,459					
Homeowners	2,205	1,990	1,937					
Other personal lines	1,489	1,456	1,490					
Commercial lines	616	621	554					
Total Allstate Protection	\$18,361	\$17,597	\$16,440					

Impact of reserve reestimates by line on combined ratio and underwriting income

(\$ in millions, except ratios)	2018	2017	2016
	Reserve reestimate ratio	Reserve	Reserve
Auto	\$(455) (1.3)	\$(490) (1.5)	\$(155) (0.5)
Homeowners	14 —	(131) (0.4)	(24) (0.1)
Other personal lines	(7) —	1 —	(9) —
Commercial lines	108 0.3	19 —	62 0.2
Total Allstate Protection	\$(340) (1.0)	\$(601) (1.9)	\$(126) (0.4)
Underwriting income	\$2,187	\$2,111	\$1,327
Reserve reestimates as a % impact on underwriting income	15.5 %	28.5 %	9.5 %

Prior year reserve reestimates are developed based on factors that are calculated quarterly and periodically throughout the year for data elements such as claims reported and settled, paid losses and paid losses combined with case reserves. These data elements are primarily responsible for revisions to loss development factors used to predict how losses are likely to develop from the end of a reporting period until all claims have been paid. When actual development of these data elements is different than the historical development pattern used in a prior period reserve estimate, reserves are revised as actuarial studies validate new trends based on the indications of updated development factor calculations. On-going claims organizational and process changes that are occurring are considered within our estimation process.

Favorable reserve reestimates for auto in 2018 primarily related to continued favorable personal lines auto injury coverage development, offset by strengthening in our commercial lines and personal injury protection ("PIP") coverage, including an unfavorable ruling against the insurance industry related to Florida PIP. Auto liability claims process

changes implemented in prior years, including a program requiring enhanced documentation of injuries and related medical treatments, have resulted in favorable severity trends compared to those originally estimated as we continue to develop greater experience in settling claims under these programs. The impact of these program changes have begun to moderate. Unfavorable results for commercial lines in 2018 were primarily due to non-catastrophe auto loss development being higher than anticipated in previous estimates.

Favorable reserve reestimates for auto and homeowners in 2017 were primarily related to a reduction in claim severity estimates for liability coverages. Auto liability claims process changes implemented in prior years also impacted 2017 results. Auto liability legislative reforms, higher limits and longer settlement periods in Canada resulted in uncertainty that has developed favorably as loss experience emerges. Unfavorable results for commercial lines in 2017 were primarily due to non-catastrophe auto loss development being higher than anticipated in previous estimates.

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Favorable auto reserve reestimates in 2016 were primarily due to severity development for auto liability coverages that was better than expected. Favorable homeowners reserve reestimates in 2016 were primarily due to severity development for liability coverages related to the timing of payments. Other personal lines reserve reestimates in 2016 were primarily due to non-catastrophe loss development lower than anticipated in previous estimates.

Commercial lines reserve reestimates in 2016 were primarily due to severity development for auto bodily injury coverage that was more than expected.

Estimating the ultimate cost of claims and claims expenses is an inherently uncertain and complex process involving a high degree of judgment and is subject to the evaluation of numerous variables.

Pending, new and closed claims for Allstate Protection are summarized in the following table for the years ended December 31. The increases in pending claims as of December 31, 2018 compared to December 31, 2017 were primarily due to increases in the amount of time to settle auto liability claims and growth in the business. The increases in pending claims as of December 31, 2017 compared to December 31, 2016 were primarily due to increases in the amount of time to settle claims.

Summary of pending new and closed claims for Allstate

Protection			
Number of claims	2018	2017	2016
Auto			
Pending, beginning of year	538,424	534,531	521,890
New	6,494,554	6,448,747	6,844,491
Total closed	(6,443,276)	(6,444,854)	(6,831,850)
Pending, end of year	589,702	538,424	534,531
Homeowners			
Pending, beginning of year	37,294	34,691	38,865
New	810,919	898,512	818,084
Total closed	(806,559)	(895,909)	(822,258)
Pending, end of year	41,654	37,294	34,691
Other personal lines			
Pending, beginning of year	17,077	14,937	15,835
New	212,061	242,427	219,053
Total closed	(211,309)	(240,287)	(219,951)
Pending, end of year	17,829	17,077	14,937
Commercial lines			
Pending, beginning of year	10,416	11,518	11,837
New	72,326	55,308	73,139
Total closed	(70,203)	(56,410)	(73,458)
Pending, end of year	12,539	10,416	11,518
Total Allstate Protection			
Pending, beginning of year	603,211	595,677	588,427
New	7,589,860	7,644,994	7,954,767
Total closed	(7,531,347)	(7,637,460)	(7,947,517)
Pending, end of year	661,724	603,211	595,677
Discontinued Lines and Cox	zeragec		

Discontinued Lines and Coverages

We conduct an annual review in the third quarter of each year to evaluate and establish asbestos, environmental and other discontinued lines reserves. Reserves are recorded in the reporting period in which they are determined. Using established industry and actuarial best practices and assuming no change in the

regulatory or economic environment, this detailed and comprehensive methodology determines reserves based on assessments of the characteristics of exposure (e.g. claim activity, potential liability, jurisdiction, products versus non-products exposure) presented by policyholders.

Discontinued Lines and Coverages reserve reestimates

(\$ in millions)	2018		2017		2016	
	January	Reserve	January	y Reserve	January	Reserve
	1	reestimate	1	reestimate	1	reestimate
	reserve	S Teestimate	reserve	es leestimate	reserve	S Teestimate
Asbestos claims	\$884	\$ 44	\$912	\$ 61	\$960	\$ 67
Environmental claims	166	20	179	10	179	23
Other discontinued lines	357	23	354	25	377	15
Total	\$1,407	\$ 87	\$1,445	\$ 96	\$1,516	\$ 105
Underwriting loss		\$ (90)		\$ (99)		\$ (107)

Reserve additions for asbestos in 2018 were primarily related to new reported information, changes

in our projections of reported claims and settlement agreements, including bankruptcy proceedings.

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Reserve additions for asbestos in 2017 were primarily related to new reported information and settlement agreements, including bankruptcy proceedings. Reserve additions for asbestos in 2016 were primarily related to insured business and claim development, new reported information on insured's claims, expanded expected exposure periods and other legal settlements including insured's bankruptcy proceedings.

Reserve additions for environmental in 2018 were primarily related to expected greater loss activity for future claims. Reserve additions for environmental in 2017 and 2016 were primarily related to greater reported loss activity than expected.

Reserves and claim activity before (Gross) and after (Net) the effects of reinsurance

(\$ in millions, except ratios)	2018		2017		2016	
_	Gross	Net	Gross	Net	Gross	Net
Asbestos claims						
Beginning reserves	\$1,296	\$884	\$1,356	\$912	\$1,418	\$960
Incurred claims and claims expense	89	44	79	61	96	67
Claims and claims expense paid	(119)	(62)	(139)	(89)	(158)	(115)
Ending reserves	\$1,266	\$866	\$1,296	\$884	\$1,356	\$912
Annual survival ratio	10.6	14.0	9.3	9.9	8.6	7.9
3-year survival ratio	9.1	9.7	9.2	8.9	9.9	9.2
Environmental claims						
Beginning reserves	\$199	\$166	\$219	\$179	\$222	\$179
Incurred claims and claims expense	30	20	9	10	24	23
Claims and claims expense paid	(20)	(16)	(29)	(23)	(27)	(23)
Ending reserves	\$209	\$170	\$199	\$166	\$219	\$179
Annual survival ratio	10.5	10.6	6.9	7.2	8.1	7.8
3-year survival ratio	8.4	8.2	6.9	6.9	8.1	7.8
Combined environmental and asbestos claims						
Annual survival ratio	10.6	13.3	8.9	9.4	8.5	7.9
3-year survival ratio	9.0	9.5	8.8	8.5	9.6	8.9
Percentage of IBNR in ending reserves		49.6 %		52.7 %		56.7 %

The survival ratio is calculated by taking our ending reserves divided by payments made during the year. This is a commonly used but extremely simplistic and imprecise approach to measuring the adequacy of asbestos and environmental reserve levels. Many factors, such as mix of business, level of coverage provided and settlement procedures have significant impacts on the amount of environmental and asbestos claims and claims expense reserves, claim payments and the resultant ratio. As payments result in

corresponding reserve reductions, survival ratios can be expected to vary over time. In 2018, the asbestos and environmental net 3-year survival ratio increased due to lower claim payments associated with settlement agreements. In 2017 and 2016, the asbestos and environmental net 3-year survival ratio decreased due to increased claim payments associated with settlement agreements expected to be substantially paid out over the next several years.

Net asbestos reserves by type of exposure and total reserve additions

(\$ in millions)	December 31, 2018			December 31, 2017					December 31, 2016)			
	Act	i W	et	% of	f	Act	iW	et	% o	f	Act	i₩	et	Ç	% of	•
	pol	icre	steorketesr	s rese	rves	pol	icre	sterkd	esrs rese	rves	poli	icre	steerk	besrs r	eser	ves
Direct policyholders:																
Primary	51	\$	12	1	%	48	\$	10	1	%	51	\$	9	1	l	%

Excess	295 309	36	296 308	35	297 266	29
Total case reserves	346 321	37	344 318	36	348 275	30
Assumed reinsurance	138	16	117	13	125	14
IBNR	407	47	449	51	512	56
Total net reserves	\$ 866	100 %	\$ 884	100 %	\$ 912	100 %
Total reserve additions	\$ 44		\$ 61		\$ 67	

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At December 31, 2018, there were 346 active policyholders with open asbestos claims.

Active policyholders increased by 2 in 2018, including 13 policyholders reporting asbestos claims for the first time and the closing of all claims for 11 policyholders.

Active policyholders decreased by 4 in 2017, including 10 policyholders reporting asbestos claims for the first time and the closing of all claims for 14 policyholders.

Active policyholders increased by 2 in 2016, including 17 policyholders reporting asbestos claims for the first time and the closing of all claims for 15 policyholders.

IBNR net reserves decreased \$42 million as of December 31, 2018 compared to December 31, 2017, due to the transfer of IBNR to case reserves through settlement agreements with insureds on large claims where the scope of coverages have been agreed. IBNR provides for reserve development of known claims and future reporting of additional unknown claims from current policyholders and ceding companies.

Claims counts for asbestos and environmental exposures

	For the years ended						
	Decem	ber 31,					
Number of claims	2018	2017	2016				
Asbestos							
Pending, beginning of year	6,659	6,883	7,151				
New	427	406	477				
Closed	(646)	(630)	(745)				
Pending, end of year	6,440	6,659	6,883				
Closed without payment	446	377	373				
Environmental							
Pending, beginning of year	3,351	3,399	3,504				
New	335	375	292				
Closed	(457)	(423)	(397)				

3,229 3,351 3,399

211

299

320

Reinsurance and indemnification programs We utilize reinsurance to reduce exposure to catastrophe risk and manage capital, and to support the required statutory surplus and the insurance financial strength ratings of certain subsidiaries such as Castle Key Insurance Company ("CKIC") and Allstate New Jersey Insurance Company ("ANJ"). We purchase significant reinsurance to manage our aggregate countrywide exposure to an acceptable level. The price and terms of reinsurance and the credit quality of the reinsurer are considered in the purchase process, along with whether the price can be appropriately reflected in the

costs that are considered in setting future rates charged to policyholders. We have also historically purchased reinsurance to mitigate long-tail liability lines, including environmental, asbestos and other discontinued lines exposures. We also participate in various indemnification mechanisms, including state-based industry pool or facility programs mandating participation by insurers offering certain coverage in their state and the federal government National Flood Insurance Program ("NFIP"). See Note 10 of the consolidated financial statements for additional details on these programs.

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Pending, end of year

Closed without payment

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Reinsurance and indemnification recoverable balances net of the allowance established for uncollectible amounts

	S&P financial strength	Reinsurance indemnificat recoverable unpaid claim	ion on paid and		
(\$ in millions)	rating (1)	2018	2017		
Indemnification programs					
State-based industry pool or facility programs					
MCCA (2)	N/A	\$ 5,400	\$ 5,261		
New Jersey Property-Liability Insurance Guaranty Association ("PLIGA")	N/A	461	493		
North Carolina Reinsurance Facility	N/A	86	86		
Florida Hurricane Catastrophe Fund ("FHCF")	N/A	104	19		
Other		9	6		
Federal Government - NFIP	N/A	31	88		
Subtotal		6,091	5,953		
Catastrophe reinsurance recoverables					
Renaissance Reinsurance Limited	A+	65	1		
Swiss Reinsurance America Corporation	AA-	39			
Arch Reinsurance Limited	A+	37			
Other		412	10		
Subtotal		553	11		
Other reinsurance recoverables (3)					
Lloyd's of London ("Lloyd'(\$)")	A+	165	167		
Westport Insurance Corporation	AA-	60	61		
TIG Insurance Company	N/A	35	31		
Other, including allowance for future uncollectible recoverables		344	326		
Subtotal		604	585		
Total Property-Liability		7,248	6,549		
Service Businesses		18	18		
Total		\$ 7,266	\$ 6,567		

 $^{^{(1)}}$ N/A reflects no S&P Global Ratings ("S&P") rating available.

As of December 31, 2018 and 2017, MCCA includes \$30 million and \$27 million of reinsurance recoverable on paid claims, respectively, and \$5.37 billion and \$5.23 billion of reinsurance recoverable on unpaid claims, respectively.

⁽³⁾ Other reinsurance recoverables primarily relate to asbestos, environmental and other liability exposures.

⁽⁴⁾ As of December 31, 2018, case reserves for Lloyd's were 69% of the reinsurance recoverable for unpaid claims. Reinsurance and indemnification recoverables include an estimate of the amount of insurance claims and claims expense reserves that are ceded under the terms of the agreements, including incurred but not reported unpaid losses. We calculate our ceded reinsurance and indemnification estimates based on the terms of each applicable agreement, including an estimate of how IBNR losses will ultimately be ceded under the agreement. We also consider other limitations and coverage exclusions under our agreements. Accordingly, our estimate of recoverables is subject to similar risks and uncertainties as our estimate of reserves claims and claims expense. We believe the recoverables are appropriately established; however, as our underlying reserves continue to develop, the amount ultimately recoverable may vary from amounts currently recorded. We regularly evaluate the reinsurers and the respective amounts of our reinsurance recoverables, and a provision for uncollectible reinsurance recoverables is recorded, if needed. The establishment of reinsurance recoverables and the related allowance for uncollectible reinsurance is also an inherently

uncertain process involving estimates. Changes in estimates

could result in additional changes to the Consolidated Statements of Operations.

Indemnification recoverables are considered collectible based on the industry pool and facility enabling legislation and the Company has not had any credit losses related to these programs. We also have not experienced credit losses on our catastrophe reinsurance programs. The allowance for uncollectible reinsurance relates to other reinsurance programs primarily related to our Discontinued Lines and Coverages segment. This allowance was \$65 million and \$70 million as of December 31, 2018 and 2017, respectively, which represents 11.8% and 12.0% of the related reinsurance recoverable balances as of December 31, 2018 and 2017, respectively. The allowance is based upon our ongoing review of amounts outstanding, length of collection periods, changes in reinsurer credit standing, and other relevant factors. In addition, in the ordinary course of business, we may become involved in coverage disputes with certain of our reinsurers that may ultimately result in lawsuits and arbitrations brought by or against such reinsurers to determine the parties'

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rights and obligations under the various reinsurance agreements. We employ dedicated specialists to manage reinsurance collections and disputes. We also consider recent developments in commutation activity between reinsurers and cedents, and recent trends in arbitration and litigation outcomes in disputes between cedents and reinsurers in seeking to maximize our reinsurance recoveries.

Adverse developments in the insurance industry have led to a decline in the financial strength of some of our reinsurance carriers, causing amounts recoverable from them and future claims ceded to them to be considered a higher risk. There has also been consolidation activity in the industry, which

causes reinsurance risk across the industry to be concentrated among fewer companies. In addition, some companies have segregated asbestos, environmental, and other discontinued lines exposures into separate legal entities with dedicated capital. Regulatory bodies in certain cases have supported these actions. We are unable to determine the impact, if any, that these developments will have on the collectability of reinsurance recoverables in the future. For a detailed description of the MCCA, PLIGA and Lloyd's, see Note 10 of the consolidated financial statements. Effects of reinsurance ceded and indemnification programs on our premiums earned and claims and claims expense

	For the years ended December 31,					
(\$ in millions)	2018	2017	2016			
Allstate Protection - Premiums						
Indemnification programs						
State-based industry pool or facility programs						
MCCA	\$77	\$73	\$73			
PLIGA	9	9	8			
FHCF	10	11	12			
Other	90	108	99			
Federal Government - NFIP	258	263	274			
Catastrophe reinsurance	344	344	381			
Other reinsurance programs	54	_	_			
Total Allstate Protection	842	808	847			
Discontinued Lines and Coverages		_	_			
Total Property-Liability	842	808	847			
Service Businesses	174	163	140			
Total effect on premiums earned	\$1,016	\$971	\$987			
Allstate Protection - Claims						
Indemnification programs						
State-based industry pool or facility programs						
MCCA	\$233	\$410	\$386			
PLIGA	(6)	3	20			
FHCF	148	19	_			
Other	90	89	82			
Federal Government - NFIP	118	1,116	537			
Catastrophe reinsurance	604	46	(9)		
Other reinsurance programs	40	_	_			
Total Allstate Protection	1,227	1,683	1,016			
Discontinued Lines and Coverages	57	35	27			
Total Property-Liability	1,284	1,718	1,043			

Service Businesses 94 89 73 Total effect on claims and claims expense \$1,378 \$1,807 \$1,116

In 2018, 2017 and 2016, ceded premiums earned increased primarily due to increased indemnification program reinsurance premium rates and a decrease in policies written for the NFIP.

In 2018, ceded claims and claims expenses decreased \$429 million, primarily due to higher amounts related to the NFIP in 2017. In 2017, ceded claims and claims expenses increased \$691 million, primarily due to higher amounts related to the NFIP related to claims as a result of Hurricanes Harvey and Irma. Ceded claims and claims expenses increased in

2016, primarily due to higher amounts related to the NFIP as the result of Louisiana flooding. Our claim reserve development experience is consistent with the MCCA's overall experience with reported and pending claims increasing in recent years. Moreover, the MCCA has reported severity increasing with nearly 57% of reimbursements for attendant and residential care services. Michigan's unique no-fault motor vehicle insurance law provides unlimited lifetime coverage for medical expenses resulting from motor vehicle accidents. The reserve

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increases in the MCCA program are attributable to an increased recognition of longer term paid loss trends. The paid loss trends are rising due to increased costs in medical and attendant care and increased longevity of claimants. As a result of continuing to originate

motor vehicle policies in Michigan with unlimited personal injury protection coverage, we expect the number of MCCA covered claims and losses to increase each year.

Michigan personal injury protection reserve and claim activity before and after the effects of MCCA recoverables

For the years ended December 31,

	2018		2017		2016	
(\$ in millions)	Gross	Net	Gross	Net	Gross	Net
Beginning reserves	\$5,799	\$565	\$5,443	\$522	\$5,121	\$486
Incurred claims and claims expense-current year	449	189	513	195	578	214
Incurred claims and claims expense-prior years	9	35	117	25	8	(15)
Claims and claims expense paid-current year (1)	(52)	(51)	(54)	(53)	(60)	(58)
Claims and claims expense paid-prior years (1)	(230)	(133)	(220)	(124)	(204)	(105)
Ending reserves (2)	\$5,975	\$605	\$5,799	\$565	\$5,443	\$522

- Paid claims and claims expenses reported in the table for the current and prior years, recovered from the MCCA totaled \$98 million, \$97 million and \$101 million in 2018, 2017 and 2016, respectively.
 - Gross reserves for the year ended December 31, 2018, comprise 88% case reserves and 12% IBNR. Gross reserves
- (2) for the year ended December 31, 2017, comprise 87% case reserves and 13% IBNR. Gross reserves for the year ended December 31, 2016 comprise 85% case reserves and 15% IBNR. The MCCA does not require member companies to report ultimate case reserves.

Pending MCCA claims differ from most personal lines insurance pending claims as other personal lines policies have coverage limits and incurred claims settle in shorter periods. Claims are considered pending as long as payments are continuing pursuant to an outstanding MCCA claim, which can be for a claimant's lifetime. Many of these injuries are catastrophic in

nature, resulting in serious permanent disabilities that require attendant and residential care for periods that may span decades. A significant portion of the ultimate incurred claim reserves and the recoverables can be attributed to a small number of catastrophic claims that occurred more than five years ago and continue to pay lifetime benefits.

Pending, new and closed claims for Michigan

personal injury protection exposures

	For the years ended					
	December 31,					
Number of claims (1)	2018	2017	2016			
Pending, beginning of year	4,983	5,388	5,127			
New	7,858	8,494	9,577			
Closed	(8,029)	(8,899)	(9,316)			
Pending, end of year	4,812	4,983	5,388			

⁽¹⁾ Total claims includes those covered and not covered by the MCCA indemnification.

As of December 31, 2018, approximately 1,645 of our pending claims have been reported to the MCCA, of which approximately 50% represents claims that occurred more than 5 years ago. There are 75 Allstate brand claims with reserves in excess of \$15 million as of December 31, 2018, which comprise approximately 37% of the gross ending reserves in the table above. As a result, significant developments with a single claimant can result in volatility in prior year incurred claims.

Intercompany reinsurance We enter into certain intercompany insurance and reinsurance transactions in order to maintain underwriting control and manage insurance risk among various legal entities. These reinsurance agreements have been approved by the appropriate regulatory authorities. All significant intercompany transactions have been eliminated in consolidation.

Catastrophe reinsurance Our catastrophe reinsurance program is designed, utilizing our risk management methodology, to address our exposure to catastrophes nationwide. Our program is designed to provide reinsurance protection for catastrophes resulting from multiple perils including hurricanes, windstorms, hail, tornadoes, fires following earthquakes, earthquakes and wildfires. These reinsurance agreements are part of our catastrophe management strategy, which is intended to provide our shareholders an acceptable return on the risks assumed in our property business, and to reduce variability of earnings, while providing protection to our customers. We anticipate completing the placement of our 2019 nationwide catastrophe reinsurance program in the second quarter of 2019. We expect the program will be similar to our 2018 nationwide catastrophe reinsurance program, but will evaluate opportunities to improve the economic terms and conditions. For further details of the existing 2018 program, see Note 10 of the consolidated financial statements.

Allstate Life 2018 Form 10-K

Allstate Life Segment

Allstate Life offers traditional, interest-sensitive and variable life insurance. In 2018, Allstate Life represented 4.8% of total revenue, 1.8% of total PIF and 10.1% of total adjusted net income. Our target customers prefer local personalized advice and service and are brand-sensitive. For additional information on our strategy and outlook, see Part I, Item 1. Business - Strategy and Segment Information.

Summarized financial information

	For the years ended December 31,						
(\$ in millions)	2018	2017	2016				
Revenues							
Premiums and contract charges	\$1,315	\$1,280	\$1,250	1			
Other revenue	119	114	113				
Net investment income	505	489	482				
Realized capital gains and losses	(14) 5	(38)			
Total revenues	1,925	1,888	1,807				
Costs and expenses							
Contract benefits	(809	(765)	(742)			
Interest credited to contractholder funds	(285)) (282)	(285)			
Amortization of DAC) (134))			
Operating costs and expenses			(338)			
Restructuring and related charges)			
Total costs and expenses	(1,598)	(1,535)	(1,497)			
Income tax (expense) benefit) 224	•)			
Net income applicable to common shareholders	\$254	\$577	\$219				
Adjusted net income	\$289	\$253	\$247				
Realized capital gains and losses, after-tax	` ,) 2)			
DAC and DSI amortization related to realized capital gains and losses, after-tax			(4)			
Tax Legislation (expense) benefit		332					
Net income applicable to common shareholders	\$254	\$577	\$219				
Reserve for life-contingent contract benefits as of December 31	\$2,677	\$2,636	\$2,578				
Contractholder funds as of December 31	\$7,656	\$7,608	\$7,464				
Policies in force as of December 31 by distribution channel (in thousands)							
Allstate agencies	1,831	1,822	1,804				
Closed channels	191	204	219				
Total	2,022	2,026	2,023				
Not in some small solds to some on about allow the first	md \$210 -	m:11: an :-	2010 20	11			

Net income applicable to common shareholders was \$254 million, \$577 million and \$219 million in 2018, 2017 and 2016, respectively. 2018 and 2017 results include a tax expense of \$16 million and a tax benefit of \$332 million, respectively, related to the Tax Legislation.

Adjusted net income was \$289 million in 2018 compared to \$253 million in 2017. The increase was primarily due to a lower effective tax rate from the Tax Legislation and increased premiums and contract charges, partially offset by higher contract benefits.

Adjusted net income was \$253 million in 2017 compared to \$247 million in 2016. The increase was primarily due to higher premiums and contract

charges, partially offset by higher contract benefits and operating costs and expenses.

Premiums and contract charges increased 2.7% or \$35 million in 2018 compared to 2017. The increase primarily relates to growth in traditional life insurance as well as lower reinsurance premiums ceded. Approximately 85% of Allstate Life's traditional life insurance premium relates to term life insurance products.

Premiums and contract charges increased 2.4% or \$30 million in 2017 compared to 2016. The increase primarily relates to higher traditional life insurance renewal premiums as well as lower levels of reinsurance premiums ceded.

2018 Form 10-K Allstate Life

Premiums and contract charges by product

	For the years ended December 31,			
(\$ in millions)	2018	2017	2016	
Traditional life insurance premiums	\$600	\$568	\$533	
Accident and health insurance premiums	2	2	2	
Interest-sensitive life insurance contract charges	713	710	715	
Premiums and contract charges (1)	\$1,315	\$1,280	\$1,250	

⁽¹⁾ Contract charges related to the cost of insurance totaled \$493 million, \$487 million and \$488 million in 2018, 2017 and 2016, respectively.

Contract benefits increased 5.8% or \$44 million in 2018 compared to 2017, primarily due to higher claim experience on both traditional and interest-sensitive life insurance. Contract benefits increased 3.1% or \$23 million in 2017 compared to 2016, primarily due to growth in business in force.

Our annual review of assumptions in 2018 resulted in a \$1 million increase in reserves primarily for secondary guarantees on interest-sensitive life insurance due to higher than anticipated policyholder persistency. In 2017, the review resulted in a \$12 million increase in reserves, primarily for secondary guarantees on interest-sensitive life insurance due to increased projected exposure to benefits paid under secondary guarantees resulting from continued low interest rates.

Benefit spread reflects our mortality and morbidity results using the difference between premiums and contract charges earned for the cost of insurance and contract benefits ("benefit spread"). Benefit spread decreased 2.1% to \$286 million in 2018 compared to \$292 million in 2017, primarily due to higher claim experience, partially offset by growth in traditional life insurance premiums. Benefit spread increased 3.9% to

\$292 million in 2017 compared to \$281 million in 2016, primarily due to growth in business in force. Investment spread reflects the difference between net investment income and interest credited to contractholder funds ("investment spread") and is used to analyze the impact of net investment income and interest credited to contractholders on net income. Investment spread increased 6.3% to \$220 million in 2018 compared to \$207 million in 2017, primarily due to higher net investment income, partially offset by higher credited interest. Investment spread increased 5.1% to \$207 million in 2017 compared to \$197 million in 2016, primarily due to higher net investment

Amortization of DAC decreased 1.5% or \$2 million in 2018 compared to 2017, primarily due to lower gross profits on interest-sensitive life insurance, partially offset by amortization acceleration in 2018 compared to amortization deceleration in 2017 for changes in assumptions. Amortization of DAC increased 2.3% or \$3 million in 2017 compared to 2016, primarily due to higher net realized capital gains and gross profits, partially offset by higher amortization deceleration for changes in assumptions.

Components of amortization of DAC

income and lower credited interest.

	December 31,
(\$ in millions)	2018 2017 2016
Amortization of DAC before amortization relating to realized capital gains and losses and changes in assumptions	\$117 \$134 \$131
Amortization relating to realized capital gains and losses (1)	10 14 6
Amortization acceleration (deceleration) for changes in assumptions ("DAC unlocking")	5 (14)(6)
Total amortization of DAC	\$132 \$134 \$131

The impact of realized capital gains and losses on amortization of DAC is dependent upon the relationship between the assets that give rise to the gain or loss and the product liability supported by the assets. Fluctuations result from changes in the impact of realized capital gains and losses on actual and expected gross profits.

Our annual comprehensive review of assumptions underlying estimated future gross profits for our interest-sensitive life contracts covers assumptions for mortality, persistency, expenses, investment returns, including capital gains and

For the years ended

losses, interest crediting rates to policyholders, and the effect of any hedges.

In 2018, the review resulted in an acceleration of DAC amortization (decrease to income) of \$5 million. DAC amortization acceleration primarily related to the investment margin component of estimated gross profits and was due to lower projected investment returns. This was partially offset by DAC amortization deceleration (increase to income) for changes in the

benefit margin due to a decrease in projected mortality.

In 2017, the review resulted in a deceleration of DAC amortization of \$14 million. DAC amortization deceleration primarily related to the benefit margin component of estimated gross profits and was due to a decrease in projected mortality. This was partially offset by DAC amortization acceleration for changes in the investment margin due to continued low interest rates and lower projected investment returns.

In 2016, the review resulted in a deceleration of DAC amortization of \$6 million. DAC amortization deceleration for changes in the investment margin was due to increased projected investment margins from a

Allstate Life 2018 Form 10-K

favorable asset portfolio mix. DAC amortization deceleration for changes in the expense margin related primarily to variable life insurance and was due to a decrease in projected expenses. Changes in DAC

(\$ in millions)	health	nd ent and	me m	su	rance		Total			
	2018	e years 2017	2018	De	2017	л,	2018		2017	
Balance, beginning of year	\$465	\$438	\$ 687		\$ 762		\$1,152	2	\$1,200	
Acquisition costs deferred	65	66	65		66		130		132	
Amortization of DAC before amortization relating to realized capital gains and losses and changes in assumptions (1)	(41)	(39)	(76)	(95)	(117)	(134)
Amortization relating to realized capital gains and losses (1)	_	_	(10)	(14)	(10)	(14)
Amortization (acceleration) deceleration for changes in assumptions ("DAC unlocking")	_	_	(5)	14		(5)	14	
Effect of unrealized capital gains and losses (2)			150		(46)	150		(46)
Ending balance	\$489	\$465	\$811		\$ 687		\$1,300)	\$1,152	

- (1) Included as a component of amortization of DAC on the Consolidated Statements of Operations.

 Represents the change in the DAC adjustment for unrealized capital gains and losses. The DAC adjustment
- (2) represents the amount by which the amortization of DAC would increase or decrease if the unrealized gains and losses in the respective product portfolios were realized.

Operating costs and expenses increased 4.8% or \$17 million in 2018 compared to 2017, primarily due to higher technology and employee-related costs and higher commissions on non-proprietary product sales.

Operating costs and expenses increased 4.1% or \$14 million in 2017 compared to 2016, primarily due to

higher employee related costs and higher net distribution expenses reflecting increased regulatory compliance costs, partially offset by lower non-deferrable commissions.

Analysis of reserves and contractholder funds

Reserve for life-contingent contract benefits

For the years ended
December 31,
2018 2017 2016
\$2,539 \$2,460 \$2,398
138 176 180

Reserve for life-contingent contract benefits \$2,677 \$2,636 \$2,578

The Allstate Corporation 79

Accident and health insurance

Traditional life insurance

(\$ in millions)

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Contractholder funds represent interest-bearing liabilities arising from the sale of products such as interest-sensitive life insurance. The balance of contractholder funds is equal to the cumulative deposits received and interest credited to the contractholder less cumulative contract benefits, surrenders, withdrawals and contract charges for mortality or administrative expenses.

Change in contractholder funds

	For the years ended			
	December 31,			
(\$ in millions)	2018	2017	2016	
Contractholder funds, beginning balance	\$7,608	\$7,464	\$7,359	
Deposits	965	973	991	
Interest credited	284	282	284	
Benefits, withdrawals and other adjustments				
Benefits	(232)	(241)	(245)	
Surrenders and partial withdrawals	(259)	(254)	(250)	
Contract charges	(704)	(704)	(705)	
Net transfers from separate accounts	6	4	4	
Other adjustments (1)	(12)	84	26	
Total benefits, withdrawals and other adjustments	(1,201)	(1,111)	(1,170)	
Contractholder funds, ending balance	\$7,656	\$7,608	\$7,464	

The table above illustrates the changes in contractholder funds, which are presented gross of reinsurance recoverables on the Consolidated Statements of Financial Position. The table above is intended to supplement our

Contractholder deposits decreased 0.8% in 2018 compared to 2017, and 1.8% in 2017 compared to 2016. The weighted average guaranteed crediting rate and weighted average current crediting rate for our interest-sensitive life insurance contracts, excluding variable life, are both 3.9% as of December 31, 2018.

⁽¹⁾ discussion and analysis of revenues, which are presented net of reinsurance on the Consolidated Statements of Operations. As a result, the net change in contractholder funds associated with products reinsured is reflected as a component of the other adjustments line.

Allstate Life 2018 Form 10-K

Allstate Life reinsurance ceded

In the normal course of business, we seek to limit aggregate and single exposure to losses on large risks by purchasing reinsurance. In addition, we have used reinsurance to effect the disposition of certain blocks of business.

We retain primary liability as a direct insurer for all risks ceded to reinsurers. As of December 31, 2018, approximately 15% of our face amount of life insurance in force was reinsured.

Reinsurance recoverables by reinsurer

	S&P financial strength rating (1)	Reinsurance recover on paid and unpaid benefits For the years ended	
		December 31,	
(\$ in millions)		2018	2017
RGA Reinsurance Company	AA-	\$ 210	\$ 229
Swiss Re Life and Health America, Inc.	AA-	156	159
Munich American Reassurance	AA-	87	91
Transamerica Life Group	AA-	76	77
Scottish Re (U.S.), Inc. (2)	N/A	66	87
John Hancock Life & Health Insurance Company	AA-	53	54
Triton Insurance Company	N/A	45	47
American Health & Life Insurance Co.	N/A	34	37
Lincoln National Life Insurance	AA-	25	28
Security Life of Denver	A	24	27
SCOR Global Life	AA-	14	17
American United Life Insurance Company	AA-	13	14
Other (3)		20	25
Total		\$ 823	\$ 892

⁽¹⁾ N/A reflects no S&P rating available.

We continuously monitor the creditworthiness of reinsurers in order to determine our risk of recoverability on an individual and aggregate basis, and a provision for uncollectible reinsurance is recorded if needed. No amounts have been deemed unrecoverable in the three-years ended December 31, 2018.

We enter into certain intercompany reinsurance transactions for the Allstate Life operations in order to maintain underwriting control and manage insurance risk among various legal entities. These reinsurance agreements have been approved by the appropriate regulatory authorities. All significant intercompany transactions have been eliminated in consolidation.

Scottish Re (U.S.), Inc. was last rated by S&P in 2009 and A.M. Best removed their rating in 2011. Scottish Re (U.S.), Inc. remains current on claims payments to Allstate.

⁽³⁾ As of December 31, 2018 and 2017, the other category includes \$9 million and \$19 million, respectively, of recoverables due from reinsurers rated A- or better by S&P.

2018 Form 10-K Allstate Benefits

Allstate Benefits Segment

Allstate Benefits offers voluntary benefits products, including life, accident, critical illness, short-term disability and other health products. In 2018, Allstate Benefits represented 3.0% of total revenue, 3.7% of total PIF and 4.2% of total adjusted net income. Our target customers are middle market consumers with family financial protection needs. For additional information on our strategy and outlook, see Part I, Item 1. Business - Strategy and Segment Information.

Summarized financial information

Summarized imaneral information	F 41		1	
		years end	ed	
(A. 1111)	Decemb		2016	
(\$ in millions)	2018	2017	2016	
Revenues	*	*		
Premiums and contract charges	-	\$1,084	-	l
Net investment income	77	72	71	
Realized capital gains and losses	,	1	(5)
Total revenues	1,203	1,157	1,077	
Costs and expenses				
Contract benefits	(595)	(564)	(509)
Interest credited to contractholder funds	(35)	(35)	(36)
Amortization of DAC	(145)	(142)	(145)
Operating costs and expenses			(240)
Restructuring and related charges			· —	
Total costs and expenses	(1,060)	(1,010)	(930)
	(20)		/ .	
Income tax expense			(51)
Net income applicable to common shareholders	\$113	\$146	\$96	
Adjusted net income	\$119	\$95	\$100	
Realized capital gains and losses, after-tax	(7)	. —	(4)
DAC and DSI amortization related to realized capital gains and losses, after-tax	1			
Tax Legislation benefit		51		
Net income applicable to common shareholders	\$113	\$146	\$96	
	50.4	52.0	50.2	
Benefit ratio (1)	52.4	52.0	50.3	
Operating expense ratio (2)	25.1	24.5	23.7	
Reserve for life-contingent contract benefits as of December 31	\$1,007	\$979	\$940	
Contractholder funds as of December 31	\$898	\$890	\$881	
	4.000	4.022	0.555	
Policies in force as of December 31 by product type (in thousands)	4,208	4,033	3,755	

⁽¹⁾ Benefit ratio is calculated as contract benefits divided by premiums and contract charges.

Adjusted net income was \$119 million in 2018 compared to \$95 million in 2017. The increase was primarily due to higher premiums and a lower effective tax rate from the Tax Legislation, partially offset by higher contract benefits and operating costs and expenses.

⁽²⁾ Operating expense ratio is calculated as operating costs and expenses divided by premiums and contract charges. Net income applicable to common shareholders was \$113 million, \$146 million and \$96 million in 2018, 2017 and 2016, respectively. 2017 results include a tax benefit of \$51 million related to the Tax Legislation.

Adjusted net income was \$95 million in 2017 compared to \$100 million in 2016. The decrease was

primarily due to higher contract benefits and operating costs and expenses, partially offset by higher premiums and contract charges.

Premiums and contract charges increased 4.7% or \$51 million in 2018 compared to 2017, primarily related to growth in hospital indemnity (included in other health), accident and critical illness products.

Premiums and contract charges increased 7.2% or \$73 million in 2017 compared to 2016, primarily related to growth in critical illness, short-term disability and accident products.

Allstate Benefits 2018 Form 10-K

Premiums and contract charges by product

C	For the years ended			
	December 31,			
(\$ in millions)	2018	2017	2016	
Life	\$155	\$155	\$154	
Accident	297	280	270	
Critical illness	476	468	443	
Short-term disability	108	102	78	
Other health	99	79	66	
Premiums and contract charges	\$1,135	\$1,084	\$1,011	

New annualized premium sales (annualized premiums at initial customer enrollment) decreased 12.4% to \$389 million in 2018 and increased 11.6% to \$444 million in 2017. The decrease in 2018 relates to increased competition and higher initial enrollments for certain accounts in the prior year.

PIF increased 4.3% to 4,208 thousand as of December 31, 2018 compared to 4,033 thousand as of December 31, 2017. PIF increased 7.4% to 4,033 thousand as of December 31, 2017 compared to 3,755 thousand as of December 31, 2016.

Contract benefits increased 5.5% or \$31 million in 2018 compared to 2017 and 10.8% or \$55 million in 2017 compared to 2016. The increase in both periods was primarily due to higher claim experience and growth. Benefit ratio increased to 52.4 in 2018 compared to 52.0 in 2017 due to higher claim experience related to life products, partially offset by lower claim experience in hospital indemnity products. Benefit ratio increased to 52.0 in 2017 compared to 50.3 in 2016 due to higher

claims experience in health products, including critical illness and accident.

Amortization of DAC increased 2.1% or \$3 million to \$145 million in 2018 compared to 2017, primarily due to growth, partially offset by a favorable adjustment associated with our annual review of assumptions. Amortization of DAC decreased 2.1% or \$3 million to \$142 million in 2017 compared to 2016, primarily due to lower amortization associated with our annual comprehensive review of assumptions and lower lapses, partially offset by higher amortization related to growth.

Our annual comprehensive review of assumptions underlying estimated future gross profits for our interest-sensitive life contracts resulted in a deceleration of DAC amortization (increase to income) of \$4 million in 2018 compared to an acceleration of DAC amortization (decrease to income) of \$1 million and \$4 million in 2017 and 2016, respectively.

Changes in DAC

	For the	e years
	ended	
(\$ in millions)	2018	2017
Balance, beginning of year	\$542	\$526
Acquisition costs deferred	150	158
Amortization of DAC before amortization relating to changes in assumptions (1)	(150)	(141)
Amortization relating to realized capital gains and losses (1)	1	_
Amortization deceleration (acceleration) for changes in assumptions ("DAC unlocking")	4	(1)
Effect of unrealized capital gains and losses (2)	2	
Ending balance	\$549	\$542

- (1) Included as a component of amortization of DAC on the Consolidated Statements of Operations.

 Represents the change in the DAC adjustment for unrealized capital gains and losses. The DAC adjustment
- (2) represents the amount by which the amortization of DAC would increase or decrease if the unrealized gains and losses in the respective product portfolios were realized.

Operating costs and expenses

For the years ended December

31,

(\$ in millions) 2018 2017 2016 Non-deferrable commissions \$109 \$98 \$91 General and administrative expenses 176 168 149 Total operating costs and expenses \$285 \$266 \$240

Operating costs and expenses increased 7.1% or \$19 million in 2018 compared to 2017, primarily due to higher non-deferrable commissions (associated with growth in premiums and contract charges) and employee-related costs consistent with growth.

Operating costs and expenses increased 10.8% or \$26 million in 2017 compared to 2016, primarily due to higher employee-related costs and non-deferrable commissions related to growth, as well as higher technology expenses.

2018 Form 10-K Allstate Benefits

Operating expense ratio increased to 25.1 in 2018 compared to 24.5 in 2017, primarily due to policy growth and investments in the business. Operating expense ratio increased to 24.5 in 2017 compared to 23.7 in 2016. Analysis of reserves and contractholder funds

Reserve for life-contingent contract benefits

For the years ended December 31, (\$ in millions) 2018 2017 2016
Traditional life insurance \$269 \$262 \$247
Accident and health insurance 738 717 693
Reserve for life-contingent contract benefits \$1,007 \$979 \$940

Contractholder funds relate to interest-sensitive life insurance and totaled \$898 million as of December 31, 2018 compared to \$890 million as of December 31, 2017 and \$881 million as of December 31, 2016.

Allstate Benefits reinsurance ceded

The vast majority of our reinsurance relates to the disposition of our long-term care and other closed blocks of business several years ago. We retain primary liability as a direct insurer for all risks ceded to reinsurers. Reinsurance recoverables by reinsurer

		Reins	urance
		recove	erable
	S&P financial strength rating	on pai	id and
		unpai	d
		benefi	its
		For th	ie
		years	ended
		Decer	nber
		31,	
(\$ in millions)		2018	2017
Mutual of Omaha Insurance	AA-	\$ 71	\$ 68
General Re Life Corporation	AA+	19	19
Other (1)		5	5
Total		\$ 95	\$ 92

⁽¹⁾ As of both December 31, 2018 and 2017, the other category includes \$4 million of recoverables due from reinsurers rated A- or better by S&P.

We continuously monitor the creditworthiness of reinsurers in order to determine our risk of recoverability on an individual and aggregate basis, and a provision for uncollectible reinsurance is recorded if needed. No amounts have been deemed unrecoverable in the three-years ended December 31, 2018.

We enter into certain intercompany reinsurance transactions for the Allstate Benefits operations in order to maintain underwriting control and manage insurance risk among various legal entities. These reinsurance agreements have been approved by the appropriate regulatory authorities. All significant intercompany transactions have been eliminated in consolidation.

Allstate Annuities 2018 Form 10-K

Allstate Annuities Segment

Allstate Annuities consists primarily of deferred fixed annuities and immediate fixed annuities (including standard and sub-standard structured settlements). In 2018, Allstate Annuities represented 2.4% of total revenue, 0.2% of total PIF and 4.6% of total adjusted net income. We exited the continuing sale of annuities over an eight year period from 2006 to 2014, reflecting our expectations of declining returns. This segment is in run-off, and we manage it with a focus on increasing economic value through our investment strategy. For additional information on our strategy and outlook, see Part I, Item 1. Business - Strategy and Segment Information.

For the years ended

Summarized financial information

		Por the years ended December 31,			
(\$ in millions)	2018	2017	2016		
Revenues	_010	2017	2010		
Contract charges	\$15	\$14	\$14		
Net investment income		1,305	1,181		
Realized capital gains and losses	-) 44	(38)	
Total revenues	945	1,363	1,157		
Costs and expenses		=			
Contract benefits	•) (606)	
Interest credited to contractholder funds	•	, ,) (405)	
Amortization of DAC) (7)	
Operating costs and expenses	-) (32)	
Total costs and expenses	(942) (1,009) (1,050)	
Gain on disposition of operations	6	6	5		
Income tax benefit (expense)	66	58	(36)	
Net income applicable to common shareholders	\$75	\$418	\$76		
Adjusted net income	\$130	\$204	\$101		
Realized capital gains and losses, after-tax) 28	(26	`	
Valuation changes on embedded derivatives not hedged, after-tax	3) 20	(20)	
Gain on disposition of operations, after-tax	4	4	3	,	
Tax Legislation benefit	4 69	182	3		
Net income applicable to common shareholders	\$75	\$418			
Net income applicable to common shareholders	\$13	\$410	\$ 70		
Reserve for life-contingent contract benefits as of December 31	\$8,524	\$8,934	\$8,721		
Contractholder funds as of December 31	\$9,817	\$10,936	\$11,91	5	
Policies in force as of December 31 (in thousands)					
Deferred annuities	127	142	156		
Immediate annuities	84	89	95		
Total	211	231	251		

Net income applicable to common shareholders was \$75 million, \$418 million and \$76 million in 2018, 2017 and 2016, respectively. 2018 and 2017 results include a tax benefit of \$69 million and \$182 million, respectively, related to the Tax Legislation.

Adjusted net income was \$130 million in 2018 compared to \$204 million in 2017. The decrease was primarily due to lower net investment income, driven by performance-based investment results and decreased average investment

balances, partially offset by a lower effective tax rate from the Tax Legislation, decreased interest credited to contractholder funds and lower contract benefits.

Adjusted net income was \$204 million in 2017 compared to \$101 million in 2016. The increase was primarily due to higher net investment income, lower

interest credited to contractholder funds and lower contract benefits.

Net investment income decreased 16.0% or \$209 million in 2018 compared to 2017, primarily due to lower performance-based investment results, mainly from limited partnerships, and lower average investment balances. Net investment income increased 10.5% or \$124 million in 2017 compared to 2016, benefiting from strong performance-based investment results, primarily from limited partnerships, partially offset by lower average investment balances as a result of a decrease in contractholder funds.

The investment portfolio supporting immediate annuities is managed to ensure the assets match the characteristics of the liabilities and provide the long-term returns needed to support this business. To better match the long-term nature of our immediate

2018 Form 10-K Allstate Annuities

annuities, we use performance-based investments in which we have ownership interests, and a greater proportion of return is derived from idiosyncratic asset or operating performance. Performance-based income can vary significantly between periods and is influenced by economic conditions, equity market performance, comparable public company earnings multiples, capitalization rates, operating performance of the underlying investments and the timing of asset sales.

Net realized capital losses in 2018 primarily related to decreased valuation of equity investments and losses on sales of fixed income securities. Net realized capital gains in 2017 primarily related to net gains on sales, as well as gains from valuation changes in public securities held in certain limited partnerships, partially offset by impairment write-downs and derivative valuation losses. Net realized capital losses in 2016 primarily related to impairment write-downs, partially offset by net gains on sales in connection with ongoing portfolio management. Contract benefits decreased 4.2% or \$25 million in 2018 compared to 2017, primarily due to immediate annuity mortality experience that was favorable in comparison to the prior year. Contract benefits decreased 2.0% or \$12 million in 2017 compared to 2016, primarily due to immediate annuity mortality experience. Our annual review of assumptions in 2018 resulted in a \$2 million increase in reserves primarily for guaranteed withdrawal benefits on equity-indexed annuities due to higher projected guaranteed benefits. In 2017, the review resulted in a \$1 million increase in reserves.

As of December 31, 2018 and 2017, our premium deficiency and profits followed by losses evaluations

for our immediate annuities with life contingencies concluded that no adjustments were required to be recognized. For further detail on these evaluations, see Reserve for life-contingent contract benefits estimation in the Application of Critical Accounting Estimates section.

Benefit spread reflects our mortality results using the difference between contract charges earned and contract benefits excluding the portion related to the implied interest on immediate annuities with life contingencies. This implied interest totaled \$492 million, \$501 million and \$511 million in 2018, 2017 and 2016, respectively. Total benefit spread was \$(68) million, \$(84) million and \$(86) million in 2018, 2017 and 2016, respectively.

Interest credited to contractholder funds decreased 10.5% or \$39 million in 2018 compared to 2017 and decreased 7.9% or \$32 million in 2017 compared to 2016, primarily due to lower average contractholder funds. Valuation changes on derivatives embedded in equity-indexed annuity contracts that are not hedged decreased interest credited to contractholder funds by \$3 million in 2018 compared to increases of \$1 million in 2017 and \$3 million in 2016. Investment spread reflects the difference between net investment income and the sum of interest credited to contractholder funds and the implied interest on immediate annuities with life contingencies, which is included as a component of contract benefits and is used to analyze the impact of net investment income and interest credited to contractholders on net income.

Investment spread

	December 31,
(\$ in millions)	2018 2017 2016
Investment spread before valuation changes on embedded derivatives not hedged	\$267 \$432 \$268
Valuation changes on derivatives embedded in equity-indexed annuity contracts that are not	3 (1)(3)
hedged	3 (1) (3)
Total investment spread	\$270 \$431 \$265

Investment spread before valuation changes on embedded derivatives not hedged decreased 38.2% to \$267 million in 2018 compared to \$432 million in 2017, primarily due to lower investment income, mainly from limited partnership interests, partially offset by lower credited interest.

Investment spread before valuation changes on embedded derivatives not hedged increased 61.2% to \$432 million in 2017 compared to \$268 million in 2016, primarily due to higher net investment income and lower credited interest.

For the years ended

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To further analyze investment spreads, the following table summarizes the weighted average investment yield on assets supporting product liabilities, interest crediting rates and investment spreads. Investment spreads may vary significantly between periods due to the variability in investment income, particularly for immediate fixed annuities where the investment portfolio includes performance-based investments.

Analysis of investment spread

	Waig	hted as	araga	Weigl	nted av	erage	Weigl	hted av	erage
	Weighted average investment yield		intere	st cred	iting	invest	investment		
			rate			spread	ds		
	2018	2017	2016	2018	2017	2016	2018	2017	2016
Deferred fixed annuities	4.1%	4.2%	4.1%	2.8%	2.8%	2.8%	1.3%	1.4%	1.3%
Immediate fixed annuities with and without life	6.4	8.0	6.5	6.0	6.0	5.9	0.4	2.0	0.6
contingencies									

The following table summarizes the weighted average guaranteed crediting rates and weighted average current crediting rates as of December 31, 2018 for certain fixed annuities where management has the ability to change the crediting rate, subject to a contractual minimum. Other products, including equity-indexed, variable and immediate annuities totaling \$4.37 billion of contractholder funds, have been excluded from the analysis because management does not have the ability to change the crediting rate or the minimum crediting rate is not considered meaningful in this context.

Weighted average guaranteed crediting rates and weighted average current crediting rates

(\$ in millions)	Weighted average guaranteed crediting rates	Weighted average current crediting rates	Contractholder funds
Annuities with annual crediting rate resets	3.14 %	3.14 %	\$ 4,585
Annuities with multi-year rate guarantees (1):			
Resettable in next 12 months	1.27	3.23	198
Resettable after 12 months	2.14	2.67	660

⁽¹⁾ These contracts include interest rate guarantee periods which are typically 5, 6 or 10 years.

Operating costs and expenses decreased 8.6% or \$3 million in 2018 compared to 2017, primarily due to a reduction in premium tax accruals and lower employee-related costs.

Operating costs and expenses increased 9.4% or \$3 million in 2017 compared to 2016, primarily due to higher guaranty fund expenses. 2016 included a reduction in the accrual for anticipated guaranty fund expenses. Analysis of reserves and contractholder funds

Product liabilities

	For the years ended		
	Decemb	ber 31,	
(\$ in millions)	2018	2017	2016
Immediate fixed annuities with life contingencies			
Sub-standard structured settlements and group pension terminations (1)	\$4,990	\$5,284	\$5,029
Standard structured settlements and SPIA (2)	3,425	3,565	3,592
Other	109	85	100
Reserve for life-contingent contract benefits	\$8,524	\$8,934	\$8,721
Deferred fixed annuities	\$7,156	\$8,128	\$8,921

Immediate fixed annuities without life contingencies2,5252,7002,874Other136108120Contractholder funds\$9,817\$10,936\$11,915

Comprises structured settlement annuities for annuitants with severe injuries or other health impairments which

- (1) increased their expected mortality rate at the time the annuity was issued ("sub-standard structured settlements") and group annuity contracts issued to sponsors of terminated pension plans.
- (2) Comprises structured settlement annuities for annuitants with standard life expectancy ("standard structured settlements") and single premium immediate annuities ("SPIA") with life contingencies.

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Contractholder funds represent interest-bearing liabilities arising from the sale of products such as fixed annuities and funding agreements. The balance of contractholder funds is equal to the cumulative deposits received and interest credited to the contractholder less cumulative contract benefits, surrenders, withdrawals, maturities and contract charges for mortality or administrative expenses.

Changes in contractholder funds

	For the years ended December			
	31,			
(\$ in millions)	2018	2017	2016	
Contractholder funds, beginning balance	\$10,936	\$11,915	\$13,070	
Deposits	15	28	42	
Interest credited	331	370	403	
Benefits, withdrawals, maturities and other adjustments				
Benefits	(587	(638)	(705)	
Surrenders and partial withdrawals	(854	(723)	(780)	
Maturities of and interest payments on institutional products	_	_	(86)	
Contract charges	(9	(9)	(9)	
Net transfers from separate accounts	_	1	1	
Other adjustments (1)	(15) (8	(21)	
Total benefits, withdrawals, maturities and other adjustments	(1,465	(1,377)	(1,600)	
Contractholder funds, ending balance	\$9,817	\$10,936	\$11,915	

The table above illustrates the changes in contractholder funds, which are presented gross of reinsurance recoverables on the Consolidated Statements of Financial Position. The table above is intended to supplement our

Contractholder funds decreased 10.2% and 8.2% in 2018 and 2017, respectively, primarily due to the continued runoff of our deferred fixed annuity business. We discontinued the sale of annuities but still accept additional deposits on existing contracts.

Surrenders and partial withdrawals increased 18.1% to \$854 million in 2018 from \$723 million in 2017. Surrenders and partial withdrawals decreased 7.3% to \$723 million in 2017 from \$780 million in 2016. 2018 had elevated surrenders on fixed annuities resulting from an increased number of contracts reaching the 30-45 day period (typically at their 5, 7 or 10 year anniversary) during which there is no surrender charge. The surrender and partial withdrawal rate on deferred fixed annuities, based on the beginning of year contractholder funds, was 11.4% in 2018 compared to 8.7% in 2017 and 8.6% in 2016.

Maturities of and interest payments on institutional products included an \$85 million maturity in 2016. There were no institutional products outstanding as of December 31, 2018, 2017 or 2016.

Allstate Annuities reinsurance ceded

We ceded substantially all of the risk associated with our variable annuity business to Prudential Insurance Company of America ("Prudential"). Our reinsurance recoverables from Prudential totaled \$1.36 billion and \$1.35 billion as of December 31, 2018 and 2017, respectively. We also have reinsurance recoverables from other reinsurers of \$17 million as of both December 31, 2018 and 2017.

We retain primary liability as a direct insurer for all risks ceded to reinsurers. We continuously monitor the creditworthiness of reinsurers in order to determine our risk of recoverability on an individual and aggregate basis, and a provision for uncollectible reinsurance is recorded if needed. No amounts have been deemed unrecoverable in the three-years ended December 31, 2018.

⁽¹⁾ discussion and analysis of revenues, which are presented net of reinsurance on the Consolidated Statements of Operations. As a result, the net change in contractholder funds associated with products reinsured is reflected as a component of the other adjustments line.

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Investments

Overview and strategy The return on our investment portfolios is an important component of our ability to offer good value to customers, fund business improvements and create value for shareholders. Investment portfolios are held for Property-Liability, Service Businesses, Allstate Life, Allstate Benefits, Allstate Annuities, and Corporate and Other operations. While taking into consideration the investment portfolio in aggregate, management of the underlying portfolios is significantly influenced by the nature of each respective business and its corresponding liability profile. For each business, we identify a strategic asset allocation which considers both the nature of the liabilities and the risk and return characteristics of the various asset classes in which we invest. This allocation is informed by our long-term and market expectations, as well as other considerations such as risk appetite, portfolio diversification, duration, desired liquidity and capital. Within appropriate ranges relative to strategic allocations, tactical allocations are made in consideration of prevailing and potential future market conditions. We manage risks that involve uncertainty related to interest rates, credit spreads, equity returns and currency exchange rates.

The Property-Liability portfolio emphasizes protection of principal and consistent income generation, within a total return framework. This approach has produced competitive returns over the long term and is designed to ensure financial strength and stability for paying claims, while maximizing economic value and surplus growth. Products, such as auto insurance and discontinued lines and coverages, with lower liquidity needs and capital create capacity to invest in less liquid higher yielding fixed income securities, performance-based investments such as limited partnerships, and equity securities. Products with higher liquidity needs, such as homeowners insurance, are invested primarily in high quality liquid fixed income securities.

The Service Businesses portfolio is focused on protection of principal and consistent income generation, within a total return framework. The portfolio is largely comprised of fixed income securities with a lesser allocation to equity securities and short-term investments.

The Allstate Life portfolio is comprised of assets chosen to generate returns to support corresponding liabilities within an asset-liability framework that targets an appropriate return on capital. This portfolio is well diversified and primarily consists of longer duration fixed income securities and commercial mortgage loans.

The Allstate Benefits portfolio is focused on generating an appropriate return on capital. The portfolio is largely comprised of fixed income securities and commercial mortgage loans with a small allocation to equity securities. The Allstate Annuities portfolio is managed to ensure the assets match the characteristics of the

liabilities. For longer-term immediate annuity liabilities, we invest primarily in performance-based investments such as limited partnerships and equity securities. For shorter-term annuity liabilities, we invest primarily in fixed income securities and commercial mortgage loans with maturity profiles aligned with liability cash flow requirements. The Corporate and Other portfolio balances liquidity needs related to the corporate capital structure with the pursuit of returns

Within each segment, we utilize two primary strategies to manage risks and returns and to position our portfolio to take advantage of market opportunities while attempting to mitigate adverse effects. As strategies and market conditions evolve, the asset allocation may change or assets may be moved between strategies.

Market-based strategies include investments primarily in public fixed income and equity securities. Market-based core seeks to deliver predictable earnings aligned to business needs and returns consistent with the markets in which we invest. Private fixed income assets, such as commercial mortgages, bank loans and privately placed debt that provide liquidity premiums are also included in this category. Market-based active seeks to outperform within the public markets through tactical positioning and by taking advantage of short-term opportunities. This category may generate results that meaningfully deviate from those achieved by market indices, both favorably and unfavorably. Performance-based strategy seeks to deliver attractive risk-adjusted returns and supplement market risk with idiosyncratic risk. Returns are impacted by a variety of factors including general macroeconomic and public market

conditions as public benchmarks are often used in the valuation of underlying investments. Variability in earnings will also result from the performance of the underlying assets or business and the timing of sales of those investments. Earnings from the sales of investments may be recorded as net investment income or realized capital gains and losses.

The portfolio, which primarily includes private equity and real estate with a majority being limited partnerships, is diversified across a number of characteristics, including managers or partners, vintage years, strategies, geographies (including international) and industry sectors or property types. These investments are generally illiquid in nature, often require specialized expertise, typically involve a third party manager, and often enhance returns and income through transformation at the company or property level. A portion of these investments seek returns in markets or asset classes that are dislocated or special situations, primarily in private markets.

In December 2018, the Federal Open Market Committee ("FOMC") tightened monetary policy by setting the new target range for the federal funds rate

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at 2-1/4 percent to 2-1/2 percent and maintained their inflation target of 2 percent. The FOMC noted that some further gradual increases in the federal funds rate will be consistent with sustained expansion of economic activity, strong labor market conditions, and inflation near the target of 2 percent. We plan to focus on the following priorities:

Enhance investment portfolio returns through use of a dynamic capital allocation framework and focus on tax efficiency.

Leverage our broad capabilities to shift the portfolio mix to earn higher risk-adjusted returns on capital. Invest for the specific needs and characteristics of Allstate's businesses, including its corresponding liability profile. We continue to increase performance-based investments in our Property-Liability portfolio, consistent with our ongoing strategy to have a greater

proportion of return derived from idiosyncratic asset or operating performance.

Invested assets and market-based income are expected to decline with reductions in contractholder funds and income related to performance-based investments will result in variability of earnings for the Allstate Annuities segment. Adopted Recognition and Measurement of Financial Assets and Financial Liabilities Beginning January 1, 2018, equity securities are reported at fair value with changes in fair value recognized in realized capital gains and losses. Limited partnerships previously reported using the cost method are now reported at fair value with changes in fair value recognized in net investment income.

See Note 2 of the consolidated financial statements.

Portfolio composition and strategy by reporting segment (1)

	As of Dece	ember 31, 20	18				
(\$ in millions)	Property-L	Service iability Businesses	Allstate Life	Allstate Benefits	Allstate Annuities	Corporate and Other	Total
Fixed income securities (2)	\$32,143	\$ 981	\$7,463	\$1,224	\$14,242	\$1,117	\$57,170
Equity securities (3)	3,488	131	40	51	1,299	27	5,036
Mortgage loans	390		1,867	205	2,208		4,670
Limited partnership interests	4,222		_	_	3,283		7,505
Short-term investments (4)	1,759	91	187	27	638	325	3,027
Other	1,632		1,252	302	666		3,852
Total	\$43,634	\$ 1,203	\$10,809	\$1,809	\$22,336	\$1,469	\$81,260
Percent to total	53.7 %	1.5 %	13.3 %	2.2 %	27.5 %	1.8 %	100.0 %
Market-based core	\$30,689	\$ 1,203	\$10,809	\$1,809	\$17,548	\$1,469	\$63,527
Market-based active	8,451	_			1,245		9,696
Performance-based	4,494				3,543		8,037
Total	\$43,634	\$ 1,203	\$10,809	\$1,809	\$22,336	\$1,469	\$81,260

⁽¹⁾ Balances reflect the elimination of related party investments between segments.

Fixed income securities are carried at fair value. Amortized cost basis for these securities was \$32.44 billion, \$984

Investments totaled \$81.26 billion as of December 31, 2018, decreasing from \$82.80 billion as of December 31, 2017, primarily due to common share repurchases, lower fixed income and equity valuations, issuances and redemptions of debt and preferred stock, net reductions in contractholder funds, dividends paid to shareholders and the acquisition of InfoArmor, partially offset by positive operating cash flows.

⁽²⁾ million, \$7.36 billion, \$1.24 billion, \$14.00 billion, \$1.11 billion and \$57.13 billion for Property-Liability, Service Businesses, Allstate Life, Allstate Benefits, Allstate Annuities, Corporate and Other, and in Total, respectively. Equity securities are carried at fair value. The fair value of equity securities held as of December 31, 2018, was

^{(3) \$547} million in excess of cost. These net gains were primarily concentrated in the consumer goods, technology and banking sectors. Beginning January 1, 2018, the periodic changes in fair value are reflected in realized capital gains and losses.

⁽⁴⁾ Short-term investments are carried at fair value.

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Portfolio composition by investment strategy

As of Dec	ember 31, 2	2018				
Market-bacore	as M arket-ba active	ised	Performance-b	ased	Total	
\$48,903	\$ 8,193		\$ 74		\$57,17	0
4,253	522		261		5,036	
4,670			_		4,670	
489	158		6,858		7,505	
2,346	681		_		3,027	
2,866	142		844		3,852	
\$63,527	\$ 9,696		\$ 8,037		\$81,26	0
78.2	6 11.9	%	9.9	%	100.0	%
\$149	\$ (112)	\$ (1)	\$36	
(3)			_		(3)
\$146	\$ (112)	\$ (1)	\$33	
	Market-bacore \$48,903 4,253 4,670 489 2,346 2,866 \$63,527 78.2 % \$149 (3)	Market-baseMarket-based active \$48,903 \$8,193 4,253 522 4,670 — 489 158 2,346 681 2,866 142 \$63,527 \$9,696 78.2 % 11.9 \$149 \$ (112 (3) —	Market-based core active \$48,903 \$ 8,193 4,253 522 4,670 — 489 158 2,346 681 2,866 142 \$63,527 \$ 9,696 78.2 % 11.9 % \$149 \$ (112) (3) —	core active \$48,903 \$ 8,193 \$ 74 4,253 522 261 4,670 — — 489 158 6,858 2,346 681 — 2,866 142 844 \$63,527 \$ 9,696 \$ 8,037 78.2 % 11.9 % 9.9 \$149 \$ (112) \$ (1 (3) — —	Market-based core active \$48,903 \$ 8,193 \$ 74 4,253 522 261 4,670 — — 489 158 6,858 2,346 681 — 2,866 142 844 \$63,527 \$ 9,696 \$ 8,037 78.2 % 11.9 % 9.9 % \$149 \$ (112) \$ (1) (3) — —	Market-based core active \$48,903 \$ 8,193 \$ 74 \$57,17 4,253 522 261 5,036 4,670 — 4,670 489 158 6,858 7,505 2,346 681 — 3,027 2,866 142 844 3,852 \$63,527 \$ 9,696 \$ 8,037 \$81,26 78.2 % 11.9 % 9.9 % 100.0 \$149 \$ (112) \$ (1) \$36 (3) — (3 (3

During 2018, strategic actions focused on optimizing portfolio yield, return and risk in the rising interest rate environment.

We continued to increase performance-based investments in the Property-Liability portfolio.

We modestly increased the maturity profile of fixed income securities in our Property-Liability portfolio at a duration of 4.1 years, while maintaining duration at 5.6 and 4.2 years for the Allstate Life and Allstate Annuities portfolios, respectively.

In the Allstate Annuities portfolio, invested assets and market-based income declined with reductions in contractholder funds. Performance-based investments and equity securities will continue to be allocated primarily to the longer-term immediate annuity liabilities to reduce the risk that investment returns are below levels required to meet their funding needs while shorter-term annuity liabilities will be invested in market-based investments. Fixed income securities by type

	Fair value as of		
	Decembe	er 31,	
(\$ in millions)	2018	2017	
U.S. government and agencies	\$5,517	\$3,616	
Municipal	9,169	8,328	
Corporate	40,136	44,026	
Foreign government	747	1,021	
Asset-backed securities ("ABS")	1,045	1,272	
Residential mortgage-backed securities ("RMBS")	464	578	
Commercial mortgage-backed securities ("CMBS")70	128	
Redeemable preferred stock	22	23	
Total fixed income securities	\$57,170	\$58,992	

Fixed income securities are rated by third party credit rating agencies and/or are internally rated. As of December 31, 2018, 90.8% of the consolidated fixed income securities portfolio was rated investment grade, which is defined as a security having a rating of Aaa, Aa, A or Baa from Moody's, a rating of AAA, AA, A or BBB from S&P, a comparable rating from another nationally recognized rating agency, or a comparable internal rating if an externally provided rating is not available. Credit ratings below these designations are

considered low credit quality or below investment grade, which includes high yield bonds. Market prices for certain securities may have credit spreads which imply higher or lower credit quality than the current third party rating. Our initial investment decisions and ongoing monitoring procedures for fixed income securities are based on a thorough due diligence process which includes, but is not limited to, an assessment of the credit quality, sector, structure, and liquidity risks of each issue.

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Fair value and unrealized net capital gains (losses) for fixed income securities by credit quality

As of December 31, 2018								
Investme	esimeni grade		Below grade			Total		
Fair	Unreali	zec	d Fair	Unrealia	zec	l Fair	Unreal	ized
value	gain/(lo	ss)) value	gain/(lo	ss)	value	gain/(le	oss)
\$5,517	\$ 131		\$ —	\$ —		\$5,517	\$ 131	
6,969	6		31	_		7,000	6	
2,133	201		36	(1)	2,169	200	
26,435	(160)	2,835	(136)	29,270	(296)
8,966	(10)	1,900	(94)	10,866	(104)
738	8		9			747	8	
246	(3)	23			269	(3)
765			11	(1)	776	(1)
703			11	(1	,	770	(1	,
81	1					81	1	
35	1		348	85		383	86	
30			40	7		70	7	
22	1					22	1	
\$51,937	\$ 176		\$5,233	\$ (140)	\$57,170	\$ 36	
	Investment Fair value \$5,517 6,969 2,133 26,435 8,966 738 246 765 81 35 30 22	Investment grade Fair Unreali value gain/(lo \$5,517 \$ 131 6,969 6 2,133 201 26,435 (160 8,966 (10 738 8 246 (3 765 — 81 1 35 1 30 — 22 1	Investment grade Fair Unrealized yalue gain/(loss) \$5,517 \$ 131 6,969 6 2,133 201 26,435 (160) 8,966 (10) 738 8 246 (3) 765 — 81 1 35 1 30 — 22 1	Investment grade Fair Unrealized Fair value gain/(loss) value \$5,517 \$ 131 \$— 6,969 6 31 2,133 201 36 26,435 (160) 2,835 8,966 (10) 1,900 738 8 9 246 (3) 23 765 — 11 81 1 — 35 1 348 30 — 40 22 1 —	Investment grade Below investment grade Fair Unrealized Fair Unrealized Invalue gain/(loss) value gain/(loss) \$5,517 \$ 131 \$ — 6,969 6 31 — 2,133 201 36 (1 26,435 (160) 2,835 (136 8,966 (10) 1,900 (94 738 8 9 — 246 (3) 23 — 765 — 11 (1 81 1 — — 35 1 348 85 30 — 40 7 22 1 — —	Investment grade Fair Unrealized Fair Unrealized value gain/(loss) value gain/(loss) \$5,517 \$ 131 \$— \$— 6,969 6 31 — 2,133 201 36 (1) 26,435 (160) 2,835 (136) 8,966 (10) 1,900 (94) 738 8 9 — 246 (3) 23 — 765 — 11 (1) 81 1 — — 35 1 348 85 30 — 40 7 22 1 — —	Investment grade Below investment grade Total grade Fair value gain/(loss) value \$5,517 \$ 131 \$ — \$5,517 \$ 5,517 \$ 131 \$ — \$ \$5,517 \$ \$ 5,517 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Investment grade

Municipal bonds, including tax exempt and taxable securities, totaled \$9.17 billion as of December 31, 2018 with 99.3% rated investment grade and an unrealized net capital gain of \$206 million. The municipal bond portfolio includes general obligations of state and local issuers and revenue bonds (including pre-refunded bonds, which are bonds for which an irrevocable trust has been established to fund the remaining payments of principal and interest). Our practice for acquiring and monitoring municipal bonds is predominantly based on the underlying credit quality of the primary obligor. We currently rely on the primary obligor to pay all contractual cash flows and are not relying on bond insurers for payments. As a result of downgrades in the insurers' credit ratings, the ratings of the insured municipal bonds generally reflect the underlying ratings of the primary obligor.

Corporate bonds, including publicly traded and privately placed, totaled \$40.14 billion as of December 31, 2018, with 88.2% rated investment grade and an unrealized net capital loss of \$400 million. Privately placed securities primarily consist of corporate issued senior debt securities that are directly negotiated with the borrower or are in unregistered form.

Our \$10.87 billion portfolio of privately placed securities is diversified by issuer, industry sector and country. The portfolio is made up of 448 issuers. Privately placed corporate obligations may contain structural security features such as financial covenants and call protections that provide investors greater protection against credit deterioration, reinvestment risk or fluctuations in interest rates than those typically found in publicly registered debt securities. Additionally, investments in these securities are made

after due diligence of the issuer, typically including discussions with senior management and on-site visits to company facilities. Ongoing monitoring includes direct periodic dialog with senior management of the issuer and continuous monitoring of operating performance and financial position. Every issue not rated by an independent rating agency is internally rated with a formal rating affirmation at least once a year.

Our corporate bonds portfolio includes \$4.74 billion of below investment grade bonds, \$1.90 billion of which are privately placed. These securities are diversified by issuer and industry sector. The below investment grade corporate bonds portfolio is made up of 287 issuers. We employ fundamental analyses of issuers and sectors along with macro

and asset class views to identify investment opportunities. This results in a portfolio with broad exposure to the high yield market with an emphasis on idiosyncratic positions reflective of our views of market conditions and opportunities.

Foreign government securities totaled \$747 million as of December 31, 2018, with 98.8% rated investment grade and an unrealized net capital gain of \$8 million. Of these securities, 78.2% are in Canadian governmental and provincial securities (73.8% of which are held by our Canadian companies), 19.9% are backed by the U.S. government and the remaining 1.9% are highly diversified in other foreign governments.

ABS, RMBS and CMBS are structured securities that are primarily collateralized by consumer or corporate borrowings and residential and commercial real estate loans. The cash flows from the underlying collateral paid to the securitization trust are generally applied in a pre-determined order and are designed so that each security issued by the trust, typically referred to as a "class", qualifies for a specific original rating.

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For example, the "senior" portion or "top" of the capital structure, or rating class, which would originally qualify for a rating of Aaa typically has priority in receiving principal repayments on the underlying collateral and retains this priority until the class is paid in full. In a sequential structure, underlying collateral principal repayments are directed to the most senior rated Aaa class in the structure until paid in full, after which principal repayments are directed to the next most senior Aaa class in the structure until it is paid in full. Senior Aaa classes generally share any losses from the underlying collateral on a pro-rata basis after losses are absorbed by classes with lower original ratings. The payment priority and class subordination included in these securities serves as credit enhancement for holders of the senior or top portions of the structures. These securities continue to retain the payment priority features that existed at the origination of the securitization trust. Other forms of credit enhancement may include structural features embedded in the securitization trust, such as overcollateralization, excess spread and bond insurance. The underlying collateral may contain fixed interest rates, variable interest rates (such as adjustable rate mortgages), or both fixed and variable rate features.

ABS, including CDO and Consumer and other ABS, totaled \$1.05 billion as of December 31, 2018, with 96.7% rated investment grade and an unrealized net capital loss of \$4 million. Credit risk is managed by monitoring the performance of the underlying collateral. Many of the securities in the ABS portfolio have credit enhancement with features such as overcollateralization, subordinated structures, reserve funds, guarantees and/or insurance. CDO totaled \$269 million as of December 31, 2018, with 91.4% rated investment grade and an unrealized net capital loss of \$3 million. CDO consist of obligations collateralized by cash flow CDO, which are structures collateralized primarily by below investment grade senior secured corporate loans.

Consumer and other ABS totaled \$776 million as of December 31, 2018, with 98.6% rated investment grade. Consumer and other ABS consists of \$264 million of consumer auto, \$215 million of credit card and \$297

million of other ABS with unrealized net capital losses of \$1 million, \$1 million and an unrealized net capital gain of \$1 million, respectively.

RMBS totaled \$464 million as of December 31, 2018, with 25.0% rated investment grade and an unrealized net capital gain of \$87 million. The RMBS portfolio is subject to interest rate risk, but unlike other fixed income securities, is additionally subject to prepayment risk from the underlying residential mortgage loans. RMBS consists of a U.S. Agency portfolio having collateral issued or guaranteed by U.S. government agencies and a non-agency portfolio consisting of securities collateralized by Prime, Alt-A and Subprime loans. The non-agency portfolio totaled \$383 million as of December 31, 2018, with 9.1% rated investment grade and an unrealized net capital gain of \$86 million.

CMBS totaled \$70 million as of December 31, 2018, with 42.9% rated investment grade and an unrealized net capital gain of \$7 million. The CMBS investments are primarily traditional conduit transactions collateralized by commercial mortgage loans, broadly diversified across property types and geographical area.

Equity securities primarily include common stocks, exchange traded and mutual funds, non-redeemable preferred stocks and real estate investment trust equity investments. Certain exchange traded and mutual funds have fixed income securities as their underlying investments. The equity securities portfolio was \$5.04 billion as of December 31, 2018.

Mortgage loans, which are primarily held in the life and annuity portfolios, totaled \$4.67 billion as of December 31, 2018 and primarily comprise loans secured by first mortgages on developed commercial real estate. Key considerations used to manage our exposure include property type and geographic diversification. For further detail on our mortgage loan portfolio, see Note 5 of the consolidated financial statements.

Limited partnership interests include interests in private equity funds, real estate funds and other funds.

Carrying value and other information for limited partnership interests

As of December 31, 2018
(\$ in millions) Limited Number Number of Largest partners bfp individual exposure to

	interest	smanagers	investments	single
				investment
Private equity	\$5,724	145	287	\$ 187
Real estate	1,134	38	78	109
Other	647	11	12	316
Total	\$7,505	194	377	

Due to the adoption of the recognition and measurement accounting standard, limited partnerships previously reported using the cost method are now reported at fair value. See Note 2 of the consolidated financial statements.

Short-term investments totaled \$3.03 billion as of December 31, 2018, which includes securities lending collateral of \$1.19 billion.

Other investments primarily comprise \$1.35 billion of bank loans, \$891 million of policy loans, \$791 million of real estate, \$620 million of agent loans (loans issued

⁽²⁾ We have commitments to invest in additional limited partnership interests totaling \$3.03 billion.

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to exclusive Allstate agents) and \$117 million of derivatives as of December 31, 2018. For further detail on our use of derivatives, see Note 7 of the consolidated financial statements.

Unrealized net capital gains totaled \$33 million as of December 31, 2018 compared to \$2.63 billion as of December 31, 2017.

Unrealized net capital gains (losses)

	As of	
	Decem	iber 31,
(\$ in millions)	2018	2017
U.S. government and agencies	\$131	\$36
Municipal	206	275
Corporate	(400)	1,030
Foreign government	8	16
ABS	(4)	6
RMBS	87	98
CMBS	7	4
Redeemable preferred stock	1	2
Fixed income securities	36	1,467
Equity securities (1)		1,160
Derivatives	(3)	(1)
Equity method of accounting ("EMA") limited partnerships	·—	1
Unrealized net capital gains and losses, pre-tax	\$33	\$2,627
5 1 1 1 01 11 1		

Due to the adoption of the recognition and measurement accounting standard, equity securities are reported at fair value with changes in fair value recognized in realized capital gains and losses and are no longer included in the

(1) table above. Upon adoption of the new guidance on January 1, 2018, \$1.16 billion of pre-tax unrealized net capital gains for equity securities were reclassified from accumulated other comprehensive income ("AOCI") to retained income. See Note 2 of the consolidated financial statements.

We have a comprehensive portfolio monitoring process to identify and evaluate each fixed income security that may be other-than-temporarily impaired. The process includes a quarterly review of all securities to identify instances where the fair value of a security compared to its amortized cost is below established thresholds. The process also includes the monitoring of other impairment indicators such as ratings, ratings downgrades and payment defaults. The securities identified, in addition to other securities for which we may have a concern, are evaluated for potential other-than-temporary impairment using all reasonably available information relevant to the collectability or recovery of the security. Inherent in our evaluation of other-than-temporary impairment for these fixed income securities are assumptions and estimates about the financial condition and future earnings potential of the issue or issuer. Some of the factors that may be considered in evaluating whether a decline in fair value is other than temporary are: 1) the financial condition, near-term and long-term prospects of the issue or issuer, including relevant industry specific market conditions and trends, geographic location and

implications of rating agency actions and offering prices; 2) the specific reasons that a security is in an unrealized loss position, including overall market conditions which could affect liquidity; and 3) the length of time and extent to which the fair value has been less than amortized cost or cost. All investments in an unrealized loss position as of December 31, 2018 were included in our portfolio monitoring process for determining whether declines in value were other than temporary.

The unrealized net capital gain for the fixed income portfolio totaled \$36 million, comprised of \$993 million of gross unrealized gains and \$957 million of gross unrealized losses as of December 31, 2018. This is compared to an unrealized net capital gain for the fixed income portfolio totaling \$1.47 billion, comprised of \$1.75 billion of gross unrealized gains and \$283 million of gross unrealized losses as of December 31, 2017. Fixed income valuations decreased primarily due to an increase in risk-free interest rates and wider credit spreads.

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Gross unrealized gains (losses) on fixed income securities by type and sector

	As of December 31, 2018				
(\$ in millions)	Amortize	Gross unrea Gains	Fair value		
Corporate:		Oums	200000		
Consumer goods (cyclical and non-cyclical)	\$12,224	\$78	\$(285)	\$12,017	
Capital goods	4,725	34	, ,	4,643	
Utilities	5,410	208	. ,	5,514	
Banking	3,929	8		3,868	
Energy	2,315	36	(66)		
Communications	2,740	19	(66)		
Technology	2,678	7	(61)		
Financial services	2,403	25	(46)	2,382	
Basic industry	1,970	30	(46)	1,954	
Transportation	1,794	41	(26)	1,809	
Other	348	4	(5)	347	
Total corporate fixed income portfolio	40,536	490	(890)	40,136	
U.S. government and agencies	5,386	137	(6)	5,517	
Municipal	8,963	249	(43)	9,169	
Foreign government	739	13	(5)	747	
ABS	1,049	6	(10)	1,045	
RMBS	377	89	(2)	464	
CMBS	63	8	(1)	70	
Redeemable preferred stock	21	1	_	22	
Total fixed income securities	\$57,134	\$993	\$(957)	\$57,170	

The consumer goods, utilities and capital goods sectors comprise 30%, 14% and 12%, respectively, of the carrying value of our corporate fixed income securities portfolio as of December 31, 2018. The consumer goods, capital goods and utilities sectors had the highest concentration of gross unrealized losses in our corporate fixed income securities portfolio as of December 31, 2018. In general, the gross unrealized losses are related to an increase in market yields, which may include increased risk-free interest rates and/or wider credit spreads since the time of initial

purchase. Similarly, gross unrealized gains reflect a decrease in market yields since the time of initial purchase. As of December 31, 2018, we have not made the decision to sell and it is not more likely than not we will be required to sell fixed income securities with unrealized losses before recovery of the amortized cost basis.

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Net investment income

	For the years ended				
	December 31,				
(\$ in millions)	2018	2017	2016		
Fixed income securities	\$2,077	\$2,078	\$2,060		
Equity securities	170	174	137		
Mortgage loans	217	206	217		
Limited partnership interests (1)	705	889	561		
Short-term investments	73	30	16		
Other	272	236	222		
Investment income, before expense	3,514	3,613	3,213		
Investment expense (2)(3)	(274	(212))(171)		
Net investment income	\$3,240	\$3,401	\$3,042		
Market-based core	\$2,431	\$2,360	\$2,340		
Market-based active	303	301	262		
Performance-based	780	952	611		
Investment income, before expense	\$3,514	\$3,613	\$3,213		

Due to the adoption of the recognition and measurement accounting standard, limited partnerships previously

- (1) reported using the cost method are now reported at fair value with changes in fair value recognized in net investment income.
- Investment expense includes \$71 million, \$40 million and \$36 million of investee level expenses in 2018, 2017 and 2016, respectively, and has increased compared to prior year primarily due to growth in real estate investments. Investee level expenses include depreciation and asset level operating expenses on directly held real estate and other consolidated investments.
- (3) Investment expense includes \$28 million, \$10 million and \$1 million related to the portion of reinvestment income on securities lending collateral paid to the counterparties in 2018, 2017 and 2016, respectively.

Net investment income decreased 4.7% or \$161 million in 2018 compared to 2017, after increasing 11.8% or \$359 million in 2017 compared to 2016. The 2018 decrease was primarily due to lower performance-based results, primarily from limited partnerships, partially offset by higher market-based income. The

2017 increase benefited from strong performance-based results, primarily from limited partnerships, an increase in invested assets and stable market-based yields, partially offset by higher employee-related expenses. Performance-based investment income

	For the years ended		
	December 31,		
(\$ in millions)	2018	2017	2016
Limited partnerships			
Private equity	\$582	\$725	\$455
Real estate	123	164	106
Performance-based - limited partnerships	705	889	561
Non-limited partnerships			
Private equity	9	19	9
Real estate	66	44	41
Performance-based - non-limited partnerships	75	63	50
Total			
Private equity	591	744	464

Real estate 189 208 147 Total performance-based \$780 \$952 \$611

Investee level expenses (1) \$(64) \$(35) \$(32)

The five highest contributing performance-based investments in 2018 and 2017 generated investment income of \$159 million and \$210 million, respectively. Performance-based results and income can vary significantly between periods and are influenced by economic conditions, equity market performance, comparable public company earnings multiples, capitalization rates, operating performance of the underlying investments and the timing of asset sales.

⁽¹⁾ Investee level expenses include depreciation and asset level operating expenses reported in investment expense. Performance-based investment income decreased 18.1% or \$172 million in 2018 compared to an increase of 55.8% or \$341 million in 2017. The 2018 decrease reflects lower asset appreciation and fewer gains on sales of underlying investments held by limited partnerships compared to prior year. The 2017 increase reflects asset appreciation, sales of underlying investments, and the continued growth of our performance-based portfolio.

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Components of realized capital gains (losses) and the related tax effect

	For the	year	
	Deceml	ber 31,	
(\$ in millions)	2018	2017	2016
Impairment write-downs			
Fixed income securities	\$(10)	\$(26)	\$(44)
Equity securities (1)	_	(38)	(125)
Mortgage Loans		(1)	
Limited partnership interests	(3)	(32)	(56)
Other investments	(1)	(5)	(9)
Total impairment write-downs	(14)	(102)	(234)
Change in intent write-downs (1)		(48)	(69)
Net OTTI losses recognized in earnings	(14)	(150)	(303)
Sales (1)	(215)	641	213
Valuation of equity investments (1)	(691)		
Valuation and settlements of derivative instruments	43	(46)	
Realized capital gains and losses, pre-tax	(877)	445	(90)
Income tax benefit (expense)	189	(147)	34
Realized capital gains and losses, after-tax	\$(688)	\$298	\$(56)
Market-based core	\$(794)	\$309	\$(40)
Market-based active	(152)	177	21
Performance-based	69	(41)	(71)
Realized capital gains and losses, pre-tax	\$(877)	\$445	\$(90)

Due to the adoption of the recognition and measurement accounting standard, equity securities are reported at fair value with changes in fair value recognized in valuation of equity investments and are no longer included in impairment write-downs, change in intent write-downs and sales.

Realized capital losses in 2018 related primarily to decreased valuation of equity investments and sales of fixed income securities.

Impairment write-downs totaled \$14 million, \$102 million and \$234 million in 2018, 2017 and 2016, respectively. Impairment write-downs on limited partnership interests and fixed income securities in 2018 and 2017 related to investment specific circumstances.

Impairment write-downs on fixed income securities in 2016 were primarily driven by corporate fixed income securities impacted by issuer specific circumstances. Limited partnership write-downs primarily related to investments with exposure to the energy sector, partially offset by the recovery in value of a limited partnership that was previously written-down.

Equity securities were written down in 2017 and 2016 primarily due to the length of time and extent to which fair value was below cost, considering our assessment of the financial condition and prospects of the issuer, including relevant industry conditions and trends. Beginning January 1, 2018, equity securities are reported at fair value with changes in fair value recognized in valuation of equity investments and are no longer included in impairment write-downs.

Sales resulted in \$215 million of net realized capital losses and \$641 million and \$213 million of net realized capital gains in 2018, 2017 and 2016, respectively.

Sales in 2018 related primarily to fixed income securities in connection with ongoing portfolio management.

Sales in 2017 and 2016 included sales of equity and fixed income securities in connection with ongoing portfolio management, as well as gains from valuation changes in public securities held in certain limited partnerships. Sales in first quarter 2016 included \$105 million of losses on \$1.90 billion of sales to reduce our exposure to the energy,

metals and mining sectors.

Valuation of equity investments resulted in losses of \$691 million in 2018, which included \$594 million of declines in the valuation of equity securities and \$97 million of declines in value primarily for certain limited partnerships where the underlying assets are predominately public equity securities.

Valuation and settlements of derivative instruments generated gains of \$43 million in 2018, losses of \$46 million in 2017 and gains and losses that netted to zero in 2016. 2018 primarily comprised gains on foreign currency contracts due to the strengthening of the U.S. dollar and gains on equity options used for risk management due to a decrease in equity indices, partially offset by losses on total return swaps and equity options and futures used for asset replication due to decreases in equity indices. 2017 primarily comprised losses on foreign currency contracts due to the weakening of the U.S. dollar and losses on equity futures used for risk management due to increases in equity indices. 2016 primarily comprised gains on foreign currency contracts due to the strengthening of the U.S. dollar, offset by losses on equity futures used for risk management due to increases in equity indices and losses on credit default swaps due to the tightening of credit spreads on the underlying credit names.

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Realized capital gains (losses) for performance-based investments

	For the years		
	ende	d December	
	31,		
(\$ in millions)	2018	2017 2016	
Impairment write-downs	\$(3)	\$(32) \$(90)	
Change in intent write-downs	_	— (1)	
Net OTTI losses recognized in earnings	(3)	(32) (91)	
Sales	7	15 9	
Valuation of equity investments	36		
Valuation and settlements of derivative instruments	29	(24) 11	
Total performance-based	\$69	\$(41) \$(71)	

Performance based investments generated realized capital gains of \$69 million in 2018 and realized capital losses of \$41 million and \$71 million in 2017 and 2016, respectively. 2018 primarily related to increased valuation on equity investments and gains on valuation and settlements of derivative instruments. 2017 included impairment write-downs on private equity investments and derivative losses related to the hedging of foreign currency risk, partially offset by gains on sale of real estate investments. 2016 included impairment write-downs on certain investments with exposure to the energy sector, partially offset by the recovery in value of a limited partnership that was previously written-down.

Market Risk 2018 Form 10-K

Market Risk

Market risk is the risk that we will incur losses due to adverse changes in interest rates, credit spreads, equity prices, commodity prices or currency exchange rates. Adverse changes to these rates and prices may occur due to changes in fiscal policy, the economic climate, the liquidity of a market or market segment, insolvency or financial distress of key market makers or participants or changes in market perceptions of credit worthiness and/or risk tolerance. Our primary market risk exposures are to changes in interest rates, credit spreads and equity prices. We also have direct and indirect exposure to commodity price changes through our diversified investments in timber, agriculture, infrastructure and energy primarily held in limited partnership interests and consolidated subsidiaries.

The active management of market risk is integral to our results of operations. We may use the following approaches to manage exposure to market risk within defined tolerance ranges: 1) rebalancing existing asset or liability portfolios, 2) changing the type of investments purchased in the future and 3) using derivative instruments to modify the market risk characteristics of existing assets and liabilities or assets expected to be purchased. For a more detailed discussion of our use of derivative instruments, see Note 7 of the consolidated financial statements.

Overview In formulating and implementing guidelines for investing funds, we seek to earn attractive risk-adjusted returns that enhance our ability to offer competitive rates and prices to customers while contributing to stable profits and long-term capital growth. Accordingly, our investment decisions and objectives are informed by the underlying risks and product profiles. Investment policies define the overall framework for managing market and other investment risks, including accountability and controls over risk management activities. Subsidiaries that conduct investment activities follow policies that have been approved by their respective boards of directors and which specify the investment limits and strategies that are appropriate given the liquidity, surplus, product profile and regulatory requirements of the subsidiary. Executive oversight of investment activities is conducted primarily through the subsidiaries' boards of directors and legal entity investment committees, and aggregate portfolio risks are overseen by our board of directors and its committees.

For life and annuity products, the asset-liability management ("ALM") policies further define the overall framework for managing market and investment risks and are approved by the subsidiaries' respective boards of directors. ALM focuses on strategies to enhance yields, mitigate market risks and optimize capital to improve profitability and returns while incorporating future expected cash requirements to repay liabilities. These ALM policies specify limits, ranges and/or targets for investments that best meet business objectives in light of the unique demands and characteristics of the product liabilities and are intended to result in a prudent, methodical and effective adjudication of market risk and return.

We use widely-accepted quantitative and qualitative approaches to measure, monitor and manage market risk. We evaluate our market risk exposure using multiple measures including but not limited to:

- Duration, a measure of the price sensitivity of assets and liabilities to changes in interest rates
- Value-at-risk, a statistical estimate of the probability that the change in fair value of a portfolio will exceed a certain amount over a given time horizon
- Scenario analysis, an estimate of the potential changes in the fair value of a portfolio that could occur under hypothetical market conditions defined by changes to multiple market risk factors: interest rates, credit spreads, equity prices or currency exchange rates
- Sensitivity analysis, an estimate of the potential changes in the fair value of a portfolio that could occur using hypothetical shocks to a market risk factor

In general, we establish investment portfolio asset allocation and market risk limits based upon a combination of duration, value-at-risk, scenario analysis and sensitivity analysis. The asset allocation limits place restrictions on the total funds that may be invested within an asset class. Comprehensive day-to-day management of market risk within defined tolerance ranges occurs as portfolio managers buy and sell within their respective markets based upon the acceptable boundaries established by investment policies. Although we apply a similar overall philosophy to market risk, the underlying business frameworks and the accounting and regulatory environments may differ between our products and therefore affect investment decisions and risk parameters.

Interest rate risk is the risk that we will incur a loss due to adverse changes in interest rates relative to the characteristics of our interest-bearing assets and liabilities. Interest rate risk includes risks related to changes in U.S. Treasury yields and other key risk-free reference yields. This risk arises from many of our primary activities, as we invest substantial funds in interest-sensitive assets and issue interest-sensitive liabilities. Changes in interest rates can have favorable and unfavorable effects on our results. For example, increases in rates can improve investment income, but decrease the fair value of our fixed income securities portfolio and increase policyholder surrenders requiring us to liquidate assets. Decreases in rates could increase the fair value of our fixed income securities portfolio while decreasing investment income due to reinvesting at lower market yields and accelerating pay-downs and prepayments of certain investments.

For our corporate debt, we monitor market interest rates and evaluate refinancing opportunities as maturity dates approach. To mitigate this risk, we ladder the maturity dates of our debt. For our noncumulative perpetual preferred stock, we monitor market dividend rates and evaluate opportunities to redeem or refinance on or after specified dates. For further detail regarding our debt and our preferred stock, see Note 12 of the consolidated financial

2018 Form 10-K Market Risk

statements and the Capital Resources and Liquidity section of this Item.

We manage the interest rate risk in our assets relative to the interest rate risk in our liabilities and our assessment of overall economic and capital risk. One of the measures used to quantify this exposure is duration. The difference in the duration of our assets relative to our liabilities is our duration gap. To calculate the duration gap between assets and liabilities, we project asset and liability cash flows and calculate their net present value using a risk-free market interest rate adjusted for credit quality, sector attributes, liquidity and other specific risks. Duration is calculated by revaluing these cash flows at alternative interest rates and determining the percentage change in aggregate fair value. The cash flows used in this calculation include the expected maturity and repricing characteristics of our derivative financial instruments, all other financial instruments, and certain other items including, unearned premiums, claims and claims expense reserves, annuity liabilities and other interest-sensitive liabilities.

The projections include assumptions (based upon historical market experience and our experience) that reflect the effect of changing interest rates on the prepayment, lapse, leverage and/or option features of instruments, where applicable. The preceding assumptions relate primarily to callable municipal and corporate bonds, fixed rate single and flexible premium deferred annuities, mortgage-backed securities and municipal housing bonds. Additionally, the calculations include assumptions regarding the renewal of property and casualty products.

As of December 31, 2018, the difference between our asset and liability duration was a (1.16) gap compared to a (2.16) gap as of December 31, 2017. The calculation excludes traditional and interest-sensitive life insurance and accident and health insurance products that are not considered financial instruments. A negative duration gap indicates that the fair value of our liabilities is more sensitive to interest rate movements than the fair value of our assets, while a positive duration gap indicates that the fair value of our assets is more sensitive to interest rate movements than the fair value of our liabilities. Due to the relatively short duration of our property and casualty liabilities, primarily related to auto and homeowners claims, the investments generally maintain a positive duration gap between assets and liabilities. In contrast, for our annuity products the duration gap may be positive or negative as the assets and liabilities vary based on the characteristics of the products in-force and investing activity. As of December 31, 2018, property and casualty products had a positive duration gap while annuity products had a negative duration gap.

To reduce the risk that investment returns are below levels required to meet the funding needs of certain liabilities, we are executing our performance-based strategy that supplements market risk with idiosyncratic risk. We are using these

long-term annuity liabilities. Shorter-term annuity liabilities will continue to be invested in market-based investments to generate cash flows that will fund future claims, benefits and expenses, and that will earn stable returns across a wide variety of interest rate and economic scenarios. Performance-based investments and public equity securities are generally not interest-bearing; accordingly, using them to support interest-bearing liabilities contributes toward a negative duration gap.

investments, in addition to public equity securities, to support a portion of our property and casualty products and

Based upon the information and assumptions used in the duration calculation, and market interest rates as of December 31, 2018, we estimate that a 100 basis point immediate, parallel increase in interest rates ("rate shock") would increase the fair value of the assets net of liabilities by \$889 million, compared to an increase of \$1.65 billion as of December 31, 2017, reflecting year to year changes in duration and the amount of assets and liabilities. The selection of a 100 basis point immediate, parallel change in interest rates should not be construed as our prediction of future market events, but only as an illustration of the potential effect of such an event.

The estimate excludes traditional and interest-sensitive life insurance and accident and health insurance products that are not considered financial instruments and the \$11.07 billion of assets supporting them and the associated liabilities. The \$11.07 billion of assets excluded from the calculation increased from \$11.06 billion as of December 31, 2017. Based on assumptions described above, in the event of a 100 basis point immediate increase in interest rates, the assets supporting the excluded products would decrease in value by \$593 million compared to a decrease of \$620 million as of December 31, 2017. To the extent that conditions differ from the assumptions we used in these calculations, duration and rate shock measures could be significantly impacted. Additionally, our calculations assume the current relationship between short-term and long-term interest rates (the term structure of interest rates) will remain constant over time. As a result, these calculations may not fully capture the effect of non-parallel changes in the term structure

of interest rates and/or large changes in interest rates.

Credit spread risk is the risk that we will incur a loss due to adverse changes in credit spreads ("spreads"). Credit spread is the additional yield on fixed income securities and loans above the risk-free rate (typically referenced as the yield on U.S. Treasury securities) that market participants require to compensate them for assuming credit, liquidity and/or prepayment risks. The magnitude of the spread will depend on the likelihood that a particular issuer will default. This risk arises from many of our primary activities, as we invest substantial funds in spread-sensitive fixed income assets. We manage the spread risk in our assets. One of the measures used to quantify this exposure is spread duration. Spread duration measures the price sensitivity of the assets to changes in spreads. For example, if spreads increase 100 basis points, the fair value of an asset exhibiting a

Market Risk 2018 Form 10-K

spread duration of 5 is expected to decrease in value by 5%.

Spread duration is calculated similarly to interest rate duration. As of December 31, 2018, the spread duration was 4.28, compared to 3.99 as of December 31, 2017. Based upon the information and assumptions we use in this spread duration calculation, and market spreads as of December 31, 2018, we estimate that a 100 basis point immediate, parallel increase in spreads across all asset classes, industry sectors and credit ratings ("spread shock") would decrease the net fair value of the assets by \$2.49 billion compared to \$2.46 billion as of December 31, 2017. Reflected in the spread duration calculation are the effects of tactical positions that include the use of credit default swaps to manage spread risk. The selection of a 100 basis point immediate parallel change in spreads should not be construed as our prediction of future market events, but only as an illustration of the potential effect of such an event. Equity price risk is the risk that we will incur losses due to adverse changes in the general levels of the equity markets. As of December 31, 2018, we held \$4.78 billion in common stocks and exchange traded and mutual funds and \$7.76 billion in other investments with equity risk (including primarily limited partnership interests and non-redeemable preferred securities), compared to \$6.33 billion and \$7.03 billion, respectively, as of December 31, 2017. 68.4% of the common stocks and exchange traded and mutual funds and 57.2% of the other securities with equity risk supported property and casualty products as of December 31, 2018, compared to 71.1% and 54.8%, respectively, as of December 31, 2017.

As of December 31, 2018, our portfolio of common stocks and other investments with equity risk had a cash market portfolio beta of 1.07, compared to a beta of 1.03 as of December 31, 2017. Beta represents a widely used methodology to describe, quantitatively, an investment's market risk characteristics relative to an index such as the Standard & Poor's 500 Composite Price Index ("S&P 500"). Based on the beta analysis, we estimate that if the S&P 500 increases or decreases by 10%, the fair value of our equity investments will increase or decrease by 10.7%, respectively. Based upon the information and assumptions we used to calculate beta as of December 31, 2018, we estimate that an immediate increase or decrease in the S&P 500 of 10% would increase or decrease the net fair value of our equity investments by \$1.34 billion, of which approximately 40% relates to public securities, compared to \$1.37 billion as of December 31, 2017.

We periodically use put options to reduce equity price risk or call options to adjust our equity risk profile. Put options provide an offset to declines in equity market values below a targeted level, while call options provide participation in equity market appreciation above a targeted level. Options can expire, terminate early or the option can be exercised. If the equity index does not fall below the put's strike price or rise above the call's strike price, the maximum loss on purchased puts and calls is limited to the amount of the premium paid. Based on the equity put and call

options in place at December 31, 2018, we would recognize \$18 million of losses in the event of a 10% increase in the S&P 500 index and \$28 million in gains in the event of a 10% decrease.

The selection of a 10% immediate increase or decrease in the S&P 500 should not be construed as our prediction of future market events, but only as an illustration of the potential effect of such an event. The beta of our common stocks and other investments with equity risk was determined by calculating the change in the fair value of the portfolio resulting from stressing the equity market up and down 10%. For limited partnership interests, quarterly changes in fair values may not be highly correlated to equity indices in the short-term and changes in value of these investments are generally recognized on a three-month delay due to the availability of the related investee financial statements. The illustrations noted above may not reflect our actual experience if the future composition of the portfolio (hence its beta) and correlation relationships differ from the historical relationships.

As of December 31, 2018 and 2017, we had separate account assets related to variable annuity and variable life contracts with account values totaling \$2.81 billion and \$3.44 billion, respectively. Equity risk exists for contract charges based on separate account balances and guarantees for death and/or income benefits provided by our variable products. In 2006, we disposed of substantially all of the variable annuity business through reinsurance agreements with The Prudential Insurance Company of America, a subsidiary of Prudential Financial Inc. and therefore mitigated this aspect of our risk. Equity risk for our variable life business relates to contract charges and policyholder benefits. Total direct and assumed variable life contract charges for 2018 and 2017 were \$44 million and \$41 million,

respectively. Separate account liabilities related to variable life contracts were \$68 million and \$70 million as of December 31, 2018 and 2017, respectively.

As of December 31, 2018 and 2017, we had \$1.83 billion and \$1.85 billion, respectively, in equity-indexed life and annuity liabilities that provide customers with interest crediting rates based on the performance of the S&P 500. We hedge the majority of the risk associated with these liabilities using equity-indexed options and futures and eurodollar futures, maintaining risk within specified value-at-risk limits.

Foreign currency exchange rate risk is the risk that we will incur economic losses due to adverse changes in foreign currency exchange rates. This risk primarily arises from our foreign equity investments, including common stocks, limited partnership interests, and our Canadian, Northern Ireland and Indian operations. We use foreign currency derivative contracts to partially offset this risk.

As of December 31, 2018, we also have \$96 million in certain fixed income securities and emerging market fixed income funds that are denominated in foreign currencies, of which approximately 0.4% used derivatives to hedge foreign currency risk.

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As of December 31, 2018, we had \$2.10 billion in foreign currency denominated equity investments, including the impact of foreign currency derivative contracts, \$860 million net investment in our foreign subsidiaries, primarily related to our Canadian operations, and \$96 million in unhedged non-U.S. dollar fixed income securities. These amounts were \$2.18 billion, \$1.02 billion, and \$112 million, respectively, as of December 31, 2017.

Based upon the information and assumptions used, including the impact of foreign currency derivative contracts, as of December 31, 2018, we estimate that a 10% immediate unfavorable change in each of the foreign currency exchange rates to which we are exposed would decrease the value of our foreign currency denominated instruments by \$306 million, compared with an estimated \$326 million decrease as of December 31, 2017. The selection of a 10% immediate decrease in all currency exchange rates should not be construed as our prediction of future market events, but only as an illustration of the potential effect of such an event.

The modeling technique we use to report our currency exposure does not take into account correlation among foreign currency exchange rates. Even though we believe it is very unlikely that all of the foreign currency exchange rates that we are exposed to would simultaneously decrease by 10%, we nonetheless stress test our portfolio under this and other hypothetical extreme adverse market scenarios. Our actual experience may differ from these results because of assumptions we have used or because significant liquidity and market events could occur that we did not foresee.

Pension and Other Postretirement Plans 2018 Form 10-K

Pension and Other Postretirement Plans

Our defined benefit pension plans cover most full-time employees, certain part-time employees and employee-agents. Benefits are based primarily on a cash balance formula; however, certain participants have a significant portion of their benefits attributable to a former final average pay formula. 87% of the projected benefit obligation ("PBO") of our primary qualified employee plan is related to the former final average pay formula. See Note 17 of the consolidated financial statements for a discussion of these plans and their effect on the consolidated financial statements. Our pension and other postretirement benefit costs are calculated using various actuarial assumptions and methodologies. These assumptions include discount rates, compensation increases, health care cost trend rates, inflation, expected returns on plan assets, mortality and other factors. The assumptions utilized in recording the obligations under our pension plans represent our best estimates and we believe they are reasonable based on information as to historical experience and performance as well as other factors that might cause future expectations to differ from past trends.

2019 change in pension and other postretirement plan accounting At January 1, 2019, we changed our accounting principle for recognizing actuarial gains and losses and expected return on plan assets for our pension and other postretirement plans to a more preferable policy under U.S. GAAP. Prior to 2019, actuarial gains and losses were recognized as a component of AOCI, and were generally amortized into earnings in future periods. Under the new principle, actuarial gains and losses will be immediately recognized through earnings ("fair value accounting"). In addition, we changed our policy for recognizing expected returns on plan assets by eliminating the permitted accounting practice allowing the five-year smoothing of equity returns and moving to an unadjusted fair value method.

We believe that fair value accounting is preferable as it provides greater transparency of our economic obligations in accounting results and better aligns with the fair value accounting principles by recognizing the effects of economic and interest rate changes on pension and other postretirement plan assets and liabilities in the year in which the gains and losses are incurred. These changes will be applied retrospectively thereby requiring restatement of prior periods presented and upon adoption will have no impact on shareholders' equity or book value per share.

Differences in actual experience or changes in assumptions After the January 1, 2019 change to fair value accounting, differences in actual experience or changes in assumptions will affect our pension and other postretirement obligations and future expense. The primary factors contributing to actuarial gains and losses are 1) changes in the discount rate used to value pension and postretirement obligations as of the measurement date, 2) differences between the expected and the actual return on plan assets, 3)

changes in demographic assumptions, including mortality, and 4) participant experience different from demographic assumptions.

Impact of assumption changes to net periodic pension and benefit costs, following a retrospective change to fair value accounting The discount rate is based on rates at which expected pension benefits attributable to past employee service could effectively be settled on a present value basis at the measurement date. We develop the assumed discount rate by utilizing the weighted average yield of a theoretical dedicated portfolio derived from non-callable bonds and bonds with a make-whole provision available in the Bloomberg corporate bond universe having ratings of at least "AA" by S&P or at least "Aa" by Moody's on the measurement date with cash flows that match expected plan benefit requirements. Significant changes in discount rates, such as those caused by changes in the credit spreads, yield curve, the mix of bonds available in the market, the duration of selected bonds and expected benefit payments, may result in volatility in pension cost.

Holding other assumptions constant, a hypothetical decrease of 100 basis points in the discount rate would result in an increase of \$612 million, pre-tax, in net periodic pension cost as of December 31, 2018. A hypothetical increase of 100 basis points in the discount rate would decrease net periodic pension cost by \$515 million, pre-tax, as of December 31, 2018. This non-symmetrical range results from the non-linear relationship between discount rates and pension obligations.

The expected long-term rate of return on plan assets reflects the average rate of earnings expected on plan assets. While this rate reflects long-term assumptions and is consistent with long-term historical returns, sustained changes in the market or changes in the mix of plan assets may lead to revisions in the assumed long-term rate of return on plan assets that may result in variability of pension cost. Differences between the actual return on plan assets and the expected long-term rate of return on plan assets are immediately recognized through earnings upon the annual remeasurement in the fourth quarter, or on an interim basis as triggering events warrant remeasurement. Short-term asset performance can differ significantly from the expected rate of return, especially in volatile markets. Holding other assumptions constant, a hypothetical increase or decrease of 100 basis points in the expected long-term rate of return on plan assets would result in a decrease or increase, respectively, of \$55 million, pre-tax, in net periodic pension cost as of December 31, 2018.

Assumed health care cost trend rates have a significant effect on the amounts reported for the postretirement health care plans. A one percentage-point increase in assumed health care cost trend rates would increase net periodic benefit cost for other postretirement benefits by \$27 million. A one

2018 Form 10-K Pension and Other Postretirement Plans

percentage-point decrease in assumed health care cost trend rates would decrease net periodic benefit cost for other postretirement benefits by \$24 million.

Target funding levels are established in accordance with applicable regulations, including those under the Internal Revenue Code for U.S. pension plans, and generally accepted actuarial principles. Our funding levels were within our targeted range as of December 31, 2018. In 2018, we contributed \$16 million to our unfunded non-qualified plans and zero to the qualified funded pension plans. We expect to contribute \$26 million and zero to these plans, respectively, for the 2019 fiscal year. This estimate could change significantly based on market conditions.

Capital Resources and Liquidity 2018 Form 10-K

Capital Resources and Liquidity

Capital resources consist of shareholders' equity and debt, representing funds deployed or available to be deployed to support business operations or for general corporate purposes.

Capital resources

	As of December 31,					
(\$ in millions)	2018		2017		2016	
Preferred stock, common stock, treasury stock, retained income and other shareholders' equity items	\$22,869		\$22,245		\$20,989)
Accumulated other comprehensive (loss) income	(1,557)	306		(416)
Total shareholders' equity	21,312		22,551		20,573	
Debt	6,451		6,350		6,347	
Total capital resources	\$27,763		\$28,901		\$26,920)
Ratio of debt to shareholders' equity	30.3	%	28.2	%	30.9	%
Ratio of debt to capital resources	23.2	%	22.0	%	23.6	%

Shareholders' equity decreased in 2018, primarily due to decreased net unrealized capital gains on investments, common share repurchases and dividends paid to shareholders, partially offset by net income and issuance of preferred stock. In 2018, we paid dividends of \$614 million and \$134 million related to our common and preferred shares, respectively. Shareholders' equity increased in 2017, primarily due to net income, increased unrealized net capital gains on investments and lower unrecognized pension and other postretirement benefit costs, partially offset by common share repurchases and dividends paid to shareholders.

Preferred stock and debt issuances On March 29, 2018, we issued 23,000 shares of 5.625% Fixed Rate Noncumulative Perpetual Preferred Stock, Series G, for aggregate proceeds of \$575 million, \$250 million of Floating Rate Senior Notes due 2021 and \$250 million of Floating Rate Senior Notes due 2023. The proceeds of these issuances were for general corporate purposes, including the redemption, repayment or repurchase of certain preferred stock or debt. Redemption and repayment of preferred stock and debt. On May 13, 2018, we redeemed our \$224 million Series B 6.125% Fixed-to-Floating Rate Junior Subordinated Debentures at a redemption price equal to 100% of the outstanding principal.

On May 15, 2018, we repaid \$176 million of 6.75% Senior Debentures at maturity.

On October 15, 2018, we redeemed all 15,400 shares of our Fixed Rate Noncumulative Perpetual Preferred Stock, Series C and the corresponding depository shares for \$385 million. The redemption price in excess of the carrying value for the preferred shares was recognized as part of preferred stock dividends on the Consolidated Statements of Operations and Consolidated Statements of Shareholders' Equity.

For additional details on these transactions, see Note 12 of the consolidated financial statements.

Debt \$317 million of senior debt is scheduled to mature in May 2019. As of December 31, 2018 and 2017, there were no outstanding commercial paper

borrowings. For further information on outstanding debt, see Note 12 of the consolidated financial statements. Common share repurchases On October 31, 2018, the Board authorized a new \$3.00 billion common share repurchase program that is expected to be completed by April 2020. Funding for the repurchase program may include potential preferred stock issuances of up to \$1.00 billion. As of December 31, 2018, there was \$2.07 billion remaining on the repurchase program.

In November 2018, we completed the \$2.00 billion common share repurchase program that commenced in August 2017.

In December 2018, we entered into an accelerated share repurchase agreement ("ASR agreement") with Wells Fargo Bank, National Association ("Wells Fargo"), to purchase \$1.00 billion of our outstanding common stock. Under the ASR agreement, we paid \$1.00 billion upfront and initially acquired 10.7 million shares. The actual number of shares we repurchase under this ASR agreement, and the average price paid per share, will be determined at the completion of the ASR agreement based on the volume weighted average price of Allstate's common stock during the period of

Wells Fargo's purchases. This ASR agreement is expected to be completed on or before May 2019.

During 2018, we repurchased 25.0 million common shares for \$2.20 billion. The common share repurchases were completed through open market transactions and ASR agreements.

Since 1995, we have acquired 707 million shares of our common stock at a cost of \$33.33 billion, primarily as part of various stock repurchase programs. We have reissued 141 million common shares since 1995, primarily associated with our equity incentive plans, the 1999 acquisition of American Heritage Life Investment Corporation and the 2001 redemption of certain mandatorily redeemable preferred securities. Since 1995, total common shares outstanding has decreased by 567 million shares or 63.1%, primarily due to our repurchase programs.

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Common shareholder dividends On January 2, 2018, April 2, 2018, July 2, 2018 and October 1, 2018, we paid common shareholder dividends of \$0.37, \$0.46, \$0.46 and \$0.46, respectively. On November 16, 2018, we declared a common shareholder dividend of \$0.46,

payable on January 2, 2019. On February 8, 2019, we declared a common shareholder dividend of \$0.50, payable on April 1, 2019.

Financial ratings and strength

Senior long-term debt, commercial paper and insurance financial strength ratings

	As of December 31, 2018			
	Moody	's S&P Global Ratings	A.M. Best	
The Allstate Corporation (debt)	A3	A-	a	
The Allstate Corporation (short-term issuer)	P-2	A-2	AMB-1+	
Allstate Insurance Company (insurance financial strength)	Aa3	AA-	A+	
Allstate Life Insurance Company (insurance financial strength)	A 1	A+	A+	
Allstate Assurance Company (insurance financial strength)	A1	N/A	A+	

Our ratings are influenced by many factors including our operating and financial performance, asset quality, liquidity, asset/liability management, overall portfolio mix, financial leverage (i.e., debt), exposure to risks such as catastrophes and the current level of operating leverage. The preferred stock and subordinated debentures are viewed as having a common equity component by certain rating agencies and are given equity credit up to a pre-determined limit in our capital structure as determined by their respective methodologies. These respective methodologies consider the existence of certain terms and features in the instruments such as the noncumulative dividend feature in the preferred stock.

In August 2018, Moody's affirmed The Allstate Corporation's debt and short-term issuer ratings of A3 and P-2, respectively, and the insurance financial strength ratings of Aa3 for AIC and A1 for both Allstate Life Insurance Company ("ALIC") and Allstate Assurance Company ("AAC"). The outlook for the ratings is stable. In August 2018, S&P affirmed The Allstate Corporation's debt and short-term issuer ratings of A- and A-2, respectively, and the insurance financial strength ratings of AA- for AIC and A+ for ALIC. The outlook for the ratings is stable. In April 2018, A.M. Best upgraded The Allstate Corporation's debt and short-term issuer ratings of a- and AMB-1 to a and AMB-1+, respectively, and affirmed the insurance financial strength ratings of A+ for AIC, ALIC and AAC. The outlook for the ratings is stable.

We have distinct and separately capitalized groups of subsidiaries licensed to sell property and casualty insurance that maintain separate group ratings. The ratings of these groups are influenced by the risks that relate specifically to each group. Many mortgage companies require property owners to have insurance from an insurance carrier with a secure financial strength rating from an accredited rating agency. In April 2018, A.M. Best affirmed the ANJ, which writes auto and homeowners insurance, rating of A, and affirmed the North Light, our excess and surplus lines carrier, rating of A+. The outlook for the ANJ rating and North Light rating is stable. ANJ also has a Financial Stability Rating® of A" from Demotech, which was

affirmed in November 2018. In February 2018, A.M. Best affirmed the CKIC, which underwrites personal lines property insurance in Florida, rating of B-. CKIC also has a Financial Stability Rating of A' from Demotech that was affirmed in November 2018. ANJ, North Light and CKIC do not have support agreements with AIC. Allstate's domestic property and casualty and life insurance subsidiaries prepare their statutory-basis financial statements in conformity with accounting practices prescribed or permitted by the insurance department of the applicable state of domicile. Statutory surplus is a measure that is often used as a basis for determining dividend paying capacity, operating leverage and premium growth capacity, and it is also reviewed by rating agencies in determining their ratings.

The property and casualty business is comprised of 29 insurance companies, each of which has individual company dividend limitations. As of December 31, 2018, total statutory surplus is \$18.15 billion compared to \$18.63 billion as

of December 31, 2017. Property and casualty subsidiaries surplus was \$14.33 billion as of December 31, 2018, compared to \$14.90 billion as of December 31, 2017. Life insurance subsidiaries surplus was \$3.82 billion as of December 31, 2018, compared to \$3.73 billion as of December 31, 2017.

The National Association of Insurance Commissioners ("NAIC") has developed financial relationships or tests known as the Insurance Regulatory Information System to assist state insurance regulators in monitoring the financial condition of insurance companies and identifying companies that require special attention or actions by state insurance regulators. The NAIC analyzes financial data provided by insurance companies using prescribed ratios, each with defined "usual ranges". Additional regulatory scrutiny may occur if a company's ratios fall outside the usual ranges for four or more of the ratios. Our domestic insurance companies have no significant departure from these ranges.

Capital Resources and Liquidity 2018 Form 10-K

Liquidity sources and uses Our potential sources and uses of funds principally include the following activities below. Activities for potential sources of funds

Activities for potential sources of funds						
	Property- Liability	Service Businesses	Allstate Life	Allstate Benefits	Allstate Annuities	Corporate and Other
Receipt of insurance premiums	ü	ü	ü	ü	ü	and other
Recurring service fees		ü		ü	C.	
Contractholder fund deposits			ü	ü	ü	
Reinsurance and indemnification program						
recoveries	ü	ü	ü	ü	ü	
Receipts of principal, interest and dividends	ü	ü	ü	ü	ü	ü
on investments	u	u	u	u	u	u
Sales of investments	ü	ü	ü	ü	ü	ü
Funds from securities lending, commercial	ü		ü		ü	ü
paper and line of credit agreements						
Intercompany loans	ü	ü	ü	ü	ü	ü
				::		
Capital contributions from parent	ü	ü	ü	ü	ü	
Dividends or return of capital from					ü	
subsidiaries	ü		ü		u	ü
Tax refunds/settlements	ü	ü	ü	ü	ü	ü
Funds from periodic issuance of additional				-		
securities						ü
Receipt of intercompany settlements related						ü
41						u
to employee benefit plans						
Activities for potential uses of funds						
		- Service		Allstate	Allstate	Corporate
		Businesses	Allstate Life	Allstate Benefits	Allstate Annuities	Corporate and Other
						•
Activities for potential uses of funds	Liability	Businesses	Life	Benefits	Annuities	•
Activities for potential uses of funds Payment of claims and related expenses	Liability	Businesses				•
Activities for potential uses of funds Payment of claims and related expenses Payment of contract benefits, maturities, surrenders and withdrawals Reinsurance cessions and indemnification	Liability ü	Businesses ü	Life ü	Benefits ü	Annuities ü	•
Activities for potential uses of funds Payment of claims and related expenses Payment of contract benefits, maturities, surrenders and withdrawals Reinsurance cessions and indemnification program payments	Liability	Businesses	Life ü ü	Benefits ü ü	Annuities ü ü	•
Activities for potential uses of funds Payment of claims and related expenses Payment of contract benefits, maturities, surrenders and withdrawals Reinsurance cessions and indemnification program payments Operating costs and expenses	Liability ü ü ü	Businesses ü ü ü	Life ü ü ü	Benefits ü ü ü	Annuities ü ü	•
Activities for potential uses of funds Payment of claims and related expenses Payment of contract benefits, maturities, surrenders and withdrawals Reinsurance cessions and indemnification program payments Operating costs and expenses Purchase of investments	Liability ü ü	Businesses ü	Life ü ü	Benefits ü ü	Annuities ü ü	and Other
Activities for potential uses of funds Payment of claims and related expenses Payment of contract benefits, maturities, surrenders and withdrawals Reinsurance cessions and indemnification program payments Operating costs and expenses Purchase of investments Repayment of securities lending,	Liability ü ü ü ü	Businesses ü ü ü	Life ü ü ü	Benefits ü ü ü	Annuities ü ü ü	and Other ü ü
Activities for potential uses of funds Payment of claims and related expenses Payment of contract benefits, maturities, surrenders and withdrawals Reinsurance cessions and indemnification program payments Operating costs and expenses Purchase of investments Repayment of securities lending, commercial paper and line of credit	Liability ü ü ü	Businesses ü ü ü	Life ü ü ü	Benefits ü ü ü	Annuities ü ü	and Other
Activities for potential uses of funds Payment of claims and related expenses Payment of contract benefits, maturities, surrenders and withdrawals Reinsurance cessions and indemnification program payments Operating costs and expenses Purchase of investments Repayment of securities lending, commercial paper and line of credit agreements	Liability ü ü ü ü	Businesses ü ü ü	Life ü ü ü	Benefits ü ü ü	Annuities ü ü ü	and Other ü ü
Payment of claims and related expenses Payment of contract benefits, maturities, surrenders and withdrawals Reinsurance cessions and indemnification program payments Operating costs and expenses Purchase of investments Repayment of securities lending, commercial paper and line of credit agreements Payment or repayment of intercompany	Liability ü ü ü ü	Businesses ü ü ü	Life ü ü ü	Benefits ü ü ü	Annuities ü ü ü	and Other ü ü
Payment of claims and related expenses Payment of contract benefits, maturities, surrenders and withdrawals Reinsurance cessions and indemnification program payments Operating costs and expenses Purchase of investments Repayment of securities lending, commercial paper and line of credit agreements Payment or repayment of intercompany loans	Liability ü ü ü ü	Businesses ü ü ü ü	Life ü ü ü ü	Benefits ü ü ü	Annuities ü ü ü ü ü	and Other ü ü ü
Payment of claims and related expenses Payment of contract benefits, maturities, surrenders and withdrawals Reinsurance cessions and indemnification program payments Operating costs and expenses Purchase of investments Repayment of securities lending, commercial paper and line of credit agreements Payment or repayment of intercompany loans Capital contributions to subsidiaries	Liability ü ü ü ü ü	Businesses ü ü ü ü	Life ü ü ü ü ü	Benefits ü ü ü ü	Annuities ü ü ü ü ü ü	and Other ü ü ü
Payment of claims and related expenses Payment of contract benefits, maturities, surrenders and withdrawals Reinsurance cessions and indemnification program payments Operating costs and expenses Purchase of investments Repayment of securities lending, commercial paper and line of credit agreements Payment or repayment of intercompany loans Capital contributions to subsidiaries Dividends or return of capital to	Liability ü ü ü ü	Businesses ü ü ü ü	Life ü ü ü ü	Benefits ü ü ü	Annuities ü ü ü ü ü	and Other ü ü ü
Payment of claims and related expenses Payment of contract benefits, maturities, surrenders and withdrawals Reinsurance cessions and indemnification program payments Operating costs and expenses Purchase of investments Repayment of securities lending, commercial paper and line of credit agreements Payment or repayment of intercompany loans Capital contributions to subsidiaries	Liability ü ü ü ü ü	Businesses ü ü ü ü	Life ü ü ü ü ü	Benefits ü ü ü ü	Annuities ü ü ü ü ü ü	and Other ü ü ü
Payment of claims and related expenses Payment of contract benefits, maturities, surrenders and withdrawals Reinsurance cessions and indemnification program payments Operating costs and expenses Purchase of investments Repayment of securities lending, commercial paper and line of credit agreements Payment or repayment of intercompany loans Capital contributions to subsidiaries Dividends or return of capital to shareholders/parent company	Liability ü ü ü ü ü ü	Businesses ü ü ü ü ü	Life ü ü ü ü ü ü	Benefits ü ü ü ü ü	Annuities ü ü ü ü ü ü ü	and Other ü ü ü
Payment of claims and related expenses Payment of contract benefits, maturities, surrenders and withdrawals Reinsurance cessions and indemnification program payments Operating costs and expenses Purchase of investments Repayment of securities lending, commercial paper and line of credit agreements Payment or repayment of intercompany loans Capital contributions to subsidiaries Dividends or return of capital to shareholders/parent company Tax payments/settlements	Liability ü ü ü ü ü ü	Businesses ü ü ü ü ü	Life ü ü ü ü ü ü	Benefits ü ü ü ü ü	Annuities ü ü ü ü ü ü ü	and Other ü ü ü ü

Payments related to employee and employee-agent benefit plans

Payments for acquisitions ü ü ü ü ü ü ü

We actively manage our financial position and liquidity levels in light of changing market, economic, and business conditions. Liquidity is managed at both the entity and enterprise level across the Company, and is assessed on both base and stressed level liquidity needs. We believe we have sufficient liquidity to meet these needs. Additionally, we have existing intercompany agreements in place that facilitate liquidity management across the Company to enhance flexibility.

As of December 31, 2018, we held \$8.96 billion of cash, U.S. government and agencies fixed income securities, and public equity securities (excluding non-redeemable preferred stocks and foreign equities)

which, under normal market conditions, we would expect to be able to liquidate within one week. In addition, we regularly estimate how much of the total portfolio, which includes high quality corporate fixed income and municipal holdings, can be reasonably liquidated within one quarter. These estimates are subject to considerable uncertainty associated with evolving market conditions. As of December 31, 2018, estimated liquidity available within one quarter without generating significant net realized capital losses was \$21.34 billion. As of December 31, 2018, gross unrealized losses related to fixed income securities totaled \$957 million.

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Certain remote events and circumstances could constrain our liquidity. Those events and circumstances include, for example, a catastrophe resulting in extraordinary losses, a downgrade in our senior long-term debt ratings to non-investment grade status, or a downgrade in AIC's or ALIC's financial strength ratings. The rating agencies also consider the interdependence of our individually rated entities; therefore, a rating change in one entity could potentially affect the ratings of other related entities.

The Allstate Corporation is party to an Amended and Restated Intercompany Liquidity Agreement ("Liquidity Agreement") with certain subsidiaries, which include, but are not limited to, ALIC and AIC. The Liquidity Agreement allows for short-term advances of funds to be made between parties for liquidity and other general corporate purposes. The Liquidity Agreement does not establish a commitment to advance funds on the part of any party. ALIC and AIC each serve as a lender and borrower, certain other subsidiaries serve only as borrowers, and the Corporation serves only as a lender. AIC also has a capital support agreement with ALIC. Under the capital support agreement, AIC is committed to providing capital to ALIC to maintain an adequate capital level. The maximum amount of potential funding under each of these agreements is \$1.00 billion.

In addition to the Liquidity Agreement, the Corporation also has an intercompany loan agreement with certain of its subsidiaries, which include, but are not limited to, AIC and ALIC. The amount of intercompany loans available to the Corporation's subsidiaries is at the discretion of the Corporation. The maximum amount of loans the Corporation will have outstanding to all its eligible subsidiaries at any given point in time is limited to \$1.00 billion. The Corporation may use commercial paper borrowings, bank lines of credit and securities lending to fund intercompany borrowings. Parent company capital capacity At the parent holding company level, we have deployable assets totaling \$1.50 billion as of December 31, 2018, comprising cash and investments that are generally saleable within one quarter. The substantial earnings capacity of the operating subsidiaries is the primary source of capital generation for the Corporation.

The payment of dividends by AIC to The Allstate Corporation is limited by Illinois insurance law to formula amounts based on statutory net income and statutory surplus, as well as the timing and amount of dividends paid in the preceding twelve months. Based on the greater of 2018 statutory net income or 10% of statutory surplus, the maximum amount of dividends that AIC will be able to pay, without prior Illinois Department of Insurance approval, at a given point in time in 2019 is estimated at \$2.73 billion, less dividends paid during the preceding twelve months measured at that point in time. Notification and approval of intercompany lending activities are also required by the Illinois Department of Insurance for those transactions that exceed formula amounts based on statutory admitted assets and statutory surplus.

This provides funds for the parent company's fixed charges and other corporate purposes.

Intercompany dividends were paid in 2018, 2017 and 2016 between the following companies: AIC, Allstate Insurance Holdings, LLC ("AIH"), the Corporation, ALIC, American Heritage Life Insurance Company ("AHL") and Allstate Financial Insurance Holdings Corporation ("AFIHC").

Intercompany dividends

(\$ in millions) 2018 2017 2016 AIC to AIH \$2,874 \$1,555 \$1,905 AIH to the Corporation 2,897 1,613 1,865 ALIC to AIC 250 600 — AHL to AFIHC 55 70 55

Dividends may not be paid or declared on our common stock and shares of common stock may not be repurchased unless the full dividends for the latest completed dividend period on our preferred stock have been declared and paid or provided for. We are prohibited from declaring or paying dividends on our preferred stock if we fail to meet specified capital adequacy, net income or shareholders' equity levels, except out of the net proceeds of common stock issued during the 90 days prior to the date of declaration. As of December 31, 2018, we satisfied all of the tests with no current restrictions on the payment of preferred stock dividends. There were no capital contributions paid by the Corporation to AIC in 2018, 2017 or 2016. There were no capital contributions by AIC to ALIC in 2018, 2017 or 2016.

The terms of our outstanding subordinated debentures also prohibit us from declaring or paying any dividends or distributions on our common or preferred stock or redeeming, purchasing, acquiring, or making liquidation payments on our common stock or preferred stock if we have elected to defer interest payments on the subordinated debentures, subject to certain limited exceptions. In 2018, we did not defer interest payments on the subordinated debentures. Additional borrowings to support liquidity are as follows:

The Corporation has access to a commercial paper facility with a borrowing limit of \$1.00 billion to cover

• short-term cash needs. As of December 31, 2018, there were no balances outstanding and therefore the remaining borrowing capacity was \$1.00 billion; however, the outstanding balance can fluctuate daily.

The Corporation, AIC and ALIC have access to a \$1.00 billion unsecured revolving credit facility that is available for short-term liquidity requirements. The maturity date of this facility is April 2021. The facility is fully subscribed among 11 lenders with the largest commitment being \$115 million. The commitments of the lenders are several and no lender is responsible for any other lender's commitment if such lender fails to make a loan under the facility. This facility contains an increase provision that would allow up to an additional \$500

Capital Resources and Liquidity 2018 Form 10-K

million of borrowing. This facility has a financial covenant requiring that we not exceed a 37.5% debt to capitalization ratio as defined in the agreement. This ratio was 16.0% as of December 31, 2018. Although the right to borrow under the facility is not subject to a minimum rating requirement, the costs of maintaining the facility and borrowing under it are based on the ratings of our senior unsecured, unguaranteed long-term debt. There were no borrowings under the credit facility during 2018.

The Corporation has access to a universal shelf registration statement with the Securities and

Exchange Commission that expires in 2021. We can use this shelf registration to issue an unspecified amount of debt securities, common stock (including 568 million shares of treasury stock as of December 31, 2018), preferred stock, depositary shares, warrants, stock purchase contracts, stock purchase units and securities of trust subsidiaries. The specific terms of any securities we issue under this registration statement will be provided in the applicable prospectus supplements.

Liquidity exposure Contractholder funds were \$18.37 billion as of December 31, 2018.

Contractholder funds by contractual withdrawal provisions

(\$ in millions)	December 3	1, Percent
(\$ in millions)	2018	to total
Not subject to discretionary withdrawal	\$ 2,848	15.5 %
Subject to discretionary withdrawal with adjustments:		
Specified surrender charges (1)	4,753	25.9
Market value adjustments (2)	996	5.4
Subject to discretionary withdrawal without adjustments (3)	9,774	53.2
Total contractholder funds (4)	\$ 18,371	100.0%

- (1) Includes \$870 million of liabilities with a contractual surrender charge of less than 5% of the account balance. \$512 million of the contracts with market value adjusted surrenders have a 30-45 day period at the end of their
- (2) initial and subsequent interest rate guarantee periods (which are typically 1, 5, 7 or 10 years) during which there is no surrender charge or market value adjustment. \$225 million of these contracts have their 30-45 day window period in 2019.
- (3) 89% of these contracts have a minimum interest crediting rate guarantee of 3% or higher.
- (4) Includes \$732 million of contractholder funds on variable annuities reinsured to The Prudential Insurance Company of America, a subsidiary of Prudential Financial Inc., in 2006.

Retail life and annuity products may be surrendered by customers for a variety of reasons. Reasons unique to individual customers include a current or unexpected need for cash or a change in life insurance coverage needs. Other key factors that may impact the likelihood of customer surrender include the level of the contract surrender charge, the length of time the contract has been in force, distribution channel, market interest rates, equity market conditions and potential tax implications.

In addition, the propensity for retail life insurance policies to lapse is lower than it is for fixed annuities because of the need for the insured to be re-underwritten upon policy replacement.

The surrender and partial withdrawal rate on deferred fixed annuities and interest-sensitive life insurance products, based on the beginning of year contractholder funds, was 7.2% and 6.1% in 2018 and 2017, respectively. We strive to promptly pay customers who request cash surrenders; however, statutory regulations generally provide up to six months in most states to fulfill surrender requests.

Our asset-liability management practices enable us to manage the differences between the cash flows generated by our investment portfolio and the expected cash flow requirements of our life insurance and annuity product obligations.

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Contractual obligations and commitments Our contractual obligations as of December 31, 2018, and the payments due by period are shown in the following table.

Contractual obligations and payments due by period

	As of December 31, 2018				
(\$ in millions)	Total	Less than 1 year	1 to 3 years	Over 3 years to 5 years	Over 5 years
Liabilities for collateral (1)	\$1,458	\$1,458	\$ —	\$—	\$ —
Contractholder funds (2)	37,570	2,185	4,094	3,736	27,555
Reserve for life-contingent contract benefits (2)	38,787	1,425	2,661	2,428	32,273
Long-term debt (3)	13,429	625	843	1,320	10,641
Operating leases (4)	650	139	217	144	150
Unconditional purchase obligations (4)	568	287	274	6	1
Defined benefit pension plans and other postretirement benefit plans (4)(5)	958	47	113	117	681
Reserve for property and casualty insurance claims and claims expense (6)	27,423	12,498	8,692	3,040	3,193
Other liabilities and accrued expenses (7)(8)	5,918	5,634	259	12	13
Net unrecognized tax benefits (9)	70	58	12	_	_
Total contractual cash obligations	\$126,831	\$24,356	\$17,165	\$10,803	\$74,507

- Liabilities for collateral are typically fully secured with cash or short-term investments. We manage our short-term
- (1) liquidity position to ensure the availability of a sufficient amount of liquid assets to extinguish short-term liabilities as they come due in the normal course of business, including utilizing potential sources of liquidity as disclosed previously.
- (2) Contractholder funds represent interest-bearing liabilities arising from the sale of products such as interest-sensitive life and fixed annuities, including immediate annuities without life contingencies. The reserve for life-contingent contract benefits relates primarily to traditional life insurance, immediate annuities with life contingencies and voluntary accident and health insurance. These amounts reflect the present value of estimated cash payments to be made to contractholders and policyholders. Certain of these contracts, such as immediate annuities without life contingencies, involve payment obligations where the amount and timing of the payment are essentially fixed and determinable. These amounts relate to (i) policies or contracts where we are currently making payments and will continue to do so and (ii) contracts where the timing of a portion or all of the payments has been determined by the contract. Other contracts, such as interest-sensitive life, fixed deferred annuities, traditional life insurance and voluntary accident and health insurance, involve payment obligations where a portion or all of the amount and timing of future payments is uncertain. For these contracts, we are not currently making payments and will not make payments until (i) the occurrence of an insurable event such as death or illness or (ii) the occurrence of a payment triggering event such as the surrender or partial withdrawal on a policy or deposit contract, which is outside of our control. For immediate annuities with life contingencies, the amount of future payments is uncertain since payments will continue as long as the annuitant lives. We have estimated the timing of payments related to these contracts based on historical experience and our expectation of future payment patterns. Uncertainties relating to these liabilities include mortality, morbidity, expenses, customer lapse and withdrawal activity, estimated additional deposits for interest-sensitive life contracts, and renewal premium for life policies, which may significantly impact both the timing and amount of future payments. Such cash outflows reflect adjustments for the estimated timing of mortality, retirement, and other appropriate factors, but are undiscounted with respect to interest. As a result, the sum of the cash outflows shown for all years in the table exceeds the corresponding liabilities of \$18.37 billion for contractholder funds and \$12.21 billion for reserve for life-contingent contract benefits as included in the Consolidated Statements of Financial Position as of December 31, 2018. The liability amount in the Consolidated Statements of Financial Position reflects the discounting for interest as well as adjustments for the timing of other factors as described above. Future premium collections are not included in the

- amounts presented in the table above.
- (3) Amount differs from the balance presented on the Consolidated Statements of Financial Position as of December 31, 2018, because the long-term debt amount above includes interest and excludes debt issuance costs. Our payment obligations relating to operating leases, unconditional purchase obligations and pension and other
- (4) postretirement benefits ("OPEB") contributions are managed within the structure of our intermediate to long-term liquidity management program.
 - The pension plans' obligations in the next 12 months represent our planned contributions to certain unfunded non-qualified plans where the benefit obligation exceeds the assets, and the remaining years' contributions are projected based on the average remaining service period using the current underfunded status of the plans. The
- (5) OPEB plans' obligations are estimated based on the expected benefits to be paid. These liabilities are discounted with respect to interest, and as a result the sum of the cash outflows shown for all years in the table exceeds the corresponding liability amount of \$510 million included in other liabilities and accrued expenses on the Consolidated Statements of Financial Position.
 - Reserve for property and casualty insurance claims and claims expense is an estimate of amounts necessary to settle all outstanding claims, including claims that have been IBNR as of the balance sheet date. We have estimated
- (6) the timing of these payments based on our historical experience and our expectation of future payment patterns. However, the timing of these payments may vary significantly from the amounts shown above, especially for IBNR claims. The ultimate cost of losses may vary materially from recorded amounts that are our best estimates. Other liabilities primarily include accrued expenses and certain benefit obligations and claim payments and other
- (7) checks outstanding. Certain of these long-term liabilities are discounted with respect to interest, as a result the sum of the cash outflows shown for all years in the table exceeds the corresponding liability amount by \$4 million.
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Balance sheet liabilities not included in the table above include unearned and advance premiums of \$15.29 billion and gross deferred tax liabilities of \$1.58 billion. These items were excluded as they do not meet the definition of a

- (8) contractual liability as we are not contractually obligated to pay these amounts to third parties. Rather, they represent an accounting mechanism that allows us to present our financial statements on an accrual basis. In addition, other liabilities of \$252 million were not included in the table above because they did not represent a contractual obligation or the amount and timing of their eventual payment was sufficiently uncertain.

 Net unrecognized tax benefits represent our potential future obligation to the taxing authority for a tax position that
- (9) was not recognized in the consolidated financial statements. We believe it is reasonably possible that a decrease of up to \$58 million in unrecognized tax benefits may occur within the next twelve months due to IRS settlements. The resolution of this obligation may be for an amount different than what we have accrued.

Contractual commitments and periods in which commitments expire

As of December 31, 2018

		Less		Over	
(d): '11: \	TD 4 1	than	1 to 3	3	Over 5 years
(\$ in millions)	1 otai	1	years	years	years
		year		Waare	
Other commitments – conditional				•	\$57
Other commitments – unconditiona					2,182
Total commitments					\$2,239

Contractual commitments represent investment commitments such as private placements, limited partnership interests and other loans. Limited partnership interests are typically funded over the commitment period which is shorter than the contractual expiration date of the partnership and as a result, the actual timing of the funding may vary. We have agreements in place for services we conduct, generally at cost, between subsidiaries relating to insurance, reinsurance, loans and capitalization. All material intercompany transactions have been appropriately eliminated in consolidation. Intercompany transactions among insurance subsidiaries and affiliates have been approved by the appropriate departments of insurance as required.

For a more detailed discussion of our off-balance sheet arrangements, see Note 7 of the consolidated financial statements.

2018 Form 10-K Enterprise Risk and Return Management

Enterprise Risk and Return Management

In addition to the normal risks of the business, Allstate is subject to significant risks as an insurer and a provider of other products and financial services. These risks are discussed in more detail in the Risk Factors section of this document. We regularly identify, measure, monitor and report all significant risks. The major categories of enterprise risks are insurance, financial, investment, operational and strategic.

Allstate manages these risks through Enterprise Risk and Return Management ("ERRM") governance practices, culture, and activities that are performed on an integrated, enterprise-wide basis, following our risk and return principles. Our legal and capital structures are designed to manage capital and solvency on a legal entity basis. Our risk-return principles define how we operate and guide decision-making around risk and return. These principles state that our priority is to protect solvency, comply with laws and act with integrity. Building upon this foundation, we strive to build strategic value and optimize risk and return.

Governance ERRM governance includes board oversight, an executive management committee structure, and enterprise and business unit chief risk officers.

The Allstate Corporation Board of Directors ("Allstate Board") has overall responsibility for oversight of management's design and implementation of ERRM.

The Risk and Return Committee ("RRC") of the Allstate Board oversees effectiveness of the ERRM framework, governance structure and decision-making, while focusing on the Company's overall risk profile.

The Audit Committee oversees effectiveness of management's control framework for risks and cybersecurity. The Enterprise Risk and Return Council ("ERRC") is Allstate's senior risk management committee that directs ERRM by establishing risk-return targets, determining economic capital levels and directing integrated strategies and actions from an enterprise perspective. The ERRC consists of Allstate's chief executive officer and president, vice chair, chief financial officer, business unit presidents, chief investment and corporate strategy officer, chief risk officer, general counsel, treasurer, vice president of operational risk, business unit chief risk officers, and business unit chief financial officers.

Other key committees work with the ERRC to direct ERRM activities, including the Operating Committee, the Operational Risk Council, the Corporate Asset Liability Committee, legal entity liability governance committees, and legal entity investment committees.

Key risks are assessed and reported quarterly through a comprehensive ERRM risk dashboard prepared for senior management and the RRC. The

risk dashboard communicates alignment of Allstate's risk profile with risk and return principles while providing a perspective on quarterly risk position. Dashboard discussion promotes active engagement with management and the RRC. Internal controls over key risks are managed and reported to senior management and the Audit Committee of the Company through a semiannual risk control dashboard. Annually, we communicate with both the Allstate Board and the RRC about economic capital and risks related to the strategic plan, operating plan, and incentive compensation programs.

Framework We apply these principles using an integrated ERRM framework that focuses on measurement, transparency and dialogue. Our framework provides a comprehensive view of risks and is used by senior management and business managers to drive strategic and business decisions. We continually validate and improve our ERRM practices by benchmarking and obtaining external perspectives.

Allstate's risk appetite is integrated with planning through our economic capital framework. Management and the ERRC rely on internal and external perspectives to determine an appropriate level of target economic capital. Internal perspectives include enterprise solvency and volatility measures, stress scenarios, model assumptions, and management judgment. External considerations include NAIC risk-based capital as well as S&P's, Moody's, and A.M. Best's capital adequacy measurement. Our economic capital reflects management's view of the aggregate level of capital necessary to satisfy stakeholder interests, manage Allstate's risk profile and maintain financial strength over a multi-year time horizon. The impact of strategic initiatives on enterprise risk is evaluated through the economic capital framework.

The NAIC has adopted the Risk Management and Own Risk and Solvency Assessment Model Act ("ORSA Model Act"), which has been enacted by our insurance subsidiaries' domiciliary states. The ORSA Model Act requires that insurers maintain a risk management framework and conduct an internal own risk and solvency assessment of the insurer's material risks in normal and stressed environments. The assessment must be documented in a confidential annual summary report, a copy of which must be made available to regulators as required or upon request. The enterprise risk appetite is cascaded into individual risk limits which set boundaries on the amount of risk we are willing to accept from one specific risk category before escalating for further management discussion and action. Risk limits are established based upon expected returns, volatility, potential tail losses, and impact on the enterprise portfolio. To effectively operate within risk limits and for risk-return optimization, business units establish risk limits and capital targets specific to their businesses. Allstate's risk management strategies adapt to changes in business and market environments.

Enterprise Risk and Return Management 2018 Form 10-K

Process Our shared ERRM framework establishes a basis for transparency and dialogue across the enterprise and for continuous learning by embedding our risk and return management culture of identifying, measuring, managing, monitoring and reporting risks within the organization. Allstate designs business and enterprise strategies that seek to optimize risk-adjusted returns on capital. Risks are managed at both the legal entity and enterprise level. A summary of our process to manage each of our major risk categories follows:

Insurance risk management addresses fluctuations in the timing, frequency, and severity of benefits, expenses, and premiums relative to the return expectations at the time of pricing inclusive of systemic risk, concentration of insurance exposures, policy terms, reinsurance coverage, and claims handling practices. This includes credit risk that arises when an external party fails to meet a contractual obligation such as reinsurance for ceded claims. Insurance risk exposures include our operating results and financial conditions, claims frequency and severity, catastrophes and severe weather, and mortality and morbidity risk.

Insurance risk exposures are measured and monitored with different approaches including:

Stochastic methods: measures and monitors risks such as natural catastrophes and severe weather. We develop probabilistic estimates of risk based on our exposures, historical observed volatility and/or industry-recognized models in the case of catastrophe risk.

Scenario analysis: measures and monitors risks and estimated losses due to extreme but plausible insurance-related events such as multiple hurricanes and/or wildfires. Scenarios evaluated include combined multiple event scenarios across risk categories and time periods, considering the effects of macroeconomic conditions.

Financial risk management addresses the risk of insufficient cash flows to meet corporate or policyholder needs, risk of inadequate aggregate capital or capital within any subsidiary, inability to access capital markets or risk associated with a business counterparty default.

Financial risk exposures include capital resources and liquidity sources and uses.

We actively manage our capital and liquidity levels in light of changing market, economic, and business conditions. Our capital position, capital generation capacity, and targeted risk profile provide strategic and financial flexibility. We generally assess solvency on a statutory accounting basis, but also consider GAAP volatility. Current enterprise capital, which exceeds economic targeted levels, is based on a combination of statutory surplus and invested assets at the parent holding company level which were \$18.15 billion and \$1.50 billion, respectively, as of December 31, 2018.

Investment risk management addresses financial loss due to changes in the valuations of assets held in the Allstate investment portfolio. Such losses may be caused by macro developments, such as rising interest rates, widening credit spreads, and falling equity prices, or could be specific to individual investments in the portfolio. These losses can encompass both daily market volatility and permanent impairments of capital due to credit defaults and equity write-downs.

Investment risk exposures include interest rate risk, credit spread risk, equity price risk and foreign currency exchange rate risk.

Investment risk exposures are measured and monitored in a number of ways including:

Sensitivity analysis: measures the impact from a unit change in a market risk input.

Stochastic and probabilistic estimation of potential losses: combines portfolio risk exposures with historical or recent market volatilities and correlations to assess the potential span of future investment results.

Scenario analysis: measures material adverse outcomes such as shock scenarios applied to credit, public and private equity markets. Some of the stress scenarios are a combination of multiple scenarios across risk categories and over multiple time periods, considering the effects of macroeconomic conditions.

Operational risk management addresses loss as a result of the failure of people, processes, systems and culture. Operational risk exposures include human resources, privacy, regulatory compliance, ethics, fraud, system availability, cybersecurity, data quality, disaster recovery and business continuity.

Operational risk is managed at the enterprise and business unit levels, with business units identifying, measuring, monitoring, managing, and reporting these and other operational risks at a more detailed level.

Strategic risk management addresses loss associated with inadequate or flawed business planning or strategy setting, including product mix, mergers or acquisitions and market positioning, and unexpected changes within the market or regulatory environment in which Allstate operates. This includes reputational risk, which is the potential for negative publicity regarding a company's conduct or business practices to adversely impact its profitability, operations, consumer base, or require costly litigation and other defensive measures.

We manage strategic risk through the Allstate Board and senior management strategy reviews that include a risk and return assessment of our strategic plans and ongoing monitoring of our strategic actions and the external competitive environment. Using the ERRM framework, Allstate designs strategies that seek to optimize risk-adjusted returns on economic capital for risk types including interest rate risk, credit risk to equity investments with idiosyncratic return potential, auto profitability, and growing property exposure.

2018 Form 10-K Application of Critical Accounting Estimates and Other Disclosures

Application of Critical Accounting Estimates

The preparation of financial statements in conformity with GAAP requires management to adopt accounting policies and make estimates and assumptions that affect amounts reported in the consolidated financial statements. The most critical estimates, presented in the order they appear in the Consolidated Statements of Financial Position, include those used in determining:

Fair value of financial assets

Impairment of fixed income securities

Deferred policy acquisition costs amortization

Evaluation of goodwill for impairment

Reserve for property and casualty insurance claims and claims expense estimation

Reserve for life-contingent contract benefits estimation

In making these determinations, management makes subjective and complex judgments that frequently require estimates about matters that are inherently uncertain. Many of these policies, estimates and related judgments are common in the insurance and financial services industries; others are specific to our businesses and operations. It is reasonably likely that changes in these estimates could occur from period to period and result in a material impact on our consolidated financial statements.

A summary of each of these critical accounting estimates follows. For a more detailed discussion of the effect of these estimates on our consolidated financial statements, and the judgments and assumptions related to these estimates, see the referenced sections of this document. For a more detailed summary of our significant accounting policies, see the notes to the consolidated financial statements.

Fair value of financial assets Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. We are responsible for the determination of fair value of financial assets and the supporting assumptions and methodologies. We use independent third-party valuation service providers, broker quotes and internal pricing methods to determine fair values. We obtain or calculate only one single quote or price for each financial instrument.

Valuation service providers typically obtain data about market transactions and other key valuation model inputs from multiple sources and, through the use of proprietary models, produce valuation information in the form of a single fair value for individual fixed income and other securities for which a fair value has been requested under the terms of our agreements. The inputs used by the valuation service providers include, but are not limited to, market prices from recently completed transactions and transactions of comparable securities, interest rate yield curves, credit spreads, liquidity spreads, currency rates, and

other information, as applicable. Credit and liquidity spreads are typically implied from completed transactions and transactions of comparable securities. Valuation service providers also use proprietary discounted cash flow models that are widely accepted in the financial services industry and similar to those used by other market participants to value the same financial instruments. The valuation models take into account, among other things, market observable information as of the measurement date, as described above, as well as the specific attributes of the security being valued including its term, interest rate, credit rating, industry sector, and where applicable, collateral quality and other issue or issuer specific information. Executing valuation models effectively requires seasoned professional judgment and experience. For certain equity securities, valuation service providers provide market quotations for completed transactions on the measurement date. In cases where market transactions or other market observable data is limited, the extent to which judgment is applied varies inversely with the availability of market observable information. For certain of our financial assets measured at fair value, where our valuation service providers cannot provide fair value determinations, we obtain a single non-binding price quote from a broker familiar with the security who, similar to our valuation service providers, may consider transactions or activity in similar securities among other information. The brokers providing price quotes are generally from the brokerage divisions of financial institutions with market making, underwriting and distribution expertise regarding the security subject to valuation.

The fair value of certain financial assets, including privately placed corporate fixed income securities and free-standing derivatives, for which our valuation service providers or brokers do not provide fair value

determinations, is developed using valuation methods and models widely accepted in the financial services industry. Our internal pricing methods are primarily based on models using discounted cash flow methodologies that develop a single best estimate of fair value. Our models generally incorporate inputs that we believe are representative of inputs other market participants would use to determine fair value of the same instruments, including yield curves, quoted market prices of comparable securities or instruments, published credit spreads, and other applicable market data as well as instrument-specific characteristics that include, but are not limited to, coupon rates, expected cash flows, sector of the issuer, and call provisions. Because judgment is required in developing the fair values of these financial assets, they may differ from the amount actually received to sell an asset in an orderly transaction between market participants at the measurement date. Moreover, the use of different valuation assumptions may have a material effect on the financial assets' fair values.

For most of our financial assets measured at fair value, all significant inputs are based on or corroborated by market observable data, and

Application of Critical Accounting Estimates and Other Disclosures 2018 Form 10-K

significant management judgment does not affect the periodic determination of fair value. The determination of fair value using discounted cash flow models involves management judgment when significant model inputs are not based on or corroborated by market observable data. However, where market observable data is available, it takes precedence, and as a result, no range of reasonably likely inputs exists from which the basis of a sensitivity analysis could be constructed.

We gain assurance that our financial assets are appropriately valued through the execution of various processes and controls designed to ensure the overall reasonableness and consistent application of valuation methodologies, including inputs and assumptions, and compliance with accounting standards. For fair values received from third parties or internally estimated, our processes and controls are designed to ensure that the valuation methodologies are appropriate and consistently applied, the inputs and assumptions are reasonable and consistent with the objective of determining fair value, and the fair values are accurately recorded. For example, on a continuing basis, we assess the reasonableness of individual fair values that have stale security prices or that exceed certain thresholds as compared to previous fair values received from valuation service providers or brokers or derived from internal models. We perform procedures to understand and assess the methodologies, processes and controls of valuation service providers. In addition, we may validate the reasonableness of fair values by comparing information obtained from

valuation service providers or brokers to other third party valuation sources for selected securities. We perform ongoing price validation procedures such as back-testing of actual sales, which corroborate the various inputs used in internal models to market observable data. When fair value determinations are expected to be more variable, we validate them through reviews by members of management who have relevant expertise and who are independent of those charged with executing investment transactions.

We also perform an analysis to determine whether there has been a significant decrease in the volume and level of activity for the asset when compared to normal market activity, and if so, whether transactions may not be orderly. Among the indicators we consider in determining whether a significant decrease in the volume and level of market activity for a specific asset has occurred include the level of new issuances in the primary market, trading volume in the secondary market, level of credit spreads over historical levels, bid-ask spread, and price consensuses among market participants and sources. If evidence indicates that prices are based on transactions that are not orderly, we place little, if any, weight on the transaction price and will estimate fair value using an internal model. As of December 31, 2018 and 2017, we did not adjust fair values provided by our valuation service providers or brokers or substitute them with an internal model for such securities.

Fixed income, equity securities and short-term investments by source of fair value determination

	December 31,		
	2018		
(¢ ::11:)	Fair	Percent	
(\$ in millions)	value	to total	
Fair value based on internal sources	\$3,138	4.8 %	
Fair value based on external sources (1)	62,095	95.2	
Total	\$65,233	100.0%	

⁽¹⁾ Includes \$379 million that are valued using broker quotes and \$268 million that are valued using quoted prices or quoted net asset values from deal sponsors.

For additional detail on fair value measurements, see Note 6 of the consolidated financial statements. Impairment of fixed income securities For fixed income securities classified as available-for-sale, the difference between fair value and amortized cost, net of certain other items and deferred income taxes (as disclosed in Note 5 of the consolidated financial statements), is reported as a component of AOCI on the Consolidated Statements of Financial Position and is not reflected in the operating results of any period until reclassified to net income upon the consummation of a transaction with an unrelated third party or when a write-down is recorded due to an other-than-temporary decline in fair value. We have a comprehensive portfolio monitoring process to identify and

evaluate each fixed income security whose carrying value may be other-than-temporarily impaired. For each fixed income security in an unrealized loss position, we assess whether management with the appropriate authority has made the decision to sell or

whether it is more likely than not we will be required to sell the security before recovery of the amortized cost basis for reasons such as liquidity, contractual or regulatory purposes. If a security meets either of these criteria, the security's decline in fair value is considered other than temporary and is recorded in earnings.

If we have not made the decision to sell the fixed income security and it is not more likely than not we will be required to sell the fixed income security before recovery of its amortized cost basis, we evaluate whether we expect to receive cash flows sufficient to recover the entire amortized cost basis of the security. We use our best estimate of future cash flows expected to be collected from the fixed income security, discounted at the security's original or

current effective rate, as appropriate, to calculate a recovery value and determine whether a credit loss exists. The determination of cash flow estimates is inherently subjective and methodologies may vary depending on facts and circumstances specific to the security. All reasonably available information relevant to the

2018 Form 10-K Application of Critical Accounting Estimates and Other Disclosures

collectability of the security, including past events, current conditions, and reasonable and supportable assumptions and forecasts, is considered when developing the estimate of cash flows expected to be collected. That information generally includes, but is not limited to, the remaining payment terms of the security, prepayment speeds, foreign exchange rates, the financial condition and future earnings potential of the issue or issuer, expected defaults, expected recoveries, the value of underlying collateral, vintage, geographic concentration, available reserves or escrows, current subordination levels, third party guarantees and other credit enhancements. Other information, such as industry analyst reports and forecasts, sector credit ratings, financial condition of the bond insurer for insured fixed income securities, and other market data relevant to the realizability of contractual cash flows, may also be considered. The estimated fair value of collateral will be used to estimate recovery value if we determine that the security is dependent on the liquidation of collateral for ultimate settlement. If the estimated recovery value is less than the amortized cost of the security, a credit loss exists and an other-than-temporary impairment for the difference between the estimated recovery value and amortized cost is recorded in earnings. The portion of the unrealized loss related to factors other than credit remains classified in AOCI. If we determine that the fixed income security does not have sufficient cash flow or other information to estimate a recovery value for the security, we may conclude that the entire decline in fair value is deemed to be credit related and the loss is recorded in earnings.

Once assumptions and estimates are made, any number of changes in facts and circumstances could cause us to subsequently determine that a fixed income security is other-than-temporarily impaired, including: 1) general economic conditions that are worse than previously forecast or that have a greater adverse effect on a particular issuer or industry sector than originally estimated; 2) changes in the facts and circumstances related to a particular issue or issuer's ability to meet all of its contractual obligations; and 3) changes in facts and circumstances that result in management's decision to sell or result in our assessment that it is more likely than not we will be required to sell before recovery of the amortized cost basis. Changes in assumptions, facts and circumstances could result in additional charges to earnings in future periods to the extent that losses are realized. The charge to earnings, while potentially significant to net income, would not have a significant effect on shareholders' equity, since our fixed income securities are designated as available-for-sale and carried at fair value and as a result, any related unrealized loss, net of deferred income taxes and related DAC, deferred sales inducement costs and reserves for life-contingent contract benefits, would already be reflected as a component of AOCI in shareholders' equity.

The determination of the amount of other-than-temporary impairment is an inherently subjective process based on periodic evaluations of the factors described above. Such evaluations and assessments

are revised as conditions change and new information becomes available. We update our evaluations regularly and reflect changes in other-than-temporary impairments in our results of operations as such evaluations are revised. The use of different methodologies and assumptions in the determination of the amount of other-than-temporary impairments may have a material effect on the amounts recognized and presented within the consolidated financial statements.

For additional detail on investment impairments, see Note 5 of the consolidated financial statements.

Deferred policy acquisition costs amortization We incur significant costs in connection with acquiring insurance policies and investment contracts. In accordance with GAAP, costs that are related directly to the successful acquisition of new or renewal insurance policies and investment contracts are deferred and recorded as an asset on the Consolidated Statements of Financial Position.

DAC related to property and casualty contracts is amortized into income as premiums are earned, typically over periods of six or twelve months for personal lines policies or generally one to five years for protection plans and other contracts (primarily related to finance and insurance products).

DAC related to traditional life and voluntary accident and health insurance is amortized over the premium paying period of the related policies in proportion to the estimated revenues on such business. Significant assumptions relating to estimated premiums, investment returns, as well as mortality, persistency and expenses to administer the business are established at the time the policy is issued and are generally not revised during the life of the policy. The assumptions for determining the timing and amount of DAC amortization are consistent with the assumptions used to calculate the reserve for life-contingent contract benefits. Any deviations from projected business in force resulting

from actual policy terminations differing from expected levels and any estimated premium deficiencies may result in a change to the rate of amortization in the period such events occur. Generally, the amortization periods for these policies approximate the estimated lives of the policies. The recovery of DAC is dependent upon the future profitability of the business. We periodically review the adequacy of reserves and recoverability of DAC for these policies using actual experience and current assumptions. Prior to fourth quarter 2017, we evaluated our traditional life insurance products and immediate annuities with life contingencies on an aggregate basis. In conjunction with the segment changes that occurred in the fourth quarter of 2017, traditional life insurance products, immediate annuities with life contingencies, and voluntary accident and health insurance products are reviewed individually. In the event actual experience and current assumptions are adverse compared to the original assumptions and a premium deficiency is determined to exist, any remaining unamortized DAC balance must be expensed to the extent not recoverable and a premium deficiency reserve may be required if the remaining

Application of Critical Accounting Estimates and Other Disclosures 2018 Form 10-K

DAC balance is insufficient to absorb the deficiency. In 2018, 2017 and 2016, our reviews concluded that no premium deficiency adjustments were necessary. For additional detail on reserve adequacy, see the Reserve for life-contingent contract benefits estimation section.

DAC related to interest-sensitive life insurance is amortized in proportion to the incidence of the total present value of gross profits, which includes both actual historical gross profits ("AGP") and estimated future gross profits ("EGP") expected to be earned over the estimated lives of the contracts. The amortization is net of interest on the prior period DAC balance using rates established at the inception of the contracts. Actual amortization periods generally range from 15-30 years; however, incorporating estimates of the rate of customer surrenders, partial withdrawals and deaths generally results in the majority of the DAC being amortized during the surrender charge period, which is typically 10-20 years for interest-sensitive life. The rate of DAC amortization is reestimated and adjusted by a cumulative charge or credit to income when there is a difference between the incidence of actual versus expected gross profits in a reporting period or when there is a change in total EGP.

AGP and EGP primarily consist of the following components: contract charges for the cost of insurance less mortality costs and other benefits (benefit margin); investment income and realized capital gains and losses less interest credited (investment margin); and surrender and other contract charges less maintenance expenses (expense margin). The principal assumptions for determining the amount of EGP are mortality, persistency, expenses, investment returns, including capital gains and losses on assets supporting contract liabilities, interest crediting rates to contractholders, and the effects of any hedges, and these assumptions are reasonably likely to have the greatest impact on the amount of DAC amortization. Changes in these assumptions can be offsetting and we are unable to reasonably predict their future movements or offsetting impacts over time.

Each reporting period, DAC amortization is recognized in proportion to AGP for that period adjusted for interest on the prior period DAC balance.

This amortization process includes an assessment of AGP compared to EGP, the actual amount of business remaining in force and realized capital gains and losses on investments supporting the product liability. The impact of realized capital gains and losses on amortization of DAC depends upon which product liability is supported by the assets that give rise to the gain or loss. If the AGP is greater than EGP in the period, but the total EGP is unchanged, the amount of DAC amortization will generally increase, resulting in a current period decrease to earnings. The opposite result generally occurs when the AGP is less than the EGP in the period, but the total EGP is unchanged. However, when DAC amortization or a component of gross profits for a quarterly period is potentially negative (which would result in an increase of the DAC balance) as a result of negative AGP, the specific facts and circumstances surrounding the potential negative amortization are considered to determine whether it is appropriate for recognition in the consolidated financial statements. Negative amortization is only recorded when the increased DAC balance is determined to be recoverable based on facts and circumstances. For products whose supporting investments are exposed to capital losses in excess of our expectations which may cause periodic AGP to become temporarily negative, EGP and AGP utilized in DAC amortization may be modified to exclude the excess capital losses. Annually, we review and update the assumptions underlying the projections of EGP, including mortality, persistency, expenses, investment returns, comprising investment income and realized capital gains and losses, interest crediting rates and the effect of any hedges, using our experience and industry experience. At each reporting period, we assess whether any revisions to assumptions used to determine DAC amortization are required. These reviews and updates may result in amortization acceleration or deceleration, which are referred to as "DAC unlocking". If the update of assumptions causes total EGP to increase, the rate of DAC amortization will generally decrease, resulting in a current period increase to earnings. A decrease to earnings generally occurs when the assumption update causes the total EGP to decrease.

Effect on DAC amortization of changes in assumptions relating to gross profit components

For the years ended December

(\$ in millions)	2018	2017	2016
Investment margin	\$10	\$12	\$(1)
Benefit margin	(11)	(23)	1
Expense margin	2	(2)	(2)
Net acceleration (deceleration)	\$1	\$(13)	\$(2)

In 2018, DAC amortization acceleration for changes in the investment margin component of EGP related to interest-sensitive life insurance and was due to lower projected investment returns. The deceleration related to benefit margin primarily related to interest-sensitive life insurance and was due to a decrease in projected mortality.

In 2017, DAC amortization acceleration for changes in the investment margin component of EGP related to interest-sensitive life insurance and was due to continued low interest rates and lower projected investment returns. The deceleration related to benefit margin primarily related to interest-sensitive life insurance and was due to a decrease in projected mortality.

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In 2016, DAC amortization deceleration for changes in the investment margin component of EGP related to interest-sensitive life insurance and was due to increased projected investment margins from a favorable asset portfolio mix. The acceleration related to benefit margin primarily related to interest-sensitive life insurance and was due to lower than expected persistency on non-guaranteed products. The expense margin deceleration related primarily to

variable life insurance and was due to a decrease in projected expenses.

The following table displays the sensitivity of reasonably likely changes in assumptions included in the gross profit components of investment margin or benefit margin to amortization of the DAC balance as of December 31, 2018. (\$ in millions)

Increase/(reduction)

(\$ in millions) Increase/(note in the investment margins of 25 basis points \$ 57

Decrease in future investment margins of 25 basis points (63)

Decrease in future life mortality by 1% \$ 15 Increase in future life mortality by 1% (16)

Any potential changes in assumptions discussed above are measured without consideration of correlation among assumptions. Therefore, it would be inappropriate to add them together in an attempt to estimate overall variability in amortization.

For additional detail related to DAC, see the Allstate Life Segment section of the MD&A.

Evaluation of goodwill for impairment Goodwill represents the excess of amounts paid for acquiring businesses over the fair value of the net assets acquired, less any impairment of goodwill recognized. Our goodwill reporting units are equivalent to our reportable segments: Allstate Protection, Service Businesses, Allstate Life and Allstate Benefits to which goodwill has been assigned.

Goodwill by reporting unit

As of December 31, (\$ in millions) 2018 2017 Allstate Protection \$810 \$810 Service Businesses 1.449 1.100 Allstate Life 175 175 Allstate Benefits 96 96 \$2,530 \$2,181 Total

Goodwill is recognized when acquired and allocated to reporting units based on which unit is expected to benefit from the synergies of the business combination. Goodwill is not amortized but is tested for impairment at least annually. We perform our annual goodwill impairment testing during the fourth quarter of each year based upon data as of the close of the third quarter. We also review goodwill for impairment whenever events or changes in circumstances, such as deteriorating or adverse market conditions, indicate that it is more likely than not that the carrying amount of goodwill may exceed its implied fair value. Goodwill impairment is measured and recognized as the amount by which a reporting unit's carrying value, including goodwill, exceeds its fair value, not to exceed the carrying amount of goodwill allocated to the reporting unit. The goodwill impairment analysis is performed at the reporting unit level which is equal to our reportable segments. The fair value of our goodwill reporting units exceeded their carrying values.

Upon acquisition, the purchase price of the acquired business is assumed to be its fair value. Subsequently, we estimate the fair value of our businesses in each goodwill reporting unit, utilizing a combination of widely accepted valuation techniques including a stock price and market capitalization analysis, discounted cash flow ("DCF") calculations and an estimate of a business's fair value using market to book multiples derived from peer company analysis. The stock price and market capitalization analysis takes into consideration the quoted market price of our outstanding common stock and includes a control premium, derived from relevant historical acquisition activity, in

determining the estimated fair value of the consolidated entity before allocating that fair value to individual reporting units. The DCF analysis utilizes long term assumptions for revenues, investment income, benefits, claims, other operating expenses and income taxes to produce projections of both income and cash flows available for dividends that are present valued using weighted average cost of capital. Market to book multiples represent the mean market to book multiple for selected peer companies with operations similar to our goodwill reporting units to which the multiple is applied. The outputs from these methods are weighted based on the nature of the business and the relative amount of market observable assumptions supporting the estimates. The computed values are then weighted to reflect the fair value estimate based on the specific attributes of each goodwill reporting unit.

Estimating the fair value of reporting units is a subjective process that involves the use of significant estimates by management. Changes in market inputs or other events impacting the fair value of these businesses, including discount rates, operating results, investment returns, strategies and growth rate assumptions or increases in the level of equity required to support these businesses, could result in goodwill impairments, resulting in a charge to income. Most of our goodwill reporting units are comprised of a combination of legacy and acquired businesses and as a result have substantial internally generated and unrecognized intangibles and fair values that significantly exceed their carrying values. Our Service Businesses goodwill reporting unit is more heavily comprised of newly acquired businesses and as

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a result does not have a significant excess of fair value over its carrying value. Therefore, this reporting unit may be more susceptible to goodwill impairment based on changes to growth or margin assumptions.

The most significant assumptions utilized in the determination of the estimated fair value of the Service Businesses reporting unit are the earnings growth rate and discount rate. The growth rate utilized in our fair value estimates is consistent with our plans to grow these businesses rapidly over the near-term with more moderated growth rates in later years.

The discount rate, which is consistent with the weighted average cost of capital expected by a market participant, is based upon industry specific required rates of return, including consideration of both debt and equity components of the capital structure. Our discount rate may be impacted by changes in the risk free rate, cost of debt, equity risk premium and entity specific risks.

Changes in our growth assumptions, including the risk of loss of key customers, or adverse changes in the discount rates could result in a decline in fair value and result in a goodwill impairment charge.

Reserve for property and casualty insurance claims and claims expense estimation. Reserves are established to provide for the estimated costs of paying claims and claims expenses under insurance policies we have issued. Underwriting results are significantly influenced by estimates of property and casualty insurance claims and claims expense reserves. These reserves are an estimate of amounts necessary to settle all outstanding claims, including IBNR, as of the financial statement date.

Characteristics of reserves Reserves are established independently of business segment management for each business segment and line of business based on estimates of the ultimate cost to settle claims, less losses that have been paid. The significant lines of business are auto, homeowners, and other personal lines for Allstate Protection, and asbestos, environmental, and other discontinued lines for Discontinued Lines and Coverages. Allstate Protection's claims are typically reported promptly with relatively little reporting lag between the date of occurrence and the date the loss is reported. Auto and homeowners liability losses generally take an average of about two years to settle, while auto physical damage, homeowners property and other personal lines have an average settlement time of less than one year. Discontinued Lines and Coverages involve long-tail losses, such as those related to asbestos and environmental claims, which often involve substantial reporting lags and extended times to settle.

Reserves are the difference between the estimated ultimate cost of losses incurred and the amount of paid losses as of the reporting date. Reserves are estimated for both reported and unreported claims, and include estimates of all expenses associated with processing and settling all incurred claims. We update most of our reserve estimates quarterly and as new information becomes available or as events emerge that may affect the

resolution of unsettled claims. Changes in prior reserve estimates (reserve reestimates), which may be material, are determined by comparing updated estimates of ultimate losses to prior estimates, with the differences recorded as property and casualty insurance claims and claims expense in the Consolidated Statements of Operations in the period such changes are determined. Estimating the ultimate cost of claims and claims expenses is an inherently uncertain and complex process involving a high degree of judgment and is subject to the evaluation of numerous variables. The actuarial methods used to develop reserve estimates Reserve estimates are derived by using several different actuarial estimation methods that are variations on one primary actuarial technique. The actuarial technique is known as a "chain ladder" estimation process in which historical loss patterns are applied to actual paid losses and reported losses (paid losses plus individual case reserves established by claim adjusters) for an accident year or a report year to create an estimate of how losses are likely to develop over time. An accident year refers to classifying claims based on the year in which the claims occurred. A report year refers to classifying claims based on the year in which the claims are reported. Both classifications are used to prepare estimates of required reserves for payments to be made in the future. The key assumptions affecting our reserve estimates comprise data elements including claim counts, paid losses, case reserves, and development factors calculated with this data.

See Discontinued and Lines and Coverages reserve estimates section for specific disclosures of industry and actuarial best practices for this segment.

In the chain ladder estimation technique, a ratio (development factor) is calculated which compares current period results to results in the prior period for each accident year. A three-year or two-year average development factor,

based on historical results, is usually multiplied by the current period experience to estimate the development of losses of each accident year into the next time period. The development factors for the future time periods for each accident year are compounded over the remaining future periods to calculate an estimate of ultimate losses for each accident year. The implicit assumption of this technique is that an average of historical development factors is predictive of future loss development, as the significant size of our experience database achieves a high degree of statistical credibility in actuarial projections of this type. The effects of inflation are implicitly considered in the reserving process, the implicit assumption being that a multi-year average development factor includes an adequate provision. The development factor estimation methodology may require modification when data changes due to changing claim reporting practices, changing claim settlement patterns, external regulatory or financial influences, or contractual coverage changes. In these situations, actuarial estimation techniques are applied to appropriately modify the "chain ladder" assumptions. These actuarial techniques are

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necessary to analyze the effects of changing loss data to develop modified development factor selections. The actuarial estimation techniques include exclusion of unusual losses or aberrations and adjustment of historical data to present conditions. Actuarially modified patterns of development are calculated with the adjusted historical data. Actuarial judgment is then applied to make appropriate development factor assumptions needed to develop a best estimate of gross ultimate losses. These developments are discussed further in the Allstate brand loss ratio disclosures in the Allstate Protection Segment section of the MD&A.

How reserve estimates are established and updated Reserve estimates are developed at a very detailed level, and the results of these numerous micro-level best estimates are aggregated to form a consolidated reserve estimate. For example, over one thousand actuarial estimates of the types described above are prepared each quarter to estimate losses for each line of insurance, major components of losses (such as coverages and perils), major states or groups of states and for reported losses and IBNR. The actuarial methods described above are used to analyze the settlement patterns of claims by determining the development factors for specific data elements that are necessary components of a reserve estimation process. Development factors are calculated quarterly and periodically throughout the year for data elements such as claim counts reported and settled, paid losses, and paid losses combined with case reserves. The calculation of development factors from changes in these data elements also impacts claim severity trends. The historical development patterns for these data elements are used as the assumptions to calculate reserve estimates. Often, several different estimates are prepared for each detailed component, incorporating alternative analyses of changing claim settlement patterns and other influences on losses, from which we select our best estimate for each component, occasionally incorporating additional analyses and actuarial judgment, as described above. These micro-level estimates are not based on a single set of assumptions. Actuarial judgments that may be applied to these components of certain micro-level estimates generally do not have a material impact on the consolidated level of reserves. Moreover, this detailed

micro-level process does not permit or result in a compilation of a company-wide roll up to generate a range of needed loss reserves that would be meaningful. Based on our review of these estimates, our best estimate of required reserves for each state/line/coverage component is recorded for each accident year, and the required reserves for each component are summed to create the reserve balance carried on our Consolidated Statements of Financial Position. Reserves are reestimated quarterly and periodically throughout the year, by combining historical results with current actual results to calculate new development factors. This process continuously incorporates the historic and latest actual trends, and other underlying changes in the data elements used to calculate reserve estimates. New development factors are likely to differ from previous development factors used in prior reserve estimates because actual results (claims reported or settled, losses paid, or changes to case reserves) occur differently than the implied assumptions contained in the previous development factor calculations. If claims reported, paid losses, or case reserve changes are greater or less than the levels estimated by previous development factors, reserve reestimates increase or decrease. When actual development of these data elements is different than the historical development pattern used in a prior period reserve estimate, a new reserve is determined. The difference between indicated reserves based on new reserve estimates and recorded reserves (the previous estimate) is the amount of reserve reestimate and is recognized as an increase or decrease in claims and claims expense in the Consolidated Statements of Operations. Total net reserve reestimates, after-tax, impact on net income applicable to common shareholders were 9.6% favorable in 2018, 10.6% favorable in 2017 and 0.6% favorable in 2016. The 3-year average of net reserve reestimates as a percentage of total reserves was a favorable 1.9% for Allstate Protection, an unfavorable 6.8% for Discontinued Lines and Coverages and an unfavorable 2.5% for Service Businesses, each of these results being consistent within a reasonable actuarial tolerance for the respective businesses. A more detailed discussion of reserve reestimates is presented in the Claims and Claims Expense Reserves section of the MD&A.

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Net claims and claims expense reserves by segment and line of business

	As of December 31,		
(\$ in millions)	2018	2017	2016
Allstate Protection			
Auto	\$14,378	\$14,051	\$13,530
Homeowners	2,157	2,205	1,989
Other lines	2,290	2,105	2,078
Total Allstate Protection	18,825	18,361	17,597
Discontinued Lines and Coverages			
Asbestos	866	884	912
Environmental	170	166	179
Other discontinued lines	355	357	354
Total Discontinued Lines and Coverages	1,391	1,407	1,445
Total Service Businesses	52	86	24
Total net claims and claims expense reserves	\$20,268	\$19,854	\$19,066
Asbestos Environmental Other discontinued lines Total Discontinued Lines and Coverages Total Service Businesses	170 355 1,391 52	166 357 1,407 86	179 354 1,445 24

Allstate Protection reserve estimate

Factors affecting reserve estimates Reserve estimates are developed based on the processes and historical development trends described above. These estimates are considered in conjunction with known facts and interpretations of circumstances and factors including our experience with similar cases, actual claims paid, historical trends involving claim payment patterns and pending levels of unpaid claims, loss management programs, product mix and contractual terms, changes in law and regulation, judicial decisions, and economic conditions. When we experience changes of the type previously mentioned, we may need to apply actuarial judgment in the determination and selection of development factors considered more reflective of the new trends, such as combining shorter or longer periods of historical results with current actual results to produce development factors based on two-year, three-year, or longer development periods to reestimate our reserves. For example, if a legal change is expected to have a significant impact on the development of claim severity for a coverage which is part of a particular line of insurance in a specific state, actuarial judgment is applied to determine appropriate development factors that will most accurately reflect the expected impact on that specific estimate. Another example would be when a change in economic conditions is expected to affect the cost of repairs to damaged autos or property for a particular line, coverage, or state, actuarial judgment is applied to determine appropriate development factors to use in the reserve estimate that will most accurately reflect the expected impacts on severity development.

As claims are reported, for certain liability claims of sufficient size and complexity, the field adjusting staff establishes case reserve estimates of ultimate cost, based on their assessment of facts and circumstances related to each individual claim. For other claims which occur in large volumes and settle in a relatively short time frame, it is not practical or efficient to set case reserves for each claim, and a statistical case reserve is set for these claims based on estimation techniques described above. In the normal course of business, we may also supplement our claims processes by utilizing third party adjusters, appraisers, engineers, inspectors, and other professionals and information sources to

assess and settle catastrophe and non-catastrophe related claims.

Historically, the case reserves set by the field adjusting staff have not proven to be an entirely accurate estimate of the ultimate cost of claims. To provide for this, a development reserve is estimated using the processes described above, and allocated to pending claims as a supplement to case reserves. Typically, the case, including statistical case, and supplemental development reserves comprise about 90% of total reserves.

Another major component of reserves is IBNR, which comprises about 10% of total reserves. IBNR can be a small percentage of reserves for relatively short-term claims, such as auto physical damage claims, or a large percentage of reserves for claims that have uncertain payout requirements over a long period of time, such as auto injury and MCCA claims. All major components of reserves are affected by changes in claim frequency as well as claim severity.

Generally, the initial reserves for a new accident year are established based on actual claim frequency and severity assumptions for different business segments, lines and coverages based on historical relationships to relevant inflation indicators. Reserves for prior accident years are statistically determined using processes described above. Changes in auto claim frequency may result from changes in mix of business, the rate of distracted driving, miles driven or other macroeconomic factors. Changes in auto current year claim severity are generally influenced by inflation in the medical and auto repair sectors of the economy and the effectiveness and efficiency of our claim practices. We mitigate these effects through various loss management programs. Injury claims are affected largely by medical cost inflation while physical damage claims are affected largely by auto repair cost inflation and used car prices. For auto physical damage coverages, we monitor our rate of increase in average cost per claim against the auto maintenance, repair, parts and equipment price indices. We believe our claim settlement initiatives, such as improvements to the claim review and settlement process, the use of special investigative units to detect fraud and handle suspect claims, litigation management and defense strategies, as well as various other loss management

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initiatives underway, contribute to the mitigation of injury and physical damage severity trends.

Changes in homeowners current year claim severity are generally influenced by inflation in the cost of building materials, the cost of construction and property repair services, the cost of replacing home furnishings and other contents, the types of claims that qualify for coverage, deductibles, other economic and environmental factors and the effectiveness and efficiency of our claim practices. We employ various loss management programs to mitigate the effect of these factors.

As loss experience for the current year develops for each type of loss, it is monitored relative to initial assumptions until it is judged to have sufficient statistical credibility. From that point in time and forward, reserves are reestimated using statistical actuarial processes to reflect the impact actual loss trends have on development factors incorporated into the actuarial estimation processes. Statistical credibility is usually achieved by the end of the first calendar year; however, when trends for the current accident year exceed initial assumptions sooner, they are usually determined to be credible, and reserves are increased accordingly.

The very detailed processes for developing reserve estimates, and the lack of a need and existence of a common set of assumptions or development factors, limits aggregate reserve level testing for variability of data elements. However, by applying standard actuarial methods to consolidated historic accident year loss data for major loss types, comprising auto injury losses, auto physical damage losses and homeowner losses, we develop variability analyses consistent with the way we develop reserves by measuring the potential variability of development factors, as described in the section titled "Potential Reserve Estimate Variability" below.

Causes of reserve estimate uncertainty Since reserves are estimates of unpaid portions of claims and claims expenses that have occurred, including IBNR losses, the establishment of appropriate reserves, including reserves for catastrophe losses, requires regular reevaluation and refinement of estimates to determine our ultimate loss estimate. At each reporting date, the highest degree of uncertainty in estimates for most of our losses from ongoing businesses arise from claims remaining to be settled for the current accident year and the most recent preceding accident year. The greatest degree of uncertainty exists in the current accident year because the current accident year contains the greatest proportion of losses that have not been reported or settled but must be estimated as of the current reporting date. Most of these losses relate to damaged property such as automobiles and homes, and medical care for injuries from accidents. During the first year after the end of an accident year, a large portion of the total losses for that accident year are settled. When accident year losses paid through the end of the first year following the initial accident year are incorporated into updated actuarial estimates, the

trends inherent in the settlement of claims emerge more clearly. Consequently, this is the point in time at which we tend to make our largest reestimates of losses for an accident year. After the second year, the losses that we pay for an accident year typically relate to claims that are more difficult to settle, such as those involving serious injuries or litigation. Private passenger auto insurance provides a good illustration of the uncertainty of future loss estimates: our typical annual percentage payout of reserves remaining at December 31 for an accident year is approximately 45% in the first year after the end of the accident year, 20% in the second year, 15% in the third year, 10% in the fourth year, and the remaining 10% thereafter.

Reserves for catastrophe losses Catastrophe losses are an inherent risk of the property and casualty insurance industry that have contributed, and will continue to contribute, to potentially material year-to-year fluctuations in our results of operations and financial position. We define a "catastrophe" as an event that produces pre-tax losses before reinsurance in excess of \$1 million and involves multiple first party policyholders, or a winter weather event that produces a number of claims in excess of a preset, per-event threshold of average claims in a specific area, occurring within a certain amount of time following the event. Catastrophes are caused by various natural events including high winds, winter storms and freezes, tornadoes, hailstorms, wildfires, tropical storms, hurricanes, earthquakes and volcanoes. We are also exposed to man-made catastrophic events, such as certain types of terrorism or industrial accidents. The nature and level of catastrophes in any period cannot be reliably predicted.

The estimation of claims and claims expense reserves for catastrophe losses also comprises estimates of losses from reported claims and IBNR, primarily for damage to property. In general, our estimates for catastrophe reserves are based on claim adjuster inspections and the application of historical loss development factors as described above.

However, depending on the nature of the catastrophe, the estimation process can be further complicated. For example, for hurricanes, complications could include the inability of insureds to promptly report losses, limitations placed on claims adjusting staff affecting their ability to inspect losses, determining whether losses are covered by our homeowners policy (generally for damage caused by wind or wind driven rain) or specifically excluded coverage caused by flood, estimating additional living expenses, and assessing the impact of demand surge, exposure to mold damage, and the effects of numerous other considerations, including the timing of a catastrophe in relation to other events, such as at or near the end of a financial reporting period, which can affect the availability of information needed to estimate reserves for that reporting period. In these situations, we may need to adapt our practices to accommodate these circumstances in order to determine a best estimate of our losses from a catastrophe. For example, to complete estimates for certain areas affected by catastrophes not yet inspected by our claims adjusting staff, or where we believed our historical loss

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development factors were not predictive, we rely on analysis of actual claim notices received compared to total PIF, as well as visual, governmental and third party information, including aerial photos using drones and satellites, area observations, and data on wind speed and flood depth to the extent available.

Potential reserve estimate variability The aggregation of numerous micro-level estimates for each business segment, line of insurance, major components of losses (such as coverages and perils), and major states or groups of states for reported losses and IBNR forms the reserve liability recorded in the Consolidated Statements of Financial Position. Because of this detailed approach to developing our reserve estimates, there is not a single set of assumptions that determines our reserve estimates at the consolidated level. Given the numerous micro-level estimates for reported losses and IBNR, management does not believe the processes that we follow will produce a statistically credible or reliable actuarial reserve range that would be meaningful. Reserve estimates, by their very nature, are very complex to determine and subject to significant judgment, and do not represent an exact determination for each outstanding claim. Accordingly, as actual claims, paid losses, and/or case reserve results emerge, our estimate of the ultimate cost to settle will be different than previously estimated.

To develop a statistical indication of potential reserve variability within reasonably likely possible outcomes, an actuarial technique (stochastic modeling) is applied to the countrywide consolidated data elements for paid losses and paid losses combined with case reserves separately for injury losses, auto physical damage losses, and homeowners losses excluding catastrophe losses. Based on the combined historical variability of the development factors calculated for these data elements, an estimate of the standard error or standard deviation around these reserve estimates is calculated within each accident year for the last twelve years for each type of loss. The variability of these reserve estimates within one standard deviation of the mean (a measure of frequency of dispersion often viewed to be an acceptable level of accuracy) is believed by management to represent a reasonable and statistically probable measure of potential variability. Based on our products and coverages, historical experience, the statistical credibility of our extensive data and stochastic modeling of actuarial chain ladder methodologies used to develop reserve estimates, we estimate that the potential variability of our Allstate Protection reserves, excluding reserves for catastrophe losses, within a reasonable probability of other possible outcomes, may be approximately plus or minus 4%, or plus or minus \$750 million in net income applicable to common shareholders. A lower level of variability exists for auto injury losses, which comprise approximately 80% of reserves, due to their relatively stable development patterns over a longer duration of time required to settle claims. Other types of losses, such as auto physical damage, homeowners losses and other personal lines losses, which comprise about 20% of reserves, tend to have greater variability but are

settled in a much shorter period of time. Although this evaluation reflects most reasonably likely outcomes, it is possible the final outcome may fall below or above these amounts. Historical variability of reserve estimates is reported in the Claims and Claims Expense Reserves section of the MD&A.

Reserves for Michigan and New Jersey unlimited personal injury protection. Claims and claims expense reserves include reserves for Michigan mandatory unlimited personal injury protection coverage to insureds involved in qualifying motor vehicle accidents. The administration of this program is through the MCCA, a state-mandated, non-profit association of which all insurers actively writing automobile coverage in Michigan are members. The process employed to estimate MCCA covered losses involves a number of activities including the comprehensive review and interpretation of MCCA actuarial reports, other MCCA members' reports and our personal injury protection loss trends which have increased in severity over time. A significant portion of incurred claim reserves can be attributed to a small number of catastrophic claims and thus a large portion of the recoverable is similarly concentrated. We conduct comprehensive claim file reviews to develop case reserve type estimates of specific claims, which have increased our view of future claim development and longevity of claimants. Each year, we update the actuarial estimate of our ultimate reserves and recoverables. We report our paid and unpaid claims based on MCCA requirements. The MCCA has its own reserving estimates based on its own reserve methodologies, which may not align with our estimations. The MCCA does not provide member companies with its estimate of a company's claim costs. We continue to update each comprehensive claim file case reserve estimate when there is a significant change in the status of the claimant, or once every three years if there have been no significant changes.

We provide similar personal injury protection coverage in New Jersey for auto policies issued or renewed in New Jersey prior to 1991 that is administered by PLIGA. We use similar actuarial estimating techniques as for the MCCA exposures to estimate loss reserves for unlimited personal injury protection coverage for policies covered by PLIGA. We continue to update our estimates for these claims as the status of claimant's changes. However, unlimited coverage was no longer offered after 1991, therefore no new claimants are being added.

Reserve estimates are confidential and proprietary and by their nature are very complex to determine and subject to significant judgments. Reserve estimates do not represent an exact determination for each outstanding claim. Claims may be subject to litigation. As actual claims, paid losses and/or case reserve results emerge, our estimate of the ultimate cost to settle may be materially greater or less than previously estimated amounts.

Adequacy of reserve estimates We believe our net claims and claims expense reserves are appropriately

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established based on available methodologies, facts, technology, laws and regulations. We calculate and record a single best reserve estimate, in conformance with generally accepted actuarial standards and practices, for each line of insurance, its components (coverages and perils) and state, for reported losses and for IBNR losses, and as a result we believe that no other estimate is better than our recorded amount. Due to the uncertainties involved, the ultimate cost of losses may vary materially from recorded amounts, which are based on our best estimates.

Discontinued Lines and Coverages reserve estimates

Characteristics of Discontinued Lines exposure Our exposure to asbestos, environmental and other discontinued lines claims arise principally from assumed reinsurance coverage written during the 1960s through the mid-1980s, including reinsurance on primary insurance written on large U.S. companies, and from direct excess commercial insurance written from 1972 through 1985, including substantial excess general liability coverages on large U.S. companies. Additional exposure stems from direct primary commercial insurance written during the 1960s through the mid-1980s. Asbestos claims relate primarily to bodily injuries asserted by claimants who were exposed to asbestos or products containing asbestos. Environmental claims relate primarily to pollution and related clean-up costs. Other discontinued lines exposures primarily relate to general liability and product liability mass tort claims, such as those for medical devices and other products, workers' compensation claims and claims for various other coverage exposures other than asbestos and environmental.

In 1986, the general liability policy form used by us and others in the property and casualty industry was amended to introduce an "absolute pollution exclusion," which excluded coverage for environmental damage claims, and to add an asbestos exclusion. Most general liability policies issued prior to 1987 contain annual aggregate limits for product liability coverage. General liability policies issued in 1987 and thereafter contain annual aggregate limits for product liability coverage and annual aggregate limits for all coverages. Our experience to date is that these policy form changes have limited the extent of our exposure to environmental and asbestos claim risks.

Our exposure to liability for asbestos, environmental and other discontinued lines losses manifests differently depending on whether it arises from assumed reinsurance coverage, direct excess commercial insurance or direct primary commercial insurance. The direct insurance coverage we provided that covered asbestos, environmental and other discontinued lines was substantially "excess" in nature.

Direct excess commercial insurance and reinsurance involve coverage written by us for specific layers of protection above retentions and other insurance plans. The nature of excess coverage and reinsurance provided to other insurers limits our exposure to loss to specific layers of protection in excess of policyholder retention on primary insurance

plans. Our exposure is further limited by the significant reinsurance that we had purchased on our direct excess

Our assumed reinsurance business involved writing generally small participations in other insurers' reinsurance programs. The reinsured losses in which we participate may be a proportion of all eligible losses or eligible losses in excess of defined retentions. The majority of our assumed reinsurance exposure, approximately 85%, is for excess of loss coverage, while the remaining 15% is for pro-rata coverage.

Our direct primary commercial insurance business did not include coverage to large asbestos manufacturers. This business comprises a cross section of policyholders engaged in many diverse business sectors throughout the country. How reserve estimates are established and updated We conduct an annual review in the third quarter to evaluate and establish asbestos, environmental and other discontinued lines reserves. Changes to reserves are recorded in the reporting period in which they are determined. Using established industry and actuarial best practices and assuming no change in the regulatory or economic environment, this detailed and comprehensive methodology determines asbestos reserves based on assessments of the characteristics of exposure (i.e. claim activity, potential liability, jurisdiction, products versus non-products exposure) presented by individual policyholders, and determines environmental reserves based on assessments of the characteristics of exposure (i.e. environmental damages, respective shares of liability of potentially responsible parties, appropriateness and cost of remediation) to pollution and related clean-up costs. The number and cost of these claims are affected by advertising by trial lawyers seeking asbestos plaintiffs, and entities with asbestos exposure seeking bankruptcy protection as a result of asbestos liabilities, initially causing a delay in the reporting of claims, often followed by an acceleration and an increase in claims and claims expenses as settlements

occur.

After evaluating our insureds' probable liabilities for asbestos and/or environmental claims, we evaluate our insureds' coverage programs for such claims. We consider our insureds' total available insurance coverage, including the coverage we issued. We also consider relevant judicial interpretations of policy language and applicable coverage defenses or determinations, if any.

Evaluation of both the insureds' estimated liabilities and our exposure to the insureds depends heavily on an analysis of the relevant legal issues and litigation environment. This analysis is conducted by our specialized claims adjusting staff and legal counsel. Based on these evaluations, case reserves are established by claims adjusting staff and actuarial analysis is employed to develop an IBNR reserve, which includes estimated potential reserve development and claims that have occurred but have not been reported. As of December 31, 2018 and 2017, IBNR was 50% and

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53%, respectively, of combined net asbestos and environmental reserves.

For both asbestos and environmental reserves, we also evaluate our historical direct net loss and expense paid and incurred experience to assess any emerging trends, fluctuations or characteristics suggested by the aggregate paid and incurred activity.

Other Discontinued Lines and Coverages

Characteristics of other exposures Other mass torts includes direct excess commercial and

reinsurance general liability coverage provided for cumulative injury losses other than asbestos and environmental. Workers' compensation and commercial and other include run-off from discontinued direct primary, direct excess commercial and reinsurance commercial insurance operations of various coverage exposures other than asbestos and environmental. Reserves are based on considerations similar to those described above, as they relate to the characteristics of specific individual coverage exposures.

Reserves for other discontinued lines

As of December

31,

(\$ in millions) 2018 2017 2016 Other mass torts \$148 \$150 \$142 Workers' compensation 69 73 76 Commercial and other 138 134 136 Other discontinued lines \$355 \$357 \$354

Potential reserve estimate variability Establishing Discontinued Lines and Coverages net loss reserves for asbestos, environmental and other discontinued lines claims is subject to uncertainties that are much greater than those presented by other types of property and casualty claims. Among the complications are lack of historical data, long reporting delays, uncertainty as to the number and identity of insureds with potential exposure and unresolved legal issues regarding policy coverage; unresolved legal issues regarding the determination, availability and timing of exhaustion of policy limits; plaintiffs' evolving and expanding theories of liability; availability and collectability of recoveries from reinsurance; retrospectively determined premiums and other contractual agreements; estimates of the extent and timing of any contractual liability; the impact of bankruptcy protection sought by various asbestos producers and other asbestos defendants; and other uncertainties. There are also complex legal issues concerning the interpretation of various insurance policy provisions and whether those losses are covered, or were ever intended to be covered, and could be recoverable through retrospectively determined premium, reinsurance or other contractual agreements. Courts have reached different and sometimes inconsistent conclusions as to when losses are deemed to have occurred and which policies provide coverage; what types of losses are covered; whether there is an insurer obligation to defend; how policy limits are determined; how policy exclusions and conditions are applied and interpreted; and whether clean-up costs represent insured property damage. Our reserves for asbestos and environmental exposures could be affected by tort reform, class action litigation, and other potential legislation and judicial decisions. Environmental exposures could also be affected by a change in the existing federal Superfund law and similar state statutes. There can be no assurance that any reform legislation will be enacted or that any such legislation will provide for a fair, effective and cost-efficient system for settlement of asbestos or environmental claims. We believe these issues are not likely to be resolved in the near future, and the ultimate costs may vary materially from the

amounts currently recorded resulting in material changes in loss reserves. Historical variability of reserve estimates is demonstrated in the Claims and Claims Expense Reserves section of the MD&A.

Adequacy of reserve estimates Management believes its net loss reserves for environmental, asbestos and other discontinued lines exposures are appropriately established based on available facts, technology, laws, regulations, and assessments of other pertinent factors and characteristics of exposure (i.e. claim activity, potential liability, jurisdiction, products versus non-products exposure) presented by individual policyholders, assuming no change in the legal, legislative or economic environment. Due to the uncertainties and factors described above, management

believes it is not practicable to develop a meaningful range for any such additional net loss reserves that may be required.

Further discussion of reserve estimates For further discussion of these estimates and quantification of the impact of reserve estimates, reserve reestimates and assumptions, see Notes 8 and 14 of the consolidated financial statements and the Claims and Claims Expense Reserves section of the MD&A.

Reserve for life-contingent contract benefits estimation. Due to the long term nature of traditional life insurance, life-contingent immediate annuities and voluntary accident and health insurance products, benefits are payable over many years; accordingly, the reserves are calculated as the present value of future expected benefits to be paid, reduced by the present value of future expected net premiums. Long-term actuarial assumptions of future investment yields, mortality, morbidity, policy terminations and expenses are used when establishing the reserve for life-contingent contract benefits payable under these insurance policies. These assumptions, which for traditional life insurance are applied using the net level premium method, include provisions for adverse deviation and generally vary by characteristics such as type of coverage, year of issue and policy duration. Future investment yield assumptions are determined

2018 Form 10-K Application of Critical Accounting Estimates and Other Disclosures

based upon prevailing investment yields as well as estimated reinvestment yields. Mortality, morbidity and policy termination assumptions are based on our experience and industry experience. Expense assumptions include the estimated effects of inflation and expenses to be incurred beyond the premium-paying period. These assumptions are established at the time the policy is issued, are consistent with assumptions for determining DAC amortization for these policies, and are generally not changed during the policy coverage period. However, if actual experience emerges in a manner that is significantly adverse relative to the original assumptions, adjustments to DAC or reserves may be required resulting in a charge to earnings which could have a material effect on our operating results and financial condition.

We periodically review the adequacy of reserves and recoverability of DAC for these policies using actual experience and current assumptions. In the event actual experience and current assumptions are adverse compared to the original assumptions and a premium deficiency is determined to exist, any remaining unamortized DAC balance must be expensed to the extent not recoverable and the establishment of a premium deficiency reserve may be required. Prior to fourth quarter 2017, we evaluated our traditional life insurance products and immediate annuities with life contingencies on an aggregate basis. In conjunction with the segment changes that occurred in the fourth quarter of 2017, traditional life insurance products, immediate annuities with life contingencies, and voluntary accident and health insurance are reviewed individually. In 2018, 2017 and 2016, our reviews concluded that no premium deficiency

adjustments were necessary. As of December 31, 2018, traditional life insurance and accident and health insurance both have a substantial sufficiency. As of December 31, 2018, there is marginal sufficiency in the evaluation of immediate annuities with life contingencies which has been adversely impacted primarily by sub-standard structured settlement mortality expectations. The sufficiency represents approximately 4% of applicable reserves for Allstate Annuities as of December 31, 2018. Additional reserves may be required in future periods if the evaluation results in a premium deficiency.

In 2016, we completed a mortality study for our structured settlement annuities with life contingencies. The study indicated that annuitants are living longer and receiving benefits for a longer period than originally estimated due to medical advances and access to medical care. The results of the study were included in the premium deficiency and profits followed by losses evaluations as of December 31, 2016, and no adjustments were recognized. In 2016, there was a favorable change in the long-term investment yield assumptions due to investment strategy changes to increase performance-based investments and equity securities. The favorable impact of higher long-term investment yield assumptions more than offset the impact of unfavorable mortality assumptions. The investment strategy changes for immediate annuities are discussed further in the Allstate Annuities Segment section of the MD&A.

The following table displays the sensitivity of changes in the future investment yield assumption included in the annuity premium deficiency evaluation to the sufficiency balance as of December 31, 2018.

(\$ in millions)	Increase/(reduction) in sufficiency	applicable reserves
Increase in future investment yields of 25 basis points	\$198	3%
Decrease in future investment yields of 25 basis points	\$(205)	(3)%

We also review these policies for circumstances where projected profits would be recognized in early years followed by projected losses in later years. In 2018, 2017 and 2016, our reviews concluded that there were no projected losses following projected profits in each long-term projection.

We will continue to monitor the experience of our traditional life insurance and immediate annuities. We anticipate that mortality, investment and reinvestment yields, and policy terminations are the factors that would be most likely to require premium deficiency adjustments to these reserves or related DAC. Mortality rates and investment and reinvestment yields are the factors that would be most likely to require a profits followed by losses liability accrual.

For further detail on the reserve for life-contingent contract benefits, see Note 9 of the consolidated financial statements.

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Regulation and Legal Proceedings

We are subject to extensive regulation and we are involved in various legal and regulatory actions, all of which have an effect on specific aspects of our business. For a detailed discussion of the legal and regulatory actions in which we are involved, see Note 14 of the consolidated financial statements.

Pending Accounting Standards

There are several pending accounting standards that we have not implemented because the implementation date has not yet occurred. For a discussion of these pending standards, see Note 2 of the consolidated financial statements. The effect of implementing certain accounting standards on our financial results and financial condition is often based in part on market conditions at the time of implementation of the standard and other factors we are unable to determine prior to implementation. For this reason, we are sometimes unable to estimate the effect of certain pending accounting standards until the relevant authoritative body finalizes these standards or until we implement them.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk Information required for Item 7A is incorporated by reference to the material under the caption "Market Risk" in Part II, Item 7 of this report.

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The Allstate Corporation and Subsidiaries Consolidated Statements of Operations			
	Years En	ided Decen	nber 31,
(\$ in millions, except per share data)	2018	2017	2016
Revenues			
Property and casualty insurance premiums (net of reinsurance ceded and indemnification programs of \$1,016, \$971 and \$987)	\$34,048	\$32,300	\$31,307
Life premiums and contract charges (net of reinsurance ceded of \$290, \$303 and \$309)	2,465 939	2,378 883	2,275 865
	3,240	3,401	3,042
Realized capital gains and losses:			
			(313
		,	10
			(303
	` ') 595) 445	213 (90
	39,815	39,407	37,399
Total Tevenues	37,013	37,107	31,377
Costs and expenses			
Property and casualty insurance claims and claims avpage	22,839	21,929	22,221
	1,973	1,923	1,857
Interest credited to contractholder funds (net of reinsurance ceded of \$24, \$25 and \$26)		690	726
Amortization of deferred policy acquisition costs	5,222	4,784	4,550
Operating costs and expenses	5,869	5,442	4,939
Amortization of purchased intangible assets	105	99	32
Restructuring and related charges	83	109	30
Goodwill impairment		125	
Interest expense	332	335	295
Total costs and expenses	37,077	35,436	34,650
Gain on disposition of operations	6	20	5
Income from operations before income tax expense	2,744	3,991	2,754
Income tax expense	492	802	877
Net income	2,252	3,189	1,877
Preferred stock dividends	148	116	116
Net income applicable to common shareholders	\$2,104	\$3,073	\$1,761
Weighted average common shares - Basic	\$6.05 347.8 \$5.96	\$8.49 362.0 \$8.36	\$4.72 372.8 \$4.67

Weighted average common shares - Diluted

353.2

367.8

377.3

See notes to consolidated financial statements.

2018 Form 10-K Financial Statements

The Allstate C	Corporation a	and Subsidiaries	
Consolidated	Statements o	of Comprehensive	Income

Consolidated Statements of Complehensive income				
	Years Ended December			
	31,			
(\$ in millions)	2018	2017	2016	
Net income	\$2,252	\$3,189	\$1,877	7
Other comprehensive (loss) income, after-tax				
Changes in:				
Unrealized net capital gains and losses	(754	319	433	
Unrealized foreign currency translation adjustments	(55	47	10	
Unrecognized pension and other postretirement benefit cost	(144	307	(104)
Other comprehensive (loss) income, after-tax	(953	673	339	
Comprehensive income	\$1,299	\$3,862	\$2,216	5

Financial Statements 2018 Form 10-K

The Allstate Corporation and Subsidiaries Consolidated Statements of Financial Position

Consondated Statements of Financial Position	ъ .	0.1
	December	•
(\$ in millions, except par value data)	2018	2017
Assets		
Investments		
Fixed income securities, at fair value (amortized cost \$57,134 and \$57,525)	\$57,170	\$58,992
Equity securities, at fair value (cost \$4,489 and \$5,461)	5,036	6,621
Mortgage loans	4,670	4,534
Limited partnership interests	7,505	6,740
Short-term, at fair value (amortized cost \$3,027 and \$1,944)	3,027	1,944
Other	3,852	3,972
Total investments	81,260	82,803
Cash	499	617
Premium installment receivables, net	6,154	5,786
Deferred policy acquisition costs	4,784	4,191
Reinsurance and indemnification recoverables, net	9,565	8,921
Accrued investment income	600	569
Property and equipment, net	1,045	1,072
Goodwill	2,530	2,181
Other assets	3,007	2,838
Separate Accounts	2,805	3,444
Total assets	\$112,249	\$112,422
Liabilities	+,	+ ,
Reserve for property and casualty insurance claims and claims expense	\$27,423	\$26,325
Reserve for life-contingent contract benefits	12,208	12,549
Contractholder funds	18,371	19,434
Unearned premiums	14,510	13,473
Claim payments outstanding	1,007	875
Deferred income taxes	425	782
Other liabilities and accrued expenses	7,737	6,639
Long-term debt	6,451	6,350
Separate Accounts	2,805	3,444
Total liabilities	90,937	89,871
Commitments and Contingent Liabilities (Note 7, 8 and 14)	70,737	02,071
Shareholders' equity		
Preferred stock and additional capital paid-in, \$1 par value, 25 million shares authorized, 79.8		
thousand and 72.2 thousand issued and outstanding, \$1,995 and \$1,805 aggregate liquidation	1,930	1,746
preference	1,750	1,740
Common stock, \$.01 par value, 2.0 billion shares authorized and 900 million issued,		
332 million and 355 million shares outstanding	9	9
· · · · · · · · · · · · · · · · · · ·	3,310	2 212
Additional capital paid-in Retained income	*	3,313
	45,708	43,162
Deferred Employee Stock Ownership Plan ("ESOP") expense Transport stock at cost (568 million and 545 million shares)		(3)
Treasury stock, at cost (568 million and 545 million shares)	(28,085)	(25,982)
Accumulated other comprehensive income:		
Unrealized net capital gains and losses:	75	05
Unrealized net capital gains and losses on fixed income securities with OTTI	75	85

Other unrealized net capital gains and losses	(51) 1,981	
Unrealized adjustment to DAC, DSI and insurance reserves	(26) (404)	
Total unrealized net capital gains and losses	(2) 1,662	
Unrealized foreign currency translation adjustments	(64) (9	
Unrecognized pension and other postretirement benefit cost	(1,491) (1,347)	
Total accumulated other comprehensive (loss) income ("AOCI")	(1,557) 306	
Total shareholders' equity	21,312	22,551	
Total liabilities and shareholders' equity	\$112,249	\$112,422	

See notes to consolidated financial statements.

2018 Form 10-K Financial Statements

The Allstate Corporation and Subsidiaries
Consolidated Statements of Shareholders' Equity

Consonated Statements of Shareholders Equity					
(\$ in millions)	Years E 2018	nded Dec 2017		ber 31, 2016	
Preferred stock par value Preferred stock additional capital paid-in	\$—	\$—		\$—	
Balance, beginning of year	1,746	1,746		1,746	
Preferred stock issuance	557				
Preferred stock redemption	(373) —			
Balance, end of year	1,930	1,746		1,746	
Common stock par value	9	9		9	
Common stock additional capital paid-in	2.212	2 202		2.245	
Balance, beginning of year	3,313	3,303		3,245	
Forward contract on accelerated share repurchase agreement	(105) (45			
Equity incentive plans activity	102	55 2 212		58	
Balance, end of year	3,310	3,313		3,303	
Retained income Balance, beginning of year	43,162	40,678		39,413	
Cumulative effect of change in accounting principle	1,088	4 0,078			
Net income	2,252	3,189		 1,877	
Dividends on common stock (declared per share of \$1.84, \$1.48 and \$1.32)	(646) (540		(496)
Dividends on preferred stock	(148) (116	-	(116)
Reclassification of tax effects due to change in accounting principle	_	(49	<u> </u>	_	,
Balance, end of year	45,708	43,162		40,678	
Deferred ESOP expense					
Balance, beginning of year	(3) (6)	(13)
Payments		3		7	
Balance, end of year	(3) (3)	(6)
Treasury stock					
Balance, beginning of year) (24,74			
Shares acquired) (1,423)
Shares reissued under equity incentive plans, net	95	182		220	`
Balance, end of year	(28,085) (25,982	2)	(24,/41)
Accumulated other comprehensive income (loss)					
Balance, beginning of year	306	(416)	(755)
Cumulative effect of change in accounting principle	(910) —		_	
Change in unrealized net capital gains and losses	(754) 319		433	
Change in unrealized foreign currency translation adjustments	(55) 47		10	
Change in unrecognized pension and other postretirement benefit cost	(144) 307		(104)
Reclassification of tax effects due to change in accounting principle		49			
Balance, end of year) 306)
Total shareholders' equity	\$21,312	2 \$22,55	1	\$20,573	,

See notes to consolidated financial statements.

Financial Statements 2018 Form 10-K

The Allstate Corporation and Subsidiaries Consolidated Statements of Cash Flows

Consolidated Statements of Cash Flows	Years Ended December			
	31,			
(\$ in millions)	2018	2017	2016	
Cash flows from operating activities				
Net income	\$2,252	\$3,189	\$1,877	7
Adjustments to reconcile net income to net cash provided by operating activities:				
Depreciation, amortization and other non-cash items	511	483	382	
Realized capital gains and losses	877	,	90	
Gain on disposition of operations)
Interest credited to contractholder funds	654	690	726	
Goodwill impairment	_	125		
Changes in:				
Policy benefits and other insurance reserves	469	302	631	
Unearned premiums	915	463	362	
Deferred policy acquisition costs	(296)	(214)	(165)
Premium installment receivables, net	(396)	(131)	(42)
Reinsurance recoverables, net	(656)	(211)	(264)
Income taxes	(356)	(245)	417	
Other operating assets and liabilities	1,207	328	(16)
Net cash provided by operating activities	5,175	4,314	3,993	
Cash flows from investing activities				
Proceeds from sales				
Fixed income securities	33,183	25,341	25,061	
Equity securities	6,859	6,504	5,546	
Limited partnership interests	764	1,125	881	
Other investments	533	274	262	
Investment collections				
Fixed income securities	3,466	4,194	4,533	
Mortgage loans	529	600	501	
Other investments	488	642	421	
Investment purchases				
Fixed income securities	(36,960)	(31,145)	(27,99)	0)
Equity securities		(6,585)		-
Limited partnership interests		(1,440)		
Mortgage loans)
Other investments)
Change in short-term investments, net		2,610	(2,446	
Change in other investments, net			(51)
Purchases of property and equipment, net)
Acquisition of operations		(1,356)	•	
Net cash used in investing activities		(1,210))
Cash flows from financing activities	() /	() ,	,	_
Proceeds from issuance of long-term debt	498		1,236	
Redemption and repayment of long-term debt	(400)	. —)
Proceeds from issuance of preferred stock	557			/
Redemption of preferred stock				
ı I	, - /			

Contractholder fund deposits	1,010 1,025 1,049
Contractholder fund withdrawals	(1,967) (1,890) (2,087)
Dividends paid on common stock	(614) (525) (486)
Dividends paid on preferred stock	(134) (116) (116)
Treasury stock purchases	(2,303) (1,495) (1,337)
Shares reissued under equity incentive plans, net	73 135 164
Excess tax benefits on share-based payment arrangements	<u> </u>
Other	91 (57) 36
Net cash used in financing activities	(3,574) (2,923) (1,526)
Net (decrease) increase in cash	(118) 181 (59)
Cash at beginning of year	617 436 495
Cash at end of year	\$499 \$617 \$436
See notes to consolidated financial statements.	

2018 Form 10-K Notes to Consolidated Financial Statements

Notes to Consolidated Financial Statements

Note 1 General

Basis of presentation

The accompanying consolidated financial statements include the accounts of The Allstate Corporation (the "Corporation") and its wholly owned subsidiaries, primarily Allstate Insurance Company ("AIC"), a property and casualty insurance company with various property and casualty and life and investment subsidiaries, including Allstate Life Insurance Company ("ALIC") (collectively referred to as the "Company" or "Allstate"). These consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP"). All significant intercompany accounts and transactions have been eliminated.

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 ("Tax Legislation") became effective, permanently reducing the U.S. corporate income tax rate from 35% to 21% beginning January 1, 2018. As a result, the corporate tax rate is not comparable between periods.

Nature of operations

Allstate is engaged, principally in the United States, in the property and casualty insurance and life insurance businesses. Allstate is one of the country's largest personal property and casualty insurers and is organized into seven reportable segments: Allstate Protection, Discontinued Lines and Coverages, Service Businesses, Allstate Life, Allstate Benefits, Allstate Annuities, and Corporate and Other.

Allstate's primary business is the sale of private passenger auto and homeowners insurance. The Company also offers several other personal property

and casualty insurance products, select commercial property and casualty coverages, consumer product protection plans, device and mobile data collection services and analytic solutions, roadside assistance, finance and insurance products, life insurance, voluntary accident and health insurance and identity protection. Allstate primarily distributes its products through exclusive agencies, financial specialists, independent agencies and brokers, major retailers, contact centers and the internet.

Risks and uncertainties

Allstate has exposure to catastrophes, an inherent risk of the property and casualty insurance business, which have contributed, and will continue to contribute, to material year-to-year fluctuations in the Company's results of operations and financial position (see Note 8). The nature and level of catastrophic loss caused by natural events (high winds, winter storms, tornadoes, hailstorms, wildfires, tropical storms, hurricanes, earthquakes and volcanoes) and man-made events (terrorism and industrial accidents) experienced in any period cannot be predicted and could be material to results of operations and financial position. The Company considers the greatest areas of potential catastrophe losses due to wildfires to generally be in the states of California, Colorado, Arizona and Texas. The Company considers the greatest areas of potential catastrophe losses due to hurricanes to generally be major metropolitan centers in counties along the eastern and gulf coasts of the United States. The Company considers the greatest areas of potential catastrophe losses due to hailstorms to generally be in the states of Texas, Illinois, Colorado and Georgia. The Company considers the greatest areas of potential catastrophe losses due to earthquakes and fires following earthquakes to be major metropolitan areas near fault lines in the states of California, Oregon, Washington, South Carolina, Missouri, Kentucky and Tennessee. The Company also has exposure to asbestos, environmental and other discontinued lines claims (see Notes 8 and 14).

Note 2 Summary of Significant Accounting Policies

Investments

Fixed income securities include bonds, asset-backed securities ("ABS"), residential mortgage-backed securities ("RMBS"), commercial mortgage-backed securities ("CMBS") and redeemable preferred stocks. Fixed income securities, which may be sold prior to their contractual maturity, are designated as available-for-sale and are carried at fair value. The difference between amortized cost and fair value, net of deferred income taxes and related life and annuity

deferred policy acquisition costs ("DAC"), deferred sales inducement costs ("DSI") and reserves for life-contingent contract benefits, is reflected as a component of AOCI. Cash received from calls and make-whole payments is reflected as a component of

proceeds from sales and cash received from maturities and pay-downs is reflected as a component of investment collections within the Consolidated Statements of Cash Flows.

Equity securities primarily include common stocks, exchange traded and mutual funds, non-redeemable preferred stocks and real estate investment trust equity investments. Certain exchange traded and mutual funds have fixed income securities as their underlying investments. Equity securities are carried at fair value. Equity securities without readily determinable or estimable fair values are measured using the measurement alternative, which is cost less impairment, if any, and adjustments resulting from observable price changes in orderly transactions for

Notes to Consolidated Financial Statements 2018 Form 10-K

the identical or similar investment of the same issuer. The periodic change in fair value of equity securities is recognized within realized capital gains and losses on the Consolidated Statements of Operations effective January 1, 2018.

Mortgage loans are carried at unpaid principal balances, net of unamortized premium or discount and valuation allowances. Valuation allowances are established for impaired loans when it is probable that contractual principal and interest will not be collected.

Investments in limited partnership interests are primarily accounted for in accordance with the equity method of accounting ("EMA") and include interests in private equity funds, real estate funds and other funds. Investments in limited partnership interests purchased prior to January 1, 2018, where the Company's interest is so minor that it exercises virtually no influence over operating and financial policies, are accounted for at fair value primarily utilizing the net asset value ("NAV") as a practical expedient to determine fair value.

Short-term investments, including commercial paper, U.S. Treasury bills, money market funds and other short-term investments, are carried at fair value. Other investments primarily consist of bank loans, policy loans, real estate, agent loans and derivatives. Bank loans are primarily senior secured corporate loans and are carried at amortized cost. Policy loans are carried at unpaid principal balances. Real estate is carried at cost less accumulated depreciation. Agent loans are loans issued to exclusive Allstate agents and are carried at unpaid principal balances, net of valuation allowances and unamortized deferred fees or costs. Derivatives are carried at fair value.

Investment income primarily consists of interest, dividends, income from limited partnership interests, rental income from real estate, and income from certain derivative transactions. Interest is recognized on an accrual basis using the effective yield method and dividends are recorded at the ex-dividend date. Interest income for ABS, RMBS and CMBS is determined considering estimated pay-downs, including prepayments, obtained from third party data sources and internal estimates. Actual prepayment experience is periodically reviewed and effective yields are recalculated when differences arise between the prepayments originally anticipated and the actual prepayments received and currently anticipated. For ABS, RMBS and CMBS of high credit quality with fixed interest rates, the effective yield is recalculated on a retrospective basis. For all others, the effective yield is recalculated on a prospective basis. Accrual of income is suspended for other-than-temporarily impaired fixed income securities when the timing and amount of cash flows expected to be received is not reasonably estimable. Accrual of income is suspended for mortgage loans, bank loans and agent loans that are in default or when full and timely collection of principal and interest payments is not probable. Cash receipts on investments on nonaccrual status are generally recorded as a reduction of carrying value. Income from limited partnership interests carried at fair value is recognized based upon the changes in fair value of the investee's equity primarily determined using NAV.

Income from EMA limited partnership interests is recognized based on the Company's share of the partnerships' earnings. Income from EMA limited partnership interests is generally recognized on a three month delay due to the availability of the related financial statements from investees.

Realized capital gains and losses include gains and losses on investment sales, write-downs in value due to other-than-temporary declines in fair value, adjustments to valuation allowances on mortgage loans and agent loans, valuation changes of equity investments, including equity securities and certain limited partnerships where the underlying assets are predominately public equity securities, and periodic changes in fair value and settlements of certain derivatives including hedge ineffectiveness. Realized capital gains and losses on investment sales are determined on a specific identification basis.

Derivative and embedded derivative financial instruments

Derivative financial instruments include interest rate swaps, credit default swaps, futures (interest rate and equity), options (including swaptions), interest rate caps, warrants and rights, foreign currency swaps, foreign currency forwards, total return swaps and certain investment risk transfer reinsurance agreements. Derivatives required to be separated from the host instrument and accounted for as derivative financial instruments ("subject to bifurcation") are embedded in equity-indexed life and annuity contracts and reinsured variable annuity contracts.

All derivatives are accounted for on a fair value basis and reported as other investments, other assets, other liabilities and accrued expenses or contractholder funds. Embedded derivative instruments subject to bifurcation are also accounted for on a fair value basis and are reported together with the host contract. The change in fair value of derivatives embedded in life and annuity product contracts and subject to bifurcation is reported in life and annuity contract benefits or interest credited to contractholder funds. Cash flows from embedded derivatives subject to bifurcation and derivatives receiving hedge accounting are reported consistently with the host contracts and hedged risks, respectively, within the Consolidated Statements of Cash Flows. Cash Flows.

When derivatives meet specific criteria, they may be designated as accounting hedges and accounted for as fair value, cash flow, foreign currency fair value or foreign currency cash flow hedges. The hedged item may be either all or a specific portion of a recognized asset, liability or an unrecognized firm commitment attributable to a particular risk for fair value hedges. At the inception of the hedge, the Company formally documents the hedging relationship and risk management objective and strategy. The documentation identifies the hedging instrument, the hedged item, the nature of the risk being hedged and

2018 Form 10-K Notes to Consolidated Financial Statements

the methodology used to assess the effectiveness of the hedging instrument in offsetting the exposure to changes in the hedged item's fair value attributable to the hedged risk. For a cash flow hedge, this documentation includes the exposure to changes in the variability in cash flows attributable to the hedged risk. The Company does not exclude any component of the change in fair value of the hedging instrument from the effectiveness assessment. At each reporting date, the Company confirms that the hedging instrument continues to be highly effective in offsetting the hedged risk. Ineffectiveness in fair value hedges and cash flow hedges, if any, is reported in realized capital gains and losses.

Fair value hedges The change in fair value of hedging instruments used in fair value hedges of investment assets or a portion thereof is reported in net investment income, together with the change in fair value of the hedged items. The change in fair value of hedging instruments used in fair value hedges of contractholder funds liabilities or a portion thereof is reported in interest credited to contractholder funds, together with the change in fair value of the hedged items. Accrued periodic settlements on swaps are reported together with the changes in fair value of the related swaps in net investment income or interest credited to contractholder funds. The amortized cost for fixed income securities, the carrying value for mortgage loans or the carrying value of a designated hedged liability is adjusted for the change in fair value of the hedged risk.

Cash flow hedges For hedging instruments used in cash flow hedges, the changes in fair value of the derivatives representing the effective portion of the hedge are reported in AOCI. Amounts are reclassified to net investment income, realized capital gains and losses or interest expense as the hedged or forecasted transaction affects income. Accrued periodic settlements on derivatives used in cash flow hedges are reported in net investment income. The amount reported in AOCI for a hedged transaction is limited to the lesser of the cumulative gain or loss on the derivative less the amount reclassified to income, or the cumulative gain or loss on the derivative needed to offset the cumulative change in the expected future cash flows on the hedged transaction from inception of the hedge less the derivative gain or loss previously reclassified from AOCI to income. If the Company expects at any time that the loss reported in AOCI would lead to a net loss on the combination of the hedging instrument and the hedged transaction which may not be recoverable, a loss is recognized immediately in realized capital gains and losses. If an impairment loss is recognized on an asset or an additional obligation is incurred on a liability involved in a hedge transaction, any offsetting gain in AOCI is reclassified and reported together with the impairment loss or recognition of the obligation. Termination of hedge accounting If, subsequent to entering into a hedge transaction, the derivative becomes ineffective (including if the hedged item is sold or otherwise extinguished, the occurrence of a hedged forecasted transaction is no longer probable or

the hedged asset becomes other-than-temporarily impaired), the Company may terminate the derivative position. The Company may also terminate derivative instruments or redesignate them as non-hedge as a result of other events or circumstances. If the derivative instrument is not terminated when a fair value hedge is no longer effective, the future gains and losses recognized on the derivative are reported in realized capital gains and losses. When a fair value hedge is no longer effective, is redesignated as non-hedge or when the derivative has been terminated, the fair value gain or loss on the hedged asset, liability or portion thereof previously recognized in income while the hedge was in place and used to adjust the amortized cost of hedged fixed income securities, carrying value of hedged mortgage loans or carrying value of a hedged liability, is amortized over the remaining life of the hedged asset, liability or portion thereof, and reflected in net investment income or interest credited to contractholder funds beginning in the period that hedge accounting is no longer applied. If the hedged item in a fair value hedge is an asset that has become other-than-temporarily impaired, the adjustment made to the amortized cost for fixed income securities or the carrying value for mortgage loans is subject to the accounting policies applied to other-than-temporarily impaired assets. When a derivative instrument used in a cash flow hedge of an existing asset or liability is no longer effective or is terminated, the gain or loss recognized on the derivative is reclassified from AOCI to income as the hedged risk impacts income. If the derivative instrument is not terminated when a cash flow hedge is no longer effective, future gains and losses recognized on the derivative are reported in realized capital gains and losses. When a derivative instrument used in a cash flow hedge of a forecasted transaction is terminated because it is probable the forecasted transaction will not occur, the gain or loss recognized on the derivative is immediately reclassified from AOCI to

realized capital gains and losses in the period that hedge accounting is no longer applied.

Non-hedge derivative financial instruments For derivatives for which hedge accounting is not applied, the income statement effects, including fair value gains and losses and accrued periodic settlements, are reported either in realized capital gains and losses or in a single line item together with the results of the associated asset or liability for which risks are being managed.

Securities loaned

The Company's business activities include securities lending transactions, which are used primarily to generate net investment income. The proceeds received in conjunction with securities lending transactions are reinvested in short-term investments or fixed income securities. These transactions are short-term in nature, usually 30 days or less. The Company receives cash collateral for securities loaned in an amount generally equal to 102% and 105% of the fair value of domestic and foreign securities,

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respectively, and records the related obligations to return the collateral in other liabilities and accrued expenses. The carrying value of these obligations approximates fair value because of their relatively short-term nature. The Company monitors the market value of securities loaned on a daily basis and obtains additional collateral as necessary under the terms of the agreements to mitigate counterparty credit risk. The Company maintains the right and ability to repossess the securities loaned on short notice.

Recognition of premium revenues and contract charges, and related benefits and interest credited Property and casualty insurance premiums include premiums from personal lines policies, protection plans, other contracts (primarily finance and insurance products) and roadside assistance.

Personal lines insurance premiums are deferred and earned on a pro-rata basis over the terms of the policies, typically periods of six or twelve months.

Revenues related to protection plans, other contracts (primarily finance and insurance products) and roadside assistance are deferred and earned over the term of the contract in a manner that recognizes revenue as obligations under the contracts are performed. Revenues from these products are classified as premiums as the products are backed by insurance. Protection plans and finance and insurance premiums are recognized using a cost-based incurrence method over the term of the contracts, which is generally over one to five years. Roadside assistance premiums are recognized evenly over the term of the contract as performance obligations are fulfilled.

The portion of premiums written applicable to the unexpired terms of the policies is recorded as unearned premiums. Premium installment receivables, net, represent premiums written and not yet collected, net of an allowance for uncollectible premiums. The Company regularly evaluates premium installment receivables and adjusts its valuation allowance as appropriate. The valuation allowance for uncollectible premium installment receivables was \$77 million as of both December 31, 2018 and 2017.

Traditional life insurance products consist principally of products with fixed and guaranteed premiums and benefits, primarily term and whole life insurance products. Voluntary accident and health insurance products are expected to remain in force for an extended period and therefore are primarily classified as long-duration contracts. Premiums from these products are recognized as revenue when due from policyholders. Benefits are reflected in contract benefits and recognized over the life of the policy in relation to premiums.

Immediate annuities with life contingencies, including certain structured settlement annuities, provide benefits over a period that extends beyond the period during which premiums are collected. Premiums from these products are recognized as revenue when received at the inception of the contract. Benefits and expenses are recognized in relation to

premiums. Profits from these policies come primarily from investment income, which is recognized over the life of the contract.

Interest-sensitive life contracts, such as universal life and single premium life, are insurance contracts whose terms are not fixed and guaranteed. The terms that may be changed include premiums paid by the contractholder, interest credited to the contractholder account balance and contract charges assessed against the contractholder account balance. Premiums from these contracts are reported as contractholder fund deposits. Contract charges consist of fees assessed against the contractholder account balance for the cost of insurance (mortality risk), contract administration and surrender of the contract prior to contractually specified dates. These contract charges are recognized as revenue when assessed against the contractholder account balance. Contract benefits include life-contingent benefit payments in excess of the contractholder account balance.

Contracts that do not subject the Company to significant risk arising from mortality or morbidity are referred to as investment contracts. Fixed annuities, including market value adjusted annuities, equity-indexed annuities and immediate annuities without life contingencies, are considered investment contracts. Consideration received for such contracts is reported as contractholder fund deposits. Contract charges for investment contracts consist of fees assessed against the contractholder account balance for maintenance, administration and surrender of the contract prior to contractually specified dates, and are recognized when assessed against the contractholder account balance.

Interest credited to contractholder funds represents interest accrued or paid on interest-sensitive life and investment contracts. Crediting rates for certain fixed annuities and interest-sensitive life contracts are adjusted periodically by the Company to reflect current market conditions subject to contractually guaranteed minimum rates. Crediting rates for indexed life and annuities and indexed funding agreements are generally based on a specified interest rate index or an equity index, such as the Standard & Poor's 500 Index ("S&P 500"). Interest credited also includes amortization of DSI expenses. DSI is amortized into interest credited using the same method used to amortize DAC.

Contract charges for variable life and variable annuity products consist of fees assessed against the contractholder account balances for contract maintenance, administration, mortality, expense and surrender of the contract prior to contractually specified dates. Contract benefits incurred for variable annuity products include guaranteed minimum death, income, withdrawal and accumulation benefits. Substantially all of the Company's variable annuity business is ceded through reinsurance agreements and the contract charges and contract benefits related thereto are reported net of reinsurance ceded.

Other revenue presentation

Concurrent with the adoption of Financial Accounting Standards Board ("FASB") guidance on

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revenue from contracts with customers and the Company's objective of providing more information related to revenues for our Service Businesses, the Company revised the presentation of total revenue to include other revenue. Previously, components of other revenue were presented within operating costs and expenses and primarily represented fees collected from policyholders relating to premium installment payments, commissions on sales of non-proprietary products, fee-based services and other revenue transactions. Other revenue is recognized when performance obligations are fulfilled. Prior periods have been reclassified to conform to current separate presentation of other revenue.

Deferred policy acquisition and sales inducement costs

Costs that are related directly to the successful acquisition of new or renewal insurance policies and investment contracts are deferred and recorded as DAC. These costs are principally agency's and brokers' remuneration, premium taxes and certain underwriting expenses. DSI costs, which are deferred and recorded as other assets, relate to sales inducements offered on sales to new customers, principally on fixed annuity and interest-sensitive life contracts. These sales inducements are primarily in the form of additional credits to the customer's account balance or enhancements to interest credited for a specified period which are in excess of the rates currently being credited to similar contracts without sales inducements. DSI is amortized into income using the same methodology and assumptions as DAC and is included in interest credited to contractholder funds. All other acquisition costs are expensed as incurred and included in operating costs and expenses.

For property and casualty insurance, DAC is amortized into income as premiums are earned, typically over periods of six or twelve months for personal lines policies or generally one to five years for protection plans and other contracts (primarily related to finance and insurance products), and is included in amortization of deferred policy acquisition costs. DAC associated with property and casualty insurance is periodically reviewed for recoverability and adjusted if necessary. Future investment income is considered in determining the recoverability of DAC.

For traditional life and voluntary accident and health insurance, DAC is amortized over the premium paying period of the related policies in proportion to the estimated revenues on such business. Assumptions used in the amortization of DAC and reserve calculations are established at the time the policy is issued and are generally not revised during the life of the policy. Any deviations from projected business in force resulting from actual policy terminations differing from expected levels and any estimated premium deficiencies may result in a change to the rate of amortization in the period such events occur. Generally, the amortization periods for these policies approximates the estimated lives of the policies. The Company periodically reviews the recoverability of DAC for these policies using actual experience and current assumptions. Prior to fourth

quarter 2017, the Company evaluated traditional life insurance products and immediate annuities with life contingencies on an aggregate basis. In conjunction with the segment changes that occurred in the fourth quarter of 2017, traditional life insurance products, immediate annuities with life contingencies, and voluntary accident and health insurance products are reviewed individually. If actual experience and current assumptions are adverse compared to the original assumptions and a premium deficiency is determined to exist, any remaining unamortized DAC balance would be expensed to the extent not recoverable and the establishment of a premium deficiency reserve may be required.

For interest-sensitive life insurance, DAC and DSI are amortized in proportion to the incidence of the total present value of gross profits, which includes both actual historical gross profits ("AGP") and estimated future gross profits ("EGP") expected to be earned over the estimated lives of the contracts. The amortization is net of interest on the prior period DAC balance using rates established at the inception of the contracts. Actual amortization periods generally range from 15-30 years; however, incorporating estimates of the rate of customer surrenders, partial withdrawals and deaths generally results in the majority of the DAC being amortized during the surrender charge period, which is typically 10-20 years for interest-sensitive life. The rate of DAC and DSI amortization is reestimated and adjusted by a cumulative charge or credit to income when there is a difference between the incidence of actual versus expected gross profits in a reporting period or when there is a change in total EGP. When DAC or DSI amortization or a component of gross profits for a quarterly period is potentially negative (which would result in an increase of the DAC or DSI balance) as a result of negative AGP, the specific facts and circumstances surrounding the potential negative

amortization are considered to determine whether it is appropriate for recognition in the consolidated financial statements. Negative amortization is only recorded when the increased DAC or DSI balance is determined to be recoverable based on facts and circumstances. Recapitalization of DAC and DSI is limited to the originally deferred costs plus interest.

AGP and EGP primarily consist of the following components: contract charges for the cost of insurance less mortality costs and other benefits; investment income and realized capital gains and losses less interest credited; and surrender and other contract charges less maintenance expenses. The principal assumptions for determining the amount of EGP are mortality, persistency, expenses, investment returns, including capital gains and losses on assets supporting contract liabilities, interest crediting rates to contractholders, and the effects of any hedges. For products whose supporting investments are exposed to capital losses in excess of the Company's expectations which may cause periodic AGP to become temporarily negative, EGP and AGP utilized in DAC and DSI amortization may be modified to exclude the excess capital losses.

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The Company performs quarterly reviews of DAC and DSI recoverability for interest-sensitive life and fixed annuity contracts using current assumptions. If a change in the amount of EGP is significant, it could result in the unamortized DAC or DSI not being recoverable, resulting in a charge which is included as a component of amortization of deferred policy acquisition costs or interest credited to contractholder funds, respectively.

The DAC and DSI balances presented include adjustments to reflect the amount by which the amortization of DAC and DSI would increase or decrease if the unrealized capital gains or losses in the respective product investment portfolios were actually realized. The adjustments are recorded net of tax in AOCI. DAC, DSI and deferred income taxes determined on unrealized capital gains and losses and reported in AOCI recognize the impact on shareholders' equity consistently with the amounts that would be recognized in the income statement on realized capital gains and losses.

Customers of the Company may exchange one insurance policy or investment contract for another offered by the Company, or make modifications to an existing investment, life or property and casualty contract issued by the Company. These transactions are identified as internal replacements for accounting purposes. Internal replacement transactions determined to result in replacement contracts that are substantially unchanged from the replaced contracts are accounted for as continuations of the replaced contracts. Unamortized DAC and DSI related to the replaced contracts continue to be deferred and amortized in connection with the replacement contracts. For interest-sensitive life and investment contracts, the EGP of the replacement contracts are treated as a revision to the EGP of the replaced contracts in the determination of amortization of DAC and DSI. For traditional life and property and casualty insurance policies, any changes to unamortized DAC that result from replacement contracts are treated as prospective revisions. Any costs associated with the issuance of replacement contracts are characterized as maintenance costs and expensed as incurred. Internal replacement transactions determined to result in a substantial change to the replaced contracts are accounted for as an extinguishment of the replaced contracts, and any unamortized DAC and DSI related to the replaced contracts are eliminated with a corresponding charge to amortization of deferred policy acquisition costs or interest credited to contractholder funds, respectively.

The costs assigned to the right to receive future cash flows from certain business purchased from other insurers are also classified as DAC in the Consolidated Statements of Financial Position. The costs capitalized represent the present value of future profits expected to be earned over the lives of the contracts acquired. These costs are amortized as profits emerge over the lives of the acquired business and are periodically evaluated for recoverability. The present value of future profits was \$45 million and \$47 million as of December 31, 2018 and 2017, respectively.

Amortization expense of the present value of future profits was \$2 million, \$6 million and \$5 million in 2018, 2017 and 2016, respectively.

Reinsurance and Indemnification

Reinsurance In the normal course of business, the Company seeks to limit aggregate and single exposure to losses on large risks by purchasing reinsurance. The Company has also used reinsurance to effect the disposition of certain blocks of business. Reinsurance does not extinguish the Company's primary liability under the policies written. Therefore, the Company regularly evaluates the financial condition of its reinsurers, including their activities with respect to claim settlement practices and commutations, and establishes allowances for uncollectible reinsurance as appropriate.

Indemnification The Company also participates in various indemnification mechanisms, including industry pools and facilities, which are backed by the financial resources of the property and casualty insurance company market participants. Indemnification recoverables are considered collectible based on the industry pool and facility enabling legislation.

The amounts reported as reinsurance and indemnification recoverables include amounts billed to reinsurers and indemnitors on losses paid as well as estimates of amounts expected to be recovered from reinsurers and indemnitors on insurance liabilities and contractholder funds that have not yet been paid. Reinsurance and indemnification recoverables on unpaid losses are estimated based upon assumptions consistent with those used in establishing the liabilities related to the underlying contracts. Insurance liabilities are reported gross of reinsurance and

indemnification recoverables. Reinsurance and indemnification premiums are generally reflected in income in a manner consistent with the recognition of premiums on the associated contracts. For catastrophe coverage, the cost of reinsurance premiums is recognized ratably over the contract period to the extent coverage remains available. Goodwill

Goodwill represents the excess of amounts paid for acquiring businesses over the fair value of the net assets acquired, less any impairment of goodwill recognized. The Company's goodwill reporting units are equivalent to its reportable segments, Allstate Protection, Service Businesses, Allstate Life and Allstate Benefits to which goodwill has been assigned.

Goodwill by reporting unit

	As of	
	December 31,	
(\$ in millions)	2018	2017
Allstate Protection	\$810	\$810
Service Businesses	1,449	1,100
Allstate Life	175	175
Allstate Benefits	96	96
Total	\$2,530	\$2,181

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Goodwill is recognized when acquired and allocated to reporting units based on which unit is expected to benefit from the synergies of the business combination. Goodwill is not amortized but is tested for impairment at least annually. The Company performs its annual goodwill impairment testing during the fourth quarter of each year based upon data as of the close of the third quarter. Goodwill impairment is measured and recognized as the amount by which a reporting unit's carrying value, including goodwill, exceeds its fair value, not to exceed the carrying amount of goodwill allocated to the reporting unit. The Company also reviews goodwill for impairment whenever events or changes in circumstances, such as deteriorating or adverse market conditions, indicate that it is more likely than not that the carrying amount of goodwill may exceed its implied fair value. The goodwill impairment analysis is performed at the reporting unit level.

In fourth quarter 2017, the Company adopted new reportable segments, which required the Company to evaluate goodwill, including the allocation of goodwill to any new reporting units on a relative fair value basis. The reallocation was computed using fair values for the goodwill reporting units determined using discounted cash flow ("DCF") calculations and market to book multiples derived from a peer company analysis as described below. In conjunction with the reallocation of goodwill, the Company recognized \$125 million of goodwill impairment related to the goodwill allocated to the Allstate Annuities reporting unit reflecting a market-based valuation. The fair value of the Company's reporting units exceeded their carrying values.

Upon acquisition, the purchase price of the acquired business is assumed to be its fair value. Subsequently, the Company estimates the fair value of the businesses in each goodwill reporting unit, utilizing a combination of widely accepted valuation techniques including a stock price and market capitalization analysis, DCF calculations and an estimate of a business's fair value using market to book multiples derived from peer company analysis. The stock price and market capitalization analysis takes into consideration the quoted market price of the Company's outstanding common stock and includes a control premium, derived from relevant historical acquisition activity, in determining the estimated fair value of the consolidated entity before allocating that fair value to individual reporting units. The DCF analysis utilizes long term assumptions for revenues, investment income, benefits, claims, other operating expenses and income taxes to produce projections of both income and cash flows available for dividends that are present valued using weighted average cost of capital. Market to book multiples represent the mean market to book multiple for selected peer companies with operations similar to the Company's goodwill reporting units to which the multiple is applied. The outputs from these methods are weighted based on the nature of the business and the relative amount of market observable assumptions supporting the estimates. The computed values are then weighted to

reflect the fair value estimate based on the specific attributes of each goodwill reporting unit.

Estimating the fair value of reporting units is a subjective process that involves the use of significant estimates by management. Changes in market inputs or other events impacting the fair value of these businesses, including discount rates, operating results, investment returns, strategies and growth rate assumptions or increases in the level of equity required to support these businesses, could result in goodwill impairments, resulting in a charge to income. Most of the goodwill reporting units are comprised of a combination of legacy and acquired businesses and as a result have substantial internally generated and unrecognized intangibles and fair values that significantly exceed their carrying values. The Service Businesses goodwill reporting unit is more heavily comprised of newly acquired businesses and as a result does not have a significant excess of fair value over its carrying value. Therefore, this reporting unit may be more susceptible to goodwill impairment based on changes to growth or margin assumptions. The most significant assumptions utilized in the determination of the estimated fair value of the Service Businesses reporting unit are the earnings growth rate and discount rate. The growth rate utilized by the Company for fair value estimates is consistent with plans to grow these businesses rapidly over the near-term with more moderated growth rates in later years.

The discount rate, which is consistent with the weighted average cost of capital expected by a market participant, is based upon industry specific required rates of return, including consideration of both debt and equity components of the capital structure. The discount rate may be impacted by changes in the risk free rate, cost of debt, equity risk premium and entity specific risks.

Changes in the Company's growth assumptions, including the risk of loss of key customers, or adverse changes in the discount rates could result in a decline in fair value and result in a goodwill impairment charge. Intangible assets

Intangible assets (reported in other assets) consist of capitalized costs primarily related to acquired customer relationships, trade names and licenses, technology and other assets. The estimated useful lives of customer relationships, technology and other intangible assets are generally 10 years, 5 years and 7 years, respectively. Intangible assets are carried at cost less accumulated amortization. Amortization expense is calculated using an accelerated amortization method. Amortization expense on intangible assets was \$105 million, \$99 million and \$32 million in 2018, 2017 and 2016, respectively. Accumulated amortization on intangible assets was \$572 million and \$467 million as of December 31, 2018 and 2017, respectively. Trade names and licenses are considered to have an indefinite useful life and are reviewed for impairment at least annually or more frequent if circumstances arise that indicate an impairment may have occurred. An impairment is

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recognized if the carrying amount of the asset exceeds its estimated fair value.

Intangible assets by type

As of December

31,

(\$ in millions) 2018 2017 Customers relationships \$530 \$396 Trade names and licenses 143 143 Technology and other 40 17 Total \$713 \$556

Property and equipment

Property and equipment is carried at cost less accumulated depreciation. Included in property and equipment are capitalized costs related to computer software licenses and software developed for internal use. These costs generally consist of certain external payroll and payroll related costs. Property and equipment depreciation is calculated using the straight-line method over the estimated useful lives of the assets, generally 3 to 10 years for equipment and 40 years for real property. Depreciation expense is reported in operating costs and expenses. Accumulated depreciation on property and equipment was \$2.41 billion and \$2.27 billion as of December 31, 2018 and 2017, respectively. Depreciation expense on property and equipment was \$299 million, \$290 million and \$267 million in 2018, 2017 and 2016, respectively. The Company reviews its property and equipment for impairment at least annually and whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.

Income taxes

Income taxes are accounted for using the asset and liability method under which deferred tax assets and liabilities are recognized for temporary differences between the financial reporting and tax bases of assets and liabilities at the enacted tax rates. The principal assets and liabilities giving rise to such differences are DAC, unearned premiums, investments (including unrealized capital gains and losses) and insurance reserves. A deferred tax asset valuation allowance is established when it is more likely than not such assets will not be realized. The Company recognizes interest expense related to income tax matters in income tax expense and penalties in other expense.

Reserve for property and casualty insurance claims and claims expense

The reserve for property and casualty insurance claims and claims expense is the estimate of amounts necessary to settle all reported and unreported incurred claims for the ultimate cost of insured property and casualty losses, based upon the facts of each case and the Company's experience with similar cases. Estimated amounts of salvage and subrogation are deducted from the reserve for claims and claims expense. The establishment of appropriate reserves, including reserves for catastrophe losses, is an inherently uncertain and complex process. Reserve estimates are primarily derived using an actuarial estimation process in which historical loss patterns are applied to actual paid losses and reported losses (paid

losses plus individual case reserves established by claim adjusters) for an accident or report year to create an estimate of how losses are likely to develop over time. Development factors are calculated quarterly and periodically throughout the year for data elements such as claims reported and settled, paid losses, and paid losses combined with case reserves. The historical development patterns for these data elements are used as the assumptions to calculate reserve estimates, including the reserves for reported and unreported claims. Reserve estimates are regularly reviewed and updated, using the most current information available. Any resulting reestimates are reflected in current results of operations.

Reserve for life-contingent contract benefits

The reserve for life-contingent contract benefits payable under insurance policies, including traditional life insurance, life-contingent immediate annuities and voluntary accident and health insurance products, is computed on the basis of long-term actuarial assumptions of future investment yields, mortality, morbidity, policy terminations and expenses. These assumptions, which for traditional life insurance are applied using the net level premium method, include

provisions for adverse deviation and generally vary by characteristics such as type of coverage, year of issue and policy duration. The assumptions are established at the time the policy is issued and are generally not changed during the life of the policy. The Company periodically reviews the adequacy of reserves for these policies using actual experience and current assumptions. If actual experience and current assumptions are adverse compared to the original assumptions and a premium deficiency is determined to exist, any remaining unamortized DAC balance would be expensed to the extent not recoverable and the establishment of a premium deficiency reserve may be required. Prior to fourth quarter 2017, the Company evaluated traditional life insurance products and immediate annuities with life contingencies on an aggregate basis. In conjunction with the Company's segment changes that occurred in the fourth quarter of 2017, traditional life insurance products, immediate annuities with life contingencies, and voluntary accident and health insurance are reviewed individually. The Company also reviews these policies for circumstances where projected profits would be recognized in early years followed by projected losses in later years. If this circumstance exists, the Company will accrue a liability, during the period of profits, to offset the losses at such time as the future losses are expected to commence using a method updated prospectively over time. To the extent that unrealized gains on fixed income securities would result in a premium deficiency if those gains were realized, the related increase in reserves for certain immediate annuities with life contingencies is recorded net of tax as a reduction of unrealized net capital gains included in AOCI.

Contractholder funds

Contractholder funds represent interest-bearing liabilities arising from the sale of products such as

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interest-sensitive life insurance, fixed annuities and funding agreements. Contractholder funds primarily comprise cumulative deposits received and interest credited to the contractholder less cumulative contract benefits, surrenders, withdrawals, maturities and contract charges for mortality or administrative expenses. Contractholder funds also include reserves for secondary guarantees on interest-sensitive life insurance and certain fixed annuity contracts and reserves for certain guarantees on reinsured variable annuity contracts.

Separate accounts

Separate accounts assets are carried at fair value. The assets of the separate accounts are legally segregated and available only to settle separate accounts contract obligations. Separate accounts liabilities represent the contractholders' claims to the related assets and are carried at an amount equal to the separate accounts assets. Investment income and realized capital gains and losses of the separate accounts accrue directly to the contractholders and therefore are not included in the Company's Consolidated Statements of Operations. Deposits to and surrenders and withdrawals from the separate accounts are reflected in separate accounts liabilities and are not included in consolidated cash flows.

Absent any contract provision wherein the Company provides a guarantee, variable annuity and variable life insurance contractholders bear the investment risk that the separate accounts' funds may not meet their stated investment objectives. Substantially all of the Company's variable annuity business was reinsured beginning in 2006. Legal contingencies

The Company reviews its lawsuits, regulatory inquiries, and other legal proceedings on an ongoing basis. The Company establishes accruals for such matters at management's best estimate when the Company assesses that it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. The Company's assessment of whether a loss is reasonably possible or probable is based on its assessment of the ultimate outcome of the matter following all appeals. The Company does not include potential recoveries in its estimates of reasonably possible or probable losses. Legal fees are expensed as incurred.

Long-term debt

Long-term debt includes senior notes, senior debentures, subordinated debentures and junior subordinated debentures issued by the Corporation. Unamortized debt issuance costs are reported in long-term debt and are amortized over the expected period the debt will remain outstanding.

Deferred ESOP expense

Deferred ESOP expense represents the remaining unrecognized cost of shares acquired by the Allstate ESOP to pre-fund a portion of the Company's contribution to the Allstate 401(k) Savings Plan.

Equity incentive plans

The Company has equity incentive plans under which the Company grants nonqualified stock options, restricted stock units and performance stock awards ("equity awards") to certain employees and directors of the Company. The Company measures the fair value of equity awards at the award date and recognizes the expense over the shorter of the period in which the requisite service is rendered or retirement eligibility is attained. The expense for performance stock awards is adjusted each period to reflect the performance factor most likely to be achieved at the end of the performance period. The Company uses a binomial lattice model to determine the fair value of employee stock options.

Off-balance sheet financial instruments

Commitments to invest, commitments to purchase private placement securities, commitments to extend loans, financial guarantees and credit guarantees have off-balance sheet risk because their contractual amounts are not recorded in the Company's Consolidated Statements of Financial Position (see Notes 7 and 14).

Consolidation of variable interest entities ("VIEs")

The Company consolidates VIEs when it is the primary beneficiary. A primary beneficiary is the variable interest holder in a VIE with both the power to direct the activities of the VIE that most significantly impact the economic performance of the VIE and the obligation to absorb losses, or the right to receive benefits, that could potentially be significant to the VIE.

Foreign currency translation

The local currency of the Company's foreign subsidiaries is deemed to be the functional currency of the country in which these subsidiaries operate. The financial statements of the Company's foreign subsidiaries are translated into U.S. dollars at the exchange rate in effect at the end of a reporting period for assets and liabilities and at average exchange rates during the period for results of operations.

The unrealized gains and losses from the translation of the net assets are recorded as unrealized foreign currency translation adjustments and included in AOCI. Changes in unrealized foreign currency translation adjustments are included in OCI. Gains and losses from foreign currency transactions are reported in operating costs and expenses and have not been material.

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Earnings per common share

Basic earnings per common share is computed using the weighted average number of common shares outstanding, including vested unissued participating restricted stock units. Diluted earnings per common share is computed using the weighted average number of common and dilutive potential common shares outstanding. For the Company, dilutive potential common shares consist of outstanding stock options and unvested non-participating restricted stock units and contingently issuable performance stock awards.

Computation of basic and diluted earnings per common share

	For the	years en	ıded
	Decemb		
(\$ in millions, except per share data)	2018	2017	2016
Numerator:			
Net income	\$2,252	\$3,189	\$1,877
Less: Preferred stock dividends	148	116	116
Net income applicable to common shareholders (1)	\$2,104	\$3,073	\$1,761
Denominator:			
Weighted average common shares outstanding	347.8	362.0	372.8
Effect of dilutive potential common shares:			
Stock options	3.6	4.3	3.2
Restricted stock units (non-participating) and performance stock awards	1.8	1.5	1.3
Weighted average common and dilutive potential common shares outstanding	353.2	367.8	377.3
Earnings per common share – Basic	\$6.05	\$8.49	\$4.72
Earnings per common share – Diluted	\$5.96	\$8.36	\$4.67

⁽¹⁾ Net income applicable to common shareholders is net income less preferred stock dividends.

The effect of dilutive potential common shares does not include the effect of options with an anti-dilutive effect on earnings per common share because their exercise prices exceed the average market price of Allstate common shares during the period or for which the unrecognized compensation cost would have an anti-dilutive effect. Outstanding options to purchase 2.0 million, 1.5 million and 3.8 million Allstate common shares in 2018, 2017 and 2016, respectively, were anti-dilutive and were not included in the computation of diluted earnings per common share under the treasury stock method.

Adopted accounting standards

Recognition and Measurement of Financial Assets and Financial Liabilities

Effective January 1, 2018, the Company adopted new FASB guidance requiring equity investments, including equity securities and limited partnership interests not accounted for under the equity method of accounting or that do not result in consolidation to be measured at fair value with changes in fair value recognized in net income. The guidance clarifies that an entity should evaluate the realizability of deferred tax assets related to available-for-sale fixed income securities in combination with the entity's other deferred tax assets. The Company's adoption of the new FASB guidance included adoption of the relevant elements of Technical Corrections and Improvements to Financial Instruments, issued in February 2018.

Upon adoption of the new guidance on January 1, 2018, \$1.16 billion of pre-tax unrealized net capital gains for equity securities were reclassified from AOCI to retained income. The after-tax change in accounting for equity securities did not affect the Company's total shareholders' equity and the unrealized net capital gains of \$910 million reclassified to retained income will never be recognized in net income.

Upon adoption of the new guidance on January 1, 2018, the carrying value of cost method limited

partnership interests increased \$224 million pre-tax, to fair value. The after-tax cumulative-effect increase in retained income of \$177 million increased the Company's shareholders' equity but will never be recognized in net income

thereby negatively impacting calculations of returns on equity.

Revenue from Contracts with Customers

Effective January 1, 2018, the Company adopted new FASB guidance which revises the criteria for revenue recognition. Insurance contracts are excluded from the scope of the new guidance. The Company's principal activities impacted by the new guidance are those related to the issuance of protection plans for consumer products and automobiles and service contracts that provide roadside assistance. Under the guidance, the transaction price is attributed to underlying performance obligations in the contract and revenue is recognized as the entity satisfies performance obligations and transfers control of a good or service to the customer. Incremental costs of obtaining a contract may be capitalized and amortized to the extent the entity expects to recover those costs.

Adoption of the guidance on January 1, 2018 under the modified retrospective approach resulted in the recognition of

Adoption of the guidance on January 1, 2018 under the modified retrospective approach resulted in the recognition of an immaterial after-tax net cumulative effect increase to the beginning balance of retained income. In addition to the net cumulative effect, the

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Company also recorded in the Consolidated Statement of Financial Position an increase of approximately \$160 million pre-tax in unearned premiums with a corresponding \$160 million pre-tax increase in DAC for protection plans sold directly to retailers prior to January 1, 2018 for which SquareTrade Holding Company, Inc. ("SquareTrade") is deemed to be the principal in the transaction. This impact offsets fully and did not impact retained income at the date of adoption.

Presentation of Net Periodic Pension and Postretirement Benefits Costs

Effective January 1, 2018, the Company adopted new FASB guidance requiring identification, on the statement of operations or in disclosures, the line items in which the components of net periodic pension and postretirement benefits costs are presented. The new guidance permits only the service cost component to be eligible for capitalization where applicable. The adoption had no impact on the Company's results of operations or financial position.

Goodwill Impairment

In January 2017, the FASB issued guidance to simplify the accounting for goodwill impairment which removes the second step of the goodwill impairment test that requires a hypothetical purchase price allocation. Under the new guidance, goodwill impairment will be measured and recognized as the amount by which a reporting unit's carrying value, including goodwill, exceeds its fair value, not to exceed the carrying amount of goodwill allocated to the reporting unit. The revised guidance does not affect a reporting entity's ability to first assess qualitative factors by reporting unit to determine whether to perform the quantitative goodwill impairment test. The guidance is to be applied on a prospective basis, with the effects, if any, recognized in net income in the period of adoption. The Company elected to early adopt the new guidance as of January 1, 2018. The adoption had no impact on the Company's results of operations or financial position.

Pending accounting standards

Accounting for Leases

In February 2016, the FASB issued guidance revising the accounting for leases. Under the new guidance, lessees will be required to recognize a right-of-use ("ROU") asset and lease liability for all leases other than those with a term less than one year. The lease liability will be equal to the present value of lease payments. A ROU asset will be based on the lease liability adjusted for qualifying initial direct costs. The Company currently estimates that the recognition of the ROU asset and lease liability will result in an increase in both total assets and liabilities in the Consolidated Statement of Financial Position of approximately \$500 million. The new guidance requires sellers in a sale-leaseback transaction to recognize the entire gain from the sale of an underlying asset at the time the sale is recognized rather than over the leaseback term. The carrying value of unrecognized gains on sale-leaseback transactions

executed prior to January 1, 2019 are approximately \$20 million, after-tax, and will be recorded as an increase to retained income at adoption.

The expense of operating leases under the new guidance will be recognized in the income statement on a straight-line basis by adjusting the amortization of the ROU asset to produce a straight-line expense when combined with the interest expense on the lease liability. For finance leases, the expense components are computed separately and produce greater up-front expense compared to operating leases as interest expense on the lease liability is higher in early years and the ROU asset is amortized on a straight-line basis. Lease classification will be based on criteria similar to those currently applied. The accounting model for lessors will be similar to the current model with modifications to reflect definition changes for components such as initial direct costs. Lessors will continue to classify leases as operating, direct financing, or sales-type. The guidance is effective for reporting periods beginning after December 15, 2018, and will be implemented using the optional transition method that allows application of the transition provisions at the adoption date instead of the earliest date presented.

Measurement of Credit Losses on Financial Instruments

In June 2016, the FASB issued guidance which revises the credit loss recognition criteria for certain financial assets measured at amortized cost, including reinsurance recoverables. The new guidance replaces the existing incurred loss recognition model with an expected loss recognition model. The objective of the expected credit loss model is for the reporting entity to recognize its estimate of expected credit losses for affected financial assets in a valuation allowance

deducted from the amortized cost basis of the related financial assets that results in presenting the net carrying value of the financial assets at the amount expected to be collected. The reporting entity must consider all relevant information available when estimating expected credit losses, including details about past events, current conditions, and reasonable and supportable forecasts over the life of an asset. Financial assets may be evaluated individually or on a pooled basis when they share similar risk characteristics. The measurement of credit losses for available-for-sale debt securities measured at fair value is not affected except that credit losses recognized are limited to the amount by which fair value is below amortized cost and the carrying value adjustment is recognized through a valuation allowance and not as a direct write-down. The guidance is effective for reporting periods beginning after December 15, 2019, and for most affected instruments must be adopted using a modified retrospective approach, with a cumulative effect adjustment recorded to beginning retained income. The Company is in the process of evaluating the impact of adoption.

Accounting for Hedging Activities

In August 2017, the FASB issued amendments intended to better align hedge accounting with an

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organization's risk management activities. The amendments expand hedge accounting for nonfinancial and financial risk components and revise the measurement methodologies to better align with an organization's risk management activities. Separate presentation of hedge ineffectiveness is eliminated to provide greater transparency of the full impact of hedging by requiring presentation of the results of the hedged item and hedging instrument in a single financial statement line item. In addition, the amendments are designed to reduce complexity by simplifying the manner in which assessments of hedge effectiveness may be performed. The guidance is effective for reporting periods beginning after December 15, 2018. The presentation and disclosure guidance is effective on a prospective basis. The impact of adoption is not expected to be material to the Company's results of operations or financial position.

Changes to the Disclosure Requirements for Deferred Benefit Plans

In August 2018, the FASB issued amendments to modify certain disclosure requirements for defined benefit plans. Disclosure additions relate to the weighted-average interest crediting rates for cash balance plans and other plans with interest crediting rates and explanations for significant gains and losses related to changes in the benefit obligation for the period. Disclosures to be removed include those that identify amounts that are expected to be reclassified out of AOCI and into the income statement in the coming year and the anticipated impact of a one-percentage point change in assumed health care cost trend rate on service and interest cost and on the accumulated benefit obligation. The amendments are effective for annual reporting periods beginning after December 15, 2020. The impacts of adoption are to the Company's disclosures only.

Accounting for Long-Duration Insurance Contracts

In August 2018, the FASB issued guidance revising the accounting for certain long-duration insurance contracts. The new guidance changes the measurement of the Company's reserves for traditional life, life-contingent immediate annuities and certain voluntary accident and health insurance products. Under the new guidance, measurement assumptions, including those for mortality, morbidity and policy terminations, will be required to be reviewed and updated at least annually. The effect of updating measurement assumptions other than the discount rate are required to be determined on a retrospective basis and reported in net income. In addition, cash flows under the new guidance are required to be discounted using an upper medium grade fixed income instrument yield that is updated through OCI at each reporting date. These changes will replace current GAAP, which utilizes assumptions set at policy issuance until such time as the assumptions result in reserves that are deficient when compared to reserves computed using current assumptions. Under current GAAP, premium deficiency reserves are recognized in the amount of the deficiency, if any, computed using current assumptions.

The new guidance requires DAC and other capitalized balances currently amortized in proportion to premiums or gross profits to be amortized on a constant level basis over the expected term for all long-duration insurance contracts. DAC will not be subject to loss recognition testing but will be reduced when actual experience exceeds expected experience (i.e. as a result of unexpected contract terminations). The new guidance will no longer require adjustments to DAC and deferred sales inducement costs ("DSI") related to unrealized gains and losses on investment securities supporting the related business.

Market risk benefit product features are required to be measured at fair value with changes in fair value recorded in net income with the exception of changes in the fair value attributable to changes in the Company's own credit risk, which are required to be recognized in OCI. Substantially all of the Company's market risk benefits are reinsured and therefore these impacts are not expected to be material to the Company.

The new guidance is to be included in the comparable financial statements issued in reporting periods beginning after December 15, 2020, thereby requiring restatement of prior periods presented. Early adoption is permitted. The new guidance will be applied to affected contracts and DAC on the basis of existing carrying amounts at the earliest period presented or it may be applied retrospectively using actual historical experience as of contract inception. The new guidance for market risk benefits is required to be adopted retrospectively.

The Company is evaluating the anticipated impacts of applying the new guidance to both retained income and AOCI. While the requirements of the new guidance represent a material change from existing GAAP, the underlying

economics of the business and related cash flows are unchanged. The Company has not completed its evaluation of the specific impacts of adopting the new guidance, but anticipates the financial statement impact of migrating from existing GAAP to that required by the new guidance to be material, largely attributed to the impact of transitioning from an original investment-based discount rate to one based on an upper-medium grade fixed income investment yield and updates to mortality assumptions that had previously been locked in at issuance. The Company expects the most significant impacts will occur in the run-off annuity segment. The revised accounting for DAC will be applied prospectively using the new model and any DAC effects existing in AOCI as a result of applying existing GAAP at the date of adoption will be reversed.

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Note 3 Acquisitions

InfoArmor On October 5, 2018, the Company acquired InfoArmor, Inc. ("InfoArmor"), a leading provider of identity protection in the employee benefits market, for \$525 million in cash. InfoArmor primarily offers identity protection to employees and their family members through voluntary benefit programs at over 1,400 firms, including more than 100 of the Fortune 500 companies. Starting in the fourth quarter of 2018, the Service Businesses segment includes the results of InfoArmor.

In connection with the InfoArmor acquisition, the Company recorded goodwill of \$318 million and intangible assets of \$257 million. The intangible assets include \$225 million and \$32 million related to the acquired customer relationships and technology, respectively.

PlumChoice On November 30, 2018, the Company acquired PlumChoice, Inc. ("PlumChoice") for \$30 million in cash to provide technical support services to SquareTrade's customers and small businesses. In conjunction with the PlumChoice acquisition, the Company recorded goodwill of \$23 million.

SquareTrade On January 3, 2017, the Company acquired SquareTrade, a consumer product protection plan provider that distributes through many of America's major retailers and Europe's mobile operators, for \$1.40 billion in cash. SquareTrade provides protection plans covering a variety of consumer products including TVs, smartphones and computers. This acquisition broadened Allstate's unique product offerings to better meet consumers' needs. In connection with the SquareTrade acquisition, the Company recorded goodwill of \$1.10 billion, commissions paid to retailers (reported in deferred

policy acquisition costs) of \$66 million, intangible assets (reported in other assets) of \$555 million, contractual liability insurance policy premium expenses (reported in other assets) of \$205 million, unearned premiums of \$389 million, and net deferred income tax liability of \$138 million. These amounts reflect re-measurement adjustments to the fair value of the opening balance sheet assets and liabilities.

Of the \$555 million assigned to intangible assets, \$465 million was attributable to acquired customer relationships. Intangible assets also included \$69 million assigned to the SquareTrade trade name which is considered to have an indefinite useful life. The amortization expense of intangible assets in 2018 and 2017 were \$94 million and \$92 million, respectively.

Amortization expense of intangible assets

for the next five years and thereafter

(\$ in millions)	InfoArmor	SquareTrad
2019	\$ 50	\$ 72
2020	44	62
2021	38	52
2022	31	42
2023	25	34
Thereafter	56	50
Total amortization	\$ 244	\$ 312

Customer relationship valuation methodology The value of the customer relationships intangible asset was determined using an income approach that considered cash flows and profits expected to be generated by the acquired relationships, a discount rate reflecting the relative risk of achieving the anticipated cash flows and profits, the time value of money, and other factors.

Note 4 Reportable Segments

The Company's chief operating decision maker reviews financial performance and makes decisions about the allocation of resources based on the following seven reportable segments: Allstate Protection, Discontinued Lines and Coverages, Service Businesses, Allstate Life, Allstate Benefits, Allstate Annuities, and Corporate and Other. These segments are described below and align with the Company's key product and service offerings.

Allstate Protection principally offers private passenger auto and homeowners insurance in the United States and Canada, with earned premiums accounting for 83% of Allstate's 2018 consolidated revenues. Allstate Protection is authorized to sell certain property and casualty products in all 50 states, the District of Columbia ("D.C."), Puerto Rico

and Canada. For 2018, the top U.S. geographic locations for premiums earned by the Allstate Protection segment were Texas, California, New York and Florida. No other jurisdiction accounted for more than 5% of premium earned for Allstate Protection. Revenues from external customers generated outside the United

States were \$1.20 billion, \$1.13 billion and \$1.08 billion in 2018, 2017 and 2016, respectively.

Discontinued Lines and Coverages includes property and casualty insurance coverage that primarily relates to policies written during the 1960s through the mid-1980s. Our exposure to asbestos, environmental and other discontinued lines claims arises principally from direct excess commercial insurance, assumed reinsurance coverage, direct primary commercial insurance and other businesses in run-off.

Service Businesses comprise SquareTrade, Arity, InfoArmor, Allstate Roadside Services and Allstate Dealer Services and offer consumer product protection plans, device and mobile data collection services and analytic solutions, identity protection, roadside assistance, and finance and insurance products (including vehicle service contracts, guaranteed asset protection waivers, road hazard tire and wheel and paintless dent repair protection). The Service Businesses primarily operate in the U.S., with certain

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businesses offering services in Europe, Canada and Puerto Rico. Revenues from external customers generated outside the United States relate to consumer product protection plans sold primarily in the European Union and were \$61 million and \$35 million in 2018 and 2017, respectively.

Allstate Life offers traditional, interest-sensitive and variable life insurance products. Allstate Life is authorized to sell life insurance products in all 50 states, D.C. and Puerto Rico. For 2018, the top geographic locations for statutory direct life insurance premiums were New York, California, Texas, Florida and Illinois. No other jurisdiction accounted for more than 5% of statutory direct life insurance premiums.

Allstate Benefits offers voluntary benefits products, including life, accident, critical illness, short-term disability and other health products. Allstate Benefits is authorized to sell its products in all 50 states, D.C., Puerto Rico, the U.S. Virgin Islands, Guam and Canada. For 2018, the top geographic locations for statutory direct accident and health insurance premiums were Florida, Texas, North Carolina and New York. No other jurisdiction accounted for more than 5% of statutory direct accident and health insurance premiums. Revenues from external customers generated outside the United States relate to voluntary accident and health insurance sold in Canada and were not material. Allstate Annuities consists primarily of deferred fixed annuities and immediate annuities (including standard and sub-standard structured settlements). This segment is in run-off. The Company also previously offered institutional products consisting of funding agreements sold to unaffiliated trusts that used them to back medium-term notes. There were no institutional products outstanding as of December 31, 2018 or 2017.

Corporate and Other comprises holding company activities and certain non-insurance operations, including expenses associated with strategic initiatives.

Allstate Protection and Discontinued Lines and Coverages segments comprise Property-Liability. The Company does not allocate investment income, realized capital gains and losses, or assets to the Allstate Protection and Discontinued Lines and Coverages segments. Management reviews assets at the Property-Liability, Service Businesses, Allstate Life, Allstate Benefits, Allstate Annuities, and Corporate and Other levels for decision-making purposes.

The accounting policies of the reportable segments are the same as those described in Note 2. The effects of intersegment transactions are eliminated in the segment results, except for services provided by Service Businesses to Allstate Protection that are not eliminated as management considers those transactions in assessing the results of the respective segments.

Measuring segment profit or loss

The measure of segment profit or loss used in evaluating performance is underwriting income for the Allstate Protection and Discontinued Lines and Coverages segments and adjusted net income for the Service Businesses, Allstate Life, Allstate Benefits, Allstate Annuities, and Corporate and Other segments. A reconciliation of these measures to net income applicable to common shareholders is provided below.

Underwriting income is calculated as premiums earned and other revenue, less claims and claims expenses ("losses"), amortization of DAC, operating costs and expenses, and restructuring and related charges as determined using GAAP. Adjusted net income is net income applicable to common shareholders, excluding:

- Realized capital gains and losses, after-tax, except for periodic settlements and accruals on non-hedge derivative instruments, which are reported with realized capital gains and losses but included in adjusted net income
- Valuation changes on embedded derivatives not hedged, after-tax
- Amortization of DAC and DSI, to the extent they resulted from the recognition of certain realized capital gains and losses or valuation changes on embedded derivatives not hedged, after-tax
- Business combination expenses and the amortization of purchased intangible assets, after-tax
- Gain (loss) on disposition of operations, after-tax
- Adjustments for other significant non-recurring, infrequent or unusual items, when (a) the nature of the charge or gain is such that it is reasonably unlikely to recur within two years, or (b) there has been no similar charge or gain within the prior two years

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Reportable segments revenue information

Reportable segments revenue information				
	For the years ended December 31,			
(\$ in millions)	2018	2017	2016	
Property-Liability	2010	2017	2010	
Insurance premiums				
Auto	\$22,970	\$21,878	\$21,264	1
Homeowners	7,517	7,310	7,257	-
Other personal lines	1,808	1,750	1,700	
Commercial lines	655	495	506	
Allstate Protection	32,950	31,433	30,727	
Discontinued Lines and Coverages	_	_	_	
Total Property-Liability insurance premiums	32,950	31,433	30,727	
Other revenue	738	703	688	
Net investment income	1,464	1,478	1,253	
Realized capital gains and losses	*	401	(6)
Total Property-Liability	34,513	34,015	32,662	,
Total Property Elability	54,515	34,013	32,002	
Service Businesses				
Consumer product protection plans	503	295		
Roadside assistance	263	268	310	
Finance and insurance products	332	304	270	
Intersegment premiums and service fees (1)	122	110	105	
Other revenue	82	66	64	
Net investment income	27	16	13	
Realized capital gains and losses	(11)		_	
Total Service Businesses	1,318	1,059	762	
Allstate Life				
Traditional life insurance premiums	600	568	533	
Accident and health insurance premiums	2	2	2	
Interest-sensitive life insurance contract charges	713	710	715	
Other revenue	119	114	113	
Net investment income	505	489	482	
Realized capital gains and losses	(14)	5	(38)
Total Allstate Life	1,925	1,888	1,807	
All C. D. C.				
Allstate Benefits	4.4	10	40	
Traditional life insurance premiums	44	42	40	
Accident and health insurance premiums	980	928	857	
Interest-sensitive life insurance contract charges	111	114	114	
Net investment income	77	72	71	`
Realized capital gains and losses	` /	1	(5)
Total Allstate Benefits	1,203	1,157	1,077	
Allstate Annuities				
Fixed annuities contract charges	15	14	14	
Net investment income	1,096	1,305	1,181	
1 tot myodinent meome	1,070	1,505	1,101	

Realized capital gains and losses	(166)	44		(38)
Total Allstate Annuities	945		1,363		1,157	
Corporate and Other						
Net investment income	71		41		42	
Realized capital gains and losses	(38)	(6)	(3)
Total Corporate and Other	33		35		39	
Intersegment eliminations (1)	(122)	(110)	(105)
Consolidated revenues	\$39,81	5	\$39,40	7	\$37,39	9

⁽¹⁾ Intersegment insurance premiums and service fees are primarily related to Arity and Allstate Roadside Services and are eliminated in the consolidated financial statements.

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Reportable segments financial performance

Reportable segments financial performance				
	For th	e years e	nded	
	Decen	nber 31,		
(\$ in millions)	2018	2017	201	6
Property-Liability				
Allstate Protection	\$2,18	7 \$2,11	1 \$1,	327
Discontinued Lines and Coverages	(90) (99) (10'	7)
Total underwriting income	2,097	2,012	1,22	20
Net investment income		1,478	-	
Income tax expense on operations) (1,119		
Realized capital gains and losses, after-tax	(500) 272	_	,
Gain on disposition of operations, after-tax	_	9		
Tax Legislation expense	(5) (65) —	
Property-Liability net income applicable to common shareholders	2,341	2,587	1	51
Troperty-Elability liet income applicable to common shareholders	2,571	2,307	1,00)1
Service Businesses				
Adjusted net income (loss)	2	(59) 3	
Realized capital gains and losses, after-tax	(9) —	, ,	
Amortization of purchased intangible assets, after-tax	(74) (60) —	
Tax Legislation (expense) benefit	(4) 134	, —	
		*	3	
Service Businesses net (loss) income applicable to common shareholders	(85) 15	3	
Allstate Life				
Adjusted net income	289	253	247	
· ·				\
Realized capital gains and losses, after-tax	(11	,	(24)
DAC and DSI amortization related to realized capital gains and losses, after-tax	(8) (10) (4)
Tax Legislation (expense) benefit	(16) 332	210	
Allstate Life net income applicable to common shareholders	254	577	219	
Allstate Benefits				
	110	05	100	
Adjusted net income	119	95	100	
Realized capital gains and losses, after-tax	(7) —	(4)
DAC and DSI amortization related to realized capital gains and losses, after-tax	1		_	
Tax Legislation benefit		51	_	
Allstate Benefits net income applicable to common shareholders	113	146	96	
Alleren America				
Allstate Annuities	120	20.4	101	
Adjusted net income	130	204	101	
Realized capital gains and losses, after-tax	(131) 28	(26)
Valuation changes on embedded derivatives not hedged, after-tax	3	_	(2)
Gain on disposition of operations, after-tax	4	4	3	
Tax Legislation benefit	69	182	_	
Allstate Annuities net income applicable to common shareholders	75	418	76	
Corporate and Other	/ 			
Adjusted net loss	(542) (399) (29)	
Realized capital gains and losses, after-tax	(30) (4) (2)
Goodwill impairment		(125) —	

Business combination expenses, after-tax	(7) (14) —	
Tax Legislation expense	(15) (128) —	
Corporate and Other net loss applicable to common shareholders	(594) (670) (294)
Consolidated net income applicable to common shareholders	\$2.10	4 \$3.07	3 \$1.76	1

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Additional significant financial performance data

			For the years ended			
]	December 31,		
(\$ in millions)			2	2018	2017	2016
Amortization of DAC						
Property-Liability			9	\$4,475	\$4,205	\$4,053
Service Businesses			2	463	296	214
Allstate Life				132	134	131
Allstate Benefits				145	142	145
Allstate Annuities			-	7	7	7
Consolidated			9	\$5,222	\$4,784	\$4,550
Income tax expense (benefit)						
Property-Liability			9	\$581	\$1,318	\$806
Service Businesses			((20)	(193)	
Allstate Life				73	(224)	91
Allstate Benefits			3	30	1	51
Allstate Annuities			((66)	(58)	36
Corporate and Other			((106)	(42)	(107)
Consolidated			9	\$492	\$802	\$877
Impacts of Tax Legislation						
	Income	e tax	Tax		Incom	e tax
	expens		Legi	islation	expens	se
	(benefi	it) before	expe		(benef	it) after
	Tax		(ben		Tax	
	Legisla	ation	(beil	icitt)	Legisla	ation
		years en				
(\$ in millions)	2018	2017	2018	3 2017	2018	2017
Income tax expense (benefit)						
Property-Liability	\$576	\$1,253	\$5	\$65	\$581	\$1,318
Service Businesses		` /	4	-	, , ,	(193)
Allstate Life	57	108	16	,) 73	(224)
Allstate Benefits	30	52	_	(51) 30	1
Allstate Annuities	3	124	(69) (182	, , ,	(58)
Corporate and Other	(121)	. ,	15	128	(106)	. ,
Consolidated	\$521	\$1,308	\$(29	9) \$(506	5) \$492	\$802

Interest expense is primarily incurred in the Corporate and Other segment. Capital expenditures for long-lived assets are generally made in Property-Liability as the Company does not allocate assets to the Allstate Protection and Discontinued Lines and Coverages segments. A portion of these long-lived assets are used by entities included in the Service Businesses, Allstate Life, Allstate Benefits, Allstate Annuities and Corporate and Other segments and, accordingly, are charged to expenses in proportion to their use.

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Reportable segment total assets and investments (1)

	As of December 31.	
(\$ in millions)	2018	2017
Assets		
Property-Liability	\$61,947	\$60,197
Service Businesses	5,473	4,531
Allstate Life	13,613	14,107
Allstate Benefits	2,822	2,766
Allstate Annuities	26,798	28,836
Corporate and Other	1,596	1,985
Consolidated	\$112,249	\$112,422
Investments		
Property-Liability	\$43,634	\$43,183
Service Businesses	1,203	954
Allstate Life	10,809	11,210
Allstate Benefits	1,809	1,776
Allstate Annuities	22,336	23,722
Corporate and Other	1,469	1,958
Consolidated	\$81,260	\$82,803

⁽¹⁾ The balances reflect the elimination of related party investments between segments.

Note 5 Investments

Amortized cost, gross unrealized gains (losses) and fair value for

fixed income securities

	Amortized	Gross		Fair
	cost	unrealiz	zed	value
(\$ in millions)	COSt	Gains	Losses	valuc
December 31, 2018				
U.S. government and agencies	\$ 5,386	\$137	\$(6)	\$5,517
Municipal	8,963	249	(43)	9,169
Corporate	40,536	490	(890)	40,136
Foreign government	739	13	(5)	747
ABS	1,049	6	(10)	1,045
RMBS	377	89	(2)	464
CMBS	63	8	(1)	70
Redeemable preferred stock	21	1		22
Total fixed income securities	\$ 57,134	\$993	\$(957)	\$57,170
December 31, 2017				
U.S. government and agencies	\$ 3,580	\$56	\$(20)	\$3,616
Municipal	8,053	311	(36)	8,328
Corporate	42,996	1,234	(204)	44,026
Foreign government	1,005	27	(11)	1,021
ABS	1,266	13	(7)	1,272
RMBS	480	101	(3)	578
CMBS	124	6	(2)	128
Redeemable preferred stock	21	2		23
Total fixed income securities	\$ 57,525	\$1,750	\$(283)	\$58,992

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Scheduled maturities for fixed income securities

	As of December			
	31, 2018			
(¢ ::11:)	Amortize F air			
(\$ in millions)	cost	value		
Due in one year or less	\$3,344	\$3,348		
Due after one year through five years	27,862	27,742		
Due after five years through ten years	17,033	16,773		
Due after ten years	7,406	7,728		
	55,645	55,591		
ABS, RMBS and CMBS	1,489	1,579		
Total	\$57,134	\$57,170		

Actual maturities may differ from those scheduled as a result of calls and make-whole payments by the issuers. ABS, RMBS and CMBS are shown separately because of the potential for prepayment of principal prior to contractual maturity dates.

Net investment income

For the years ended			
December 31,			
2018	2017	2016	
\$2,077	\$2,078	\$2,060	
170	174	137	
217	206	217	
705	889	561	
73	30	16	
272	236	222	
3,514	3,613	3,213	
(274)	(212)	(171)	
\$3,240	\$3,401	\$3,042	
	Decemb 2018 \$2,077 170 217 705 73 272 3,514 (274)	December 31, 2018 2017 \$2,077 \$2,078 170 174 217 206 705 889 73 30 272 236 3,514 3,613 (274) (212)	

Due to the adoption of the recognition and measurement accounting standard, limited partnerships previously

- (1) reported using the cost method are now reported at fair value with changes in fair value recognized in net investment income.
- (2) Includes net investment income of \$451 million for EMA limited partnership interests and \$254 million for limited partnership interests carried at fair value for 2018.

Realized capital gains (losses) by asset type

	I			
	For the years ended			
	December 31,			
(\$ in millions)	2018	2017	2016	
Fixed income securities	\$(237)	\$94	\$(91)	
Equity securities	(594)	255	23	
Mortgage loans	2	1		
Limited partnership interests	(101)	132	(21)	
Derivatives	46	(46)	3	
Other	7	9	(4)	
Realized capital gains and losses	\$(877)	\$445	\$(90)	

Realized capital gains (losses) by transaction type

For the years ended
December 31,

(\$ in millions)

Impairment write-downs (1)

\$ (14) \$ (102) \$ (234)

Change in intent write-downs (1)	_	(48) (69)
Net OTTI losses recognized in earnings	(14) (150) (303)
Sales (1)	(215) 641	213	
Valuation of equity investments (1)(2)	(691) —	_	
Valuation and settlements of derivative instruments	43	(46) —	
Realized capital gains and losses	\$(87	7) \$445	\$(90)

Due to the adoption of the recognition and measurement accounting standard, equity securities are reported at fair

- (1) value with changes in fair value recognized in valuation of equity investments and are no longer included in impairment write-downs, change in intent write-downs and sales.
- (2) Includes valuation of equity securities and certain limited partnership interests where the underlying assets are predominately public equity securities.
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Gross gains of \$120 million and gross losses of \$347 million were realized on sales of fixed income securities during 2018. Gross gains of \$737 million and \$631 million and gross losses of \$276 million and \$461 million were realized on sales of fixed income and equity securities during 2017 and 2016, respectively.

The following table presents the net pre-tax appreciation (decline) during 2018 of equity securities and limited partnership interests carried at fair value still held as of December 31, 2018, recognized in net income.

Net appreciation (decline) recognized in net income

```
For the year
                                                ended
                                                December 31,
($ in millions)
                                                2018
Equity securities
                                                $ (261)
Limited partnership interests carried at fair value 249
Total
                                                $ (12
OTTI losses by asset type
                                For the years ended December 31,
                               2018
                                                      2017
                                                                              2016
($ in millions)
                                                             Included Net
                                                                                      Included Net
                               Gross \ \frac{Included}{in \ OCI} \ Net
                                                      Gross
                                                                              Gross
                                                              in OCI
                                                                                      in OCI
Fixed income securities:
Municipal
                                      $ —
                                                     $(1
                                                           ) $ (3 ) $(4
                                                                            ) $—
                                                                                      $ —
Corporate
                                    ) 2
                                               (2)(9
                                                                                    ) 9
                                                           ) 3
                                                                       (6
                                                                            ) (33
                                                                                               (24
ABS
                                    ) (2
                                            ) (3 ) (1
                                                           ) (2
                                                                            ) (6
                               (1
                                                                    ) (3
                                                                                    ) —
                                                                                               (6
                                                                                                     )
RMBS
                                                                    ) (5
                                                                                      (1
                               (1
                                    ) —
                                               (1
                                                   ) (2
                                                           ) (3
                                                                            ) —
                                                                                             ) (1
                                                                                                     )
CMBS
                               (3
                                    ) (1
                                            ) (4
                                                   ) (9
                                                           ) 1
                                                                      (8
                                                                            ) (15
                                                                                    ) 2
                                                                                               (13
Total fixed income securities
                               (9
                                   ) (1
                                            ) (10 ) (22
                                                                            ) (54
                                                                                    ) 10
                                                           ) (4
                                                                    ) (26
                                                                                               (44
Equity securities (1)
                                                     (86
                                                                      (86
                                                                            ) (194 ) —
                                                                                               (194)
Mortgage loans
                                                     (1
                                                           ) —
                                                                      (1
                                                                            ) —
Limited partnership interests (1)
                               (3
                                   ) —
                                               (3
                                                  ) (32
                                                           ) —
                                                                      (32
                                                                            ) (56
                                                                                               (56
                                                                                                     )
Other
                                   ) —
                                               (1) (5
                                                                      (5
                                                                                               (9
                               (1
                                                           ) —
                                                                            ) (9
                                                                                                     )
OTTI losses
                               $(13) $ (1 ) $(14) $(146) $ (4 ) $(150) $(313) $ 10
                                                                                               $(303)
```

Due to the adoption of the recognition and measurement accounting standard, equity securities and limited

OTTI losses included in AOCI at the time of

impairment for fixed income securities

which were not included in earnings

					\mathcal{C}	
(\$ in millions)	De	cember	31,	D	ecember	31,
(\$ III IIIIIIIIIII)	20	18		20)17	
Municipal	\$	(5)	\$	(5)
Corporate	(2)	_	-	
ABS	(10))	(1	5)
RMBS	(67)	7)	(7	7)
CMBS	(2)	(4)
Total	\$	(86)	\$	(101)

The amounts exclude \$180 million and \$208 million as of December 31, 2018 and 2017, respectively, of net unrealized gains related to changes in valuation of the fixed income securities subsequent to the impairment measurement date.

Rollforward of the cumulative credit losses recognized in earnings for fixed income securities held

⁽¹⁾ partnerships previously reported using the cost method are now reported at fair value with changes in fair value recognized in net income and are no longer included in the table above.

	As of	Decemb	per 31,
(\$ in millions)	2018	2017	2016
Beginning balance	\$(226	6) \$(318	3) \$(392)
Additional credit loss for securities previously other-than-temporarily impaired	(7) (18) (21)
Additional credit loss for securities not previously other-than-temporarily impaired	(3) (8) (23)
Reduction in credit loss for securities disposed or collected	30	116	117
Change in credit loss due to accretion of increase in cash flows	2	2	1
Ending balance	\$(204	4) \$(226	5) \$(318)

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The Company uses its best estimate of future cash flows expected to be collected from the fixed income security, discounted at the security's original or current effective rate, as appropriate, to calculate a recovery value and determine whether a credit loss exists. The determination of cash flow estimates is inherently subjective and methodologies may vary depending on facts and circumstances specific to the security. All reasonably available information relevant to the collectability of the security, including past events, current conditions, and reasonable and supportable assumptions and forecasts, are considered when developing the estimate of cash flows expected to be collected. That information generally includes, but is not limited to, the remaining payment terms of the security, prepayment speeds, foreign exchange rates, the financial condition and future earnings potential of the issue or issuer, expected defaults, expected recoveries, the value of underlying collateral, vintage, geographic concentration of underlying collateral, available reserves or escrows, current subordination levels, third party guarantees and other credit

enhancements. Other information, such as industry analyst reports and forecasts, sector credit ratings, financial condition of the bond insurer for insured fixed income securities, and other market data relevant to the realizability of contractual cash flows, may also be considered. The estimated fair value of collateral will be used to estimate recovery value if the Company determines that the security is dependent on the liquidation of collateral for ultimate settlement. If the estimated recovery value is less than the amortized cost of the security, a credit loss exists and an OTTI for the difference between the estimated recovery value and amortized cost is recorded in earnings. The portion of the unrealized loss related to factors other than credit remains classified in AOCI. If the Company determines that the fixed income security does not have sufficient cash flow or other information to estimate a recovery value for the security, the Company may conclude that the entire decline in fair value is deemed to be credit related and the loss is recorded in earnings.

Unrealized net capital gains and losses included in AOCI

(\$ in millions) December 31, 2018	Fair value		lized	Unrealize net gain (losses)	S
Fixed income securities	\$57,170			,	
Short-term investments	3,027	—	ф(<i>)</i> Б <i>(</i>)	—	
Derivative instruments	_		(3)	(3)
EMA limited partnerships (1)			,	_	
Unrealized net capital gains and losses, pre-tax				33	
Amounts recognized for:					
Insurance reserves (2)				_	
DAC and DSI (3)				(33)
Amounts recognized				(33)
Deferred income taxes				(2)
Unrealized net capital gains and losses, after-tax				\$ (2)

- (1) Unrealized net capital gains and losses for limited partnership interests represent the Company's share of EMA limited partnerships' OCI. Fair value and gross unrealized gains and losses are not applicable.
- The insurance reserves adjustment represents the amount by which the reserve balance would increase if the net unrealized gains in the applicable product portfolios were realized and reinvested at lower interest rates, resulting in a premium deficiency. This adjustment primarily relates to structured settlement annuities with life contingencies (a type of immediate fixed annuities).
- (3) The DAC and DSI adjustment balance represents the amount by which the amortization of DAC and DSI would increase or decrease if the unrealized gains or losses in the respective product portfolios were realized.

Unrealized net capital gains and losses included in AOCI

(\$ in millions)	Fair	Gross	Unrealized	
(\$ III IIIIIIOIIS)	value	unrealized	net gains	
December 31, 2017	varue	Gains Losses	(losses)	

⁽¹⁾ Included in the fair value of derivative instruments is \$2 million classified as liabilities.

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Change in unrealized net capital gains (losses)

	For the	years en	ded
	Decembe	er 31,	
(\$ in millions)	2018	2017	2016
Fixed income securities	\$(1,431)	\$204	\$516
Equity securities (1)	_	651	233
Derivative instruments	(2)	(3)	(4)
EMA limited partnerships	(1)	5	_
Total	(1,434)	857	745
Amounts recognized for:			
Insurance reserves	315	(315)	
DAC and DSI	163	(50)	(79)
Amounts recognized	478	(365)	(79)
Deferred income taxes	202	117	(233)
(Decrease) increase in unrealized net capital gains and losses, after-tax	\$(754)	\$609	\$433

Upon adoption of the recognition and measurement accounting standard on January 1, 2018, \$1.16 billion of (1) pre-tax unrealized net capital gains for equity securities were reclassified from AOCI to retained income. See Note 2 for further details.

Portfolio monitoring

The Company has a comprehensive portfolio monitoring process to identify and evaluate each fixed income security whose carrying value may be other-than-temporarily impaired.

For each fixed income security in an unrealized loss position, the Company assesses whether management with the appropriate authority has made the decision to sell or whether it is more likely than not the Company will be required to sell the security before recovery of the amortized cost basis for reasons such as liquidity, contractual or regulatory purposes. If a security meets either of these criteria, the security's decline in fair value is considered other than temporary and is recorded in earnings.

If the Company has not made the decision to sell the fixed income security and it is not more likely than not the Company will be required to sell the fixed income security before recovery of its amortized cost basis, the Company evaluates whether it expects to receive cash flows sufficient to recover the entire amortized cost basis of the security. The Company calculates the estimated recovery value by discounting the best estimate of future cash flows at the security's original or current effective rate, as appropriate, and compares this to the amortized cost of the security. If the Company does not expect to receive cash flows sufficient to recover the entire amortized cost basis of the fixed income security, the credit loss component of the impairment is recorded in earnings, with the

remaining amount of the unrealized loss related to other factors recognized in OCI.

The Company's portfolio monitoring process includes a quarterly review of all securities to identify instances where the fair value of a security compared to its amortized cost is below established thresholds. The process also includes the monitoring of other impairment indicators such as ratings, ratings downgrades and payment defaults. The securities identified, in addition to other securities for which the Company may have a concern, are evaluated for potential OTTI using all reasonably available information relevant to the collectability or recovery of the security. Inherent in the Company's evaluation of OTTI for these securities are assumptions and estimates about the financial condition and future earnings potential of the issue or issuer. Some of the factors that may be considered in evaluating whether a decline in fair value is other than temporary are: 1) the financial condition, near-term and long-term prospects of the issue or issuer, including relevant industry specific market conditions and trends, geographic location and implications of rating agency actions and offering prices; 2) the specific reasons that a security is in an unrealized loss position, including overall market conditions which could affect liquidity; and 3) the length of time and extent to which the fair value has been less than amortized cost.

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Gross unrealized losses and fair value by type and length of time held in a continuous unrealized loss position (\$ in millions) Less than 12 months 12 months or more										
(+ III IIIIII)	Numb of issues	er Fair value	Unrealiz losses	ed	Numb	er Fair	Unrealiz losses	ed	Total unrealized losses	ed
December 31, 2018										
Fixed income securities										
U.S. government and agencies	11	\$55	\$ —		38	\$364	\$ (6)	\$ (6)
Municipal	943	1,633	(10)	1,147	1,554	(33)	(43)
Corporate	1,735	19,243	(543)	645	8,374	(347)	(890)
Foreign government	7	20	(1)	27	412	(4)	(5)
ABS	64	454	(5)	28	161	(5)	(10)
RMBS	166	30	_		195	52	(2)	(2)
CMBS	3	7	_		2	_	(1)	(1)
Redeemable preferred stock	1		_			_	_		_	
Total fixed income securities	2,930	\$21,442	\$ (559)	2,082	\$10,917	\$ (398)	\$ (957)
Investment grade fixed income securities		\$17,485	-)		\$10,626)	\$ (691)
Below investment grade fixed income securities	582	3,957	(228)	61	291	(38)	(266)
Total fixed income securities	2,930	\$21,442)	2,082	\$10,917	\$ (398)	\$ (957)
December 31, 2017										
Fixed income securities										
U.S. government and agencies	66	\$2,829	\$ (18)	18	\$182	\$ (2)	\$ (20)
Municipal	1,756	3,143	(24)	165	349	(12)	(36)
Corporate	781	11,616	(102)	208	3,289	(102)	(204)
Foreign government	45	580	(10)	5	44	(1)	(11)
ABS	57	476	(3)	9	34	(4)	(7)
RMBS	118	35	(1)	181	50	(2)	(3)
CMBS	2	1	_		6	23	(2)	(2)
Redeemable preferred stock	1	_				_	_		_	
Total fixed income securities	2,826	18,680	(158)	592	3,971	(125)	(283)
Equity securities	127	369	(12)	2	_	_		(12)
Total fixed income and equity securities	2,953	\$19,049	\$ (170)		\$3,971	\$ (125)	\$ (295)
Investment grade fixed income securities		\$17,668)	535	\$3,751	\$ (98)	\$ (232)
Below investment grade fixed income securities	120	1,012	(24)	57	220	(27)	(51)
Total fixed income securities		\$18,680)	592	\$3,971	\$ (125)	\$ (283)
As of December 31, 2018, \$902 million of the \$9			-	-					•	,
unrealized loss position less than 20% of amortiz										pose
a high risk of being other-than-temporarily impai										

As of December 31, 2018, \$902 million of the \$957 million unrealized losses are related to securities with an unrealized loss position less than 20% of amortized cost, the degree of which suggests that these securities do not pose a high risk of being other-than-temporarily impaired. Of the \$902 million, \$673 million are related to unrealized losses on investment grade fixed income securities. Of the remaining \$229 million, \$207 million have been in an unrealized loss position for less than 12 months. Investment grade is defined as a security having a rating of Aaa, Aa, A or Baa from Moody's, a rating of AAA, AA, A or BBB from S&P Global Ratings ("S&P"), a comparable rating from another nationally recognized rating agency, or a comparable internal rating if an externally provided rating is not available. Market prices for certain securities may have credit spreads which imply higher or lower credit quality than the current third party rating. Unrealized losses on investment grade securities are principally related to an increase in market yields which may include increased risk-free interest rates and/or wider credit spreads since the time of initial purchase. The

unrealized losses are expected to reverse as the securities approach maturity.

As of December 31, 2018, the remaining \$55 million of unrealized losses are related to securities in unrealized loss positions greater than or equal to 20% of amortized cost. Investment grade fixed income securities comprising \$18 million of these unrealized losses were evaluated based on factors such as discounted cash flows and the financial condition and near-term and long-term prospects of the issue or issuer and were determined to have adequate resources to fulfill contractual obligations. Of the \$55 million, \$37 million are related to below investment grade fixed income securities. Of these amounts, \$3 million are related to below investment grade fixed income securities that had been in an unrealized loss position greater than or equal to 20% of amortized cost for a period of twelve or more consecutive months as of December 31, 2018.

ABS, RMBS and CMBS in an unrealized loss position were evaluated based on actual and projected

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collateral losses relative to the securities' positions in the respective securitization trusts, security specific expectations of cash flows, and credit ratings. This evaluation also takes into consideration credit enhancement, measured in terms of (i) subordination from other classes of securities in the trust that are contractually obligated to absorb losses before the class of security the Company owns, and (ii) the expected impact of other structural features embedded in the securitization trust beneficial to the class of securities the Company owns, such as overcollateralization and excess spread. Municipal bonds in an unrealized loss position were evaluated based on the underlying credit quality of the primary obligor, obligation type and quality of the underlying assets.

As of December 31, 2018, the Company has not made the decision to sell and it is not more likely than not the Company will be required to sell fixed income securities with unrealized losses before recovery of the amortized cost basis.

Limited partnerships

Investments in limited partnership interests include interests in private equity funds, real estate funds and other funds. As of December 31, 2018 and 2017, the carrying value of EMA limited partnerships totaled \$5.73 billion and \$5.41 billion, respectively, and

limited partnerships carried at fair value as of December 31, 2018, while at cost as of December 31, 2017, totaled \$1.78 billion and \$1.33 billion, respectively. Principal factors influencing carrying value appreciation or decline include operating performance, comparable public company earnings multiples, capitalization rates and the economic environment. For equity method limited partnerships, the Company recognizes an impairment loss when evidence demonstrates that the loss is other than temporary. Evidence of a loss in value that is other than temporary may include the absence of an ability to recover the carrying amount of the investment or the inability of the investee to sustain a level of earnings that would justify the carrying amount of the investment. Changes in fair value limited partnerships are recorded through net investment income and therefore are not tested for impairment. Mortgage loans

The Company's mortgage loans are commercial mortgage loans collateralized by a variety of commercial real estate property types located across the United States and totaled, net of valuation allowance, \$4.67 billion and \$4.53 billion as of December 31, 2018 and 2017, respectively. Substantially all of the commercial mortgage loans are non-recourse to the borrower.

Principal geographic distribution of commercial real estate exceeding 5% of the mortgage loans portfolio

	As of	
	Decem	ber 31,
(% of mortgage loan portfolio carrying value)	2018	2017
California	16.4%	19.9%
Texas	14.9	13.0
Illinois	7.8	7.1
New Jersey	6.8	7.6
Florida	6.1	6.4
North Carolina	5.1	4.0
Types of properties collateralizing the mortgage	e loan po	ortfolio
	As of	
	Decem	ber 31,
(% of mortgage loan portfolio carrying value)	2018	2017
Apartment complex	34.4%	30.9%
Office buildings	24.5	23.8
Warehouse		