HUMANA INC
Form 10-K
February 21, 2019
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K
þ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2018
OR
¨ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to
Commission file number 1-5975
HUMANA INC.
(Exact name of registrant as specified in its charter)

Delaware	61-0647538
(State of incorporation)	(I.R.S. Employer Identification Number)
500 West Main Street Louisville, Kentucky	40202
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (502) 580-1000
Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of exchange on which registered
Common stock, $0.16 2/3 par value	New York Stock Exchange

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 þ No ¨
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 þ
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 þ 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 þ 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 þ 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 þ

The aggregate market value of voting stock held by non-affiliates of the Registrant as of June 30, 2018 was $41,129,697,151 calculated using the average price on June 30, 2018 of $299.02.

The number of shares outstanding of the Registrant's Common Stock as of January 31, 2019 was 135,566,909.

DOCUMENTS INCORPORATED BY REFERENCE

Parts II and III incorporate herein by reference portions of the Registrant's Proxy Statement to be filed pursuant to Regulation 14A with respect to the Annual Meeting of Stockholders scheduled to be held on April 18, 2019.

HUMANA INC.
INDEX TO ANNUAL REPORT ON FORM 10-K
For the Year Ended December 31, 2018

Forward-Looking Statements

Some of the statements under "Business," "Management's Discussion and Analysis of Financial Condition and Results of Operations," and elsewhere in this report may contain forward-looking statements which reflect our current views with respect to future events and financial performance. These forward-looking statements are made within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, or the Exchange Act. We intend such forward-looking statements to be covered by the safe harbor provisions for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995, and we are including this statement for purposes of complying with these safe harbor provisions. We have based these forward-looking statements on our current expectations and projections about future events, trends and uncertainties. These forward-looking statements are not guarantees of future performance and are subject to risks, uncertainties and assumptions, including the information discussed under the section entitled "Risk Factors" in this report. In making these statements, we are not undertaking to address or update them in future filings or communications regarding our business or results. Our business is highly complicated, regulated and competitive with many different factors affecting results.

PART I

ITEM 1. BUSINESS

General

Headquartered in Louisville, Kentucky, Humana Inc. and its subsidiaries, referred to throughout this document as "we," "us," "our," the "Company" or "Humana," is a leading health and well-being company committed to helping our millions of medical and specialty members achieve their best health. Our successful history in care delivery and health plan administration is helping us create a new kind of integrated care with the power to improve health and well being and lower costs. Our efforts are leading to a better quality of life for people with Medicare, families, individuals, military service personnel, and communities at large. To accomplish that, we support physicians and other health care professionals as they work to deliver the right care in the right place for their patients, our members. Our range of clinical capabilities, resources and tools, such as in home care, behavioral health, pharmacy services, data analytics and wellness solutions, combine to produce a simplified experience that makes health care easier to navigate and more effective.

As of December 31, 2018, we had approximately 17 million members in our medical benefit plans, as well as approximately 6 million members in our specialty products. During 2018, 81% of our total premiums and services revenue were derived from contracts with the federal government, including 15% derived from our individual Medicare Advantage contracts in Florida with the Centers for Medicare and Medicaid Services, or CMS, under which we provide health insurance coverage to approximately 636,800 members as of December 31, 2018.

Humana Inc. was organized as a Delaware corporation in 1964. Our principal executive offices are located at 500 West Main Street, Louisville, Kentucky 40202, the telephone number at that address is (502) 580-1000, and our website address is www.humana.com. We have made available free of charge through the Investor Relations section of our web site our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements, and, if applicable, amendments to those reports filed or furnished pursuant to Section 13(a) of the Exchange Act, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission.

This Annual Report on Form 10-K, or 2018 Form 10-K, contains both historical and forward-looking information. See Item 1A. – Risk Factors in this 2018 Form 10-K for a description of a number of factors that may adversely affect our results or business.

Business Segments

We manage our business with four reportable segments: Retail, Group and Specialty, Healthcare Services, and Individual Commercial. In addition, the Other Businesses category includes businesses that are not individually reportable because they do not meet the quantitative thresholds required by generally accepted accounting principles. These segments are based on a combination of the type of health plan customer and adjacent businesses centered on well-being solutions for our health plans and other customers, as described below. These segment groupings are consistent with information used by our Chief Executive Officer to assess performance and allocate resources. See Note 17 to the consolidated financial statements included in Item 8. - Financial Statements and Supplementary Data for segment financial information.

Our Products

Our medical and specialty insurance products allow members to access health care services primarily through our networks of health care providers with whom we have contracted. These products may vary in the degree to which members have coverage. Health maintenance organizations, or HMOs, include comprehensive managed care benefits generally through a participating network of physicians, hospitals, and other providers. Preferred provider organizations, or PPOs, provide members the freedom to choose any health care provider. However PPOs generally require the member to pay a greater portion of the provider's fee in the event the member chooses not to use a provider participating in the PPO's network. Point of Service, or POS, plans combine the advantages of HMO plans with the flexibility of PPO plans. In general, POS plans allow members to choose, at the time medical services are needed, to seek care from a provider within the plan's network or outside the network. In addition, we offer services to our health plan members as well as to third parties that promote health and wellness, including pharmacy solutions, provider, and clinical programs, as well as services and capabilities to advance population health. At the core of our strategy is our integrated care delivery model, which unites quality care, high member engagement, and sophisticated data analytics. Three core elements of the model are to improve the consumer experience by simplifying the interaction with us, engaging members in clinical programs, and offering assistance to providers in transitioning from a fee-for-service to a value-based arrangement. Our approach to primary, physician-directed care for our members aims to provide quality care that is consistent, integrated, cost-effective, and member-focused. The model is designed to improve health outcomes and affordability for individuals and for the health system as a whole, while offering our members a simple, seamless healthcare experience. The discussion that follows describes the products offered by each of our segments.

Our Retail Segment Products

This segment is comprised of products sold on a retail basis to individuals including medical and supplemental benefit plans described in the discussion that follows. The following table presents our premiums and services revenue for the Retail segment by product for the year ended December 31, 2018:

	Retail Segment Premiums and Services Revenue	Percent of Consolidated Premiums and Services Revenue
	(dollars in millions)	
Premiums:		
Individual Medicare Advantage	$35,656	63.2 %
Group Medicare Advantage	6,103	10.8 %
Medicare stand-alone PDP	3,584	6.4 %
Total Retail Medicare	45,343	80.4 %
State-based Medicaid	2,255	4.0 %
Medicare Supplement	510	0.9 %
Total premiums	48,108	85.3 %
Services	11	— %
Total premiums and services revenue	$48,119	85.3 %

Medicare

We have participated in the Medicare program for private health plans for over 30 years and have established a national presence, offering at least one type of Medicare plan in all 50 states. We have a geographically diverse membership base that we believe provides us with greater ability to expand our network of PPO and HMO providers. We employ strategies including health assessments and clinical guidance programs such as lifestyle and fitness programs for seniors to guide Medicare beneficiaries in making cost-effective decisions with respect to their health care. We believe these strategies result in cost savings that occur from making positive behavior changes.

Medicare is a federal program that provides persons age 65 and over and some disabled persons under the age of 65 certain hospital and medical insurance benefits. CMS, an agency of the United States Department of Health and Human Services, administers the Medicare program. Hospitalization benefits are provided under Part A, without the payment of any premium, for up to 90 days per incident of illness plus a lifetime reserve aggregating 60 days. Eligible beneficiaries are required to pay an annually adjusted premium to the federal government to be eligible for physician care and other services under Part B. Beneficiaries eligible for Part A and Part B coverage under traditional fee-for-service Medicare are still required to pay out-of-pocket deductibles and coinsurance. Throughout this document this program is referred to as Medicare FFS. As an alternative to Medicare FFS, in geographic areas where a managed care organization has contracted with CMS pursuant to the Medicare Advantage program, Medicare beneficiaries may choose to receive benefits from a Medicare Advantage organization under Medicare Part C. Pursuant to Medicare Part C, Medicare Advantage organizations contract with CMS to offer Medicare Advantage plans to provide benefits at least comparable to those offered under Medicare FFS. Our Medicare Advantage, or MA, plans are discussed more fully below. Prescription drug benefits are provided under Part D.

Individual Medicare Advantage Products

We contract with CMS under the Medicare Advantage program to provide a comprehensive array of health insurance benefits, including wellness programs, chronic care management, and care coordination, to Medicare eligible persons under HMO, PPO, and Private Fee-For-Service, or PFFS, plans in exchange for contractual payments received from CMS, usually a fixed payment per member per month. With each of these products, the beneficiary receives benefits in excess of Medicare FFS, typically including reduced cost sharing, enhanced prescription drug benefits, care coordination, data analysis techniques to help identify member needs, complex case management, tools to guide members in their health care decisions, care management programs, wellness and prevention programs and, in some instances, a reduced monthly Part B premium. Most Medicare Advantage plans offer the prescription drug benefit under Part D as part of the basic plan, subject to cost sharing and other limitations. Accordingly, all of the provisions of the Medicare Part D program described in connection with our stand-alone prescription drug plans in the following section also are applicable to most of our Medicare Advantage plans. Medicare Advantage plans may charge beneficiaries monthly premiums and other copayments for Medicare-covered services or for certain extra benefits. Generally, Medicare-eligible individuals enroll in one of our plan choices between October 15 and December 7 for coverage that begins on the following January 1.

Our Medicare HMO and PPO plans, which cover Medicare-eligible individuals residing in certain counties, may eliminate or reduce coinsurance or the level of deductibles on many other medical services while seeking care from participating in-network providers or in emergency situations. Except in emergency situations or as specified by the plan, most HMO plans provide no out-of-network benefits. PPO plans carry an out-of network benefit that is subject to higher member cost-sharing. In some cases, these beneficiaries are required to pay a monthly premium to the HMO or PPO plan in addition to the monthly Part B premium they are required to pay the Medicare program.

Most of our Medicare PFFS plans are network-based products with in and out of network benefits due to a requirement that Medicare Advantage organizations establish adequate provider networks, except in geographic areas that CMS determines have fewer than two network-based Medicare Advantage plans. In these areas, we offer Medicare PFFS plans that have no preferred network. Individuals in these plans pay us a monthly premium to receive typical Medicare Advantage benefits along with the freedom to choose any health care provider that accepts individuals at rates equivalent to Medicare FFS payment rates.

CMS uses monthly rates per person for each county to determine the fixed monthly payments per member to pay to health benefit plans. These rates are adjusted under CMS's risk-adjustment model which uses health status indicators, or risk scores, to improve the accuracy of payment. The risk-adjustment model, which CMS implemented pursuant to the Balanced Budget Act of 1997 (BBA) and the Benefits Improvement and Protection Act of 2000 (BIPA), generally pays more for members with predictably higher costs and uses principal hospital inpatient diagnoses as well as diagnosis data from ambulatory treatment settings (hospital outpatient department and physician visits) to establish the risk-adjustment payments. Under the risk-adjustment methodology, all health benefit organizations must collect from providers and submit the necessary diagnosis code information to CMS within prescribed deadlines. CMS is phasing-in the process of calculating risk scores using diagnoses data from the Risk Adjustment Processing System, or RAPS, to diagnoses data from the Encounter Data System, or EDS. The RAPS process requires MA plans to apply a filter logic based on CMS guidelines and only submit diagnoses that satisfy those guidelines. For submissions through EDS, CMS requires MA plans to submit all the encounter data and CMS will apply the risk adjustment filtering logic to determine the risk scores. For 2018, 15% of the risk score was calculated from claims data submitted through EDS. In 2019 and 2020 CMS will increase that percentage to 25% and 50%, respectively. For more information refer to Note 16 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data and Item 1A. - Risk Factors.

At December 31, 2018, we provided health insurance coverage under CMS contracts to approximately 3,064,000 individual Medicare Advantage members, including approximately 636,800 members in Florida. These Florida contracts accounted for premiums revenue of approximately $8.2 billion, which represented approximately 23.0% of our individual Medicare Advantage premiums revenue, or 14.6% of our consolidated premiums and services revenue for the year ended December 31, 2018.

Our HMO, PPO, and PFFS products covered under Medicare Advantage contracts with CMS are renewed generally for a calendar year term unless CMS notifies us of its decision not to renew by May 1 of the calendar year in which the contract would end, or we notify CMS of our decision not to renew by the first Monday in June of the calendar year in which the contract would end. All material contracts between Humana and CMS relating to our Medicare Advantage products have been renewed for 2019, and all of our product offerings filed with CMS for 2019 have been approved.

Individual Medicare Stand-Alone Prescription Drug Products

We offer stand-alone prescription drug plans, or PDPs, under Medicare Part D, including a PDP offering co-branded with Wal-Mart Stores, Inc., or the Humana-Walmart plan. Generally, Medicare-eligible individuals enroll in one of our plan choices between October 15 and December 7 for coverage that begins on the following January 1. Our stand-alone PDP offerings consist of plans offering basic coverage with benefits mandated by Congress, as well as plans providing enhanced coverage with varying degrees of out-of-pocket costs for premiums, deductibles, and co-insurance. Our revenues from CMS and the beneficiary are determined from our PDP bids submitted annually to CMS. These revenues also reflect the health status of the beneficiary and risk sharing provisions as more fully described in Note 2 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data, titled "Medicare Part D." Our stand-alone PDP contracts with CMS are renewed generally for a calendar year term unless CMS notifies us of its decision not to renew by May 1 of the calendar year in which the contract would end, or we notify CMS of our decision not to renew by the first Monday in June of the calendar year in which the contract would end. All material contracts between Humana and CMS relating to our Medicare stand-alone PDP products have been renewed for 2019, and all of our product offerings filed with CMS for 2019 have been approved.

We have administered CMS's Limited Income Newly Eligible Transition, or LI-NET, prescription drug plan program since 2010. This program allows individuals who receive Medicare's low-income subsidy to also receive immediate prescription drug coverage at the point of sale if they are not already enrolled in a Medicare Part D plan. CMS temporarily enrolls newly identified individuals with both Medicare and Medicaid into the LI-NET prescription drug plan program, and subsequently transitions each member into a Medicare Part D plan that may or may not be a Humana Medicare plan.

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Group Medicare Advantage and Medicare stand-alone PDP

We offer products that enable employers that provide post-retirement health care benefits to replace Medicare wrap or Medicare supplement products with Medicare Advantage or stand-alone PDPs from Humana. These products offer the same types of benefits and services available to members in our individual Medicare plans discussed previously and can be tailored to closely match an employer's post-retirement benefit structure.

State-based Medicaid Contracts

Our state-based contracts allow us to serve members enrolled in state-based Medicaid programs including Temporary Assistance to Needy Families, or TANF, Aged, Blind, and Disabled, or ABD, Long-Term Support Services, or LTSS, and the CMS Financial Alignment dual eligible demonstration programs. TANF and ABD programs are traditional Medicaid programs that are state and federally funded and provide cash assistance and supportive services to assist qualifying aged, blind, or disabled individuals, as well as families with children under age 18, helping them achieve economic self-sufficiency. LTSS is a state and federally funded program that offers states a broad and flexible set of program design options and refers to the delivery of long-term support services for our members who receive home and community or institution-based services for long-term care. Our contracts are generally for three to five year terms.

We have contracts to serve Medicaid eligible members in Florida and Kentucky under traditional programs, as well as contracts in Florida under the LTSS program. Our Kentucky Medicaid contract is subject to a 100% coinsurance contract with CareSource Management Group Company, ceding all the risk to CareSource.

Medicare beneficiaries who also qualify for Medicaid due to low income or special needs are known as dual eligible beneficiaries, or dual eligibles. The dual eligible population represents a disproportionate share of Medicaid and Medicare costs. States require special coordinating contracts for plans to offer Medicare Advantage dual eligible special needs plans, or D-SNPs. These largely operate separate from traditional Medicaid and LTSS programs. Some states are moving to support the dual eligible population by linking D-SNP participation to enrollment in a plan that also participates in a state-based Medicaid program to coordinate and integrate both Medicare and Medicaid benefits. Beginning in 2021, based on new federal requirements, D-SNPs will be required to more fully integrate Medicare and Medicaid benefits and states will have authority to require linkages to state-based traditional Medicaid and/or LTSS contracts or alternatively, allow D-SNPs to operate without a link to such state-based contracts while meeting additional coordination standards; CMS has yet to finalize regulations.

We currently serve dual eligible members under the CMS stand-alone dual eligible demonstration program in Illinois, and continue to serve other dual eligible members enrolled in our Medicare Advantage and stand-alone prescription drug plans.

Our Group and Specialty Segment Products

The Group and Specialty segment consists of employer group commercial fully-insured medical and specialty health insurance benefits marketed to individuals and employer groups, including dental, vision and life insurance benefits, as well as administrative services only, or ASO products as described in the discussion that follows. The following table presents our premiums and services revenue for the Group and Specialty segment by product for the year ended December 31, 2018:

	Group and Specialty Segment Premiums and Services Revenue	Percent of Consolidated Premiums and Services Revenue	
	(dollars in millions)		
External Revenue:			
Premiums:			
Fully-insured commercial group	$ 5,444	9.7	%
Specialty	1,359	2.4	%
Total premiums	6,803	12.1	%
Services	835	1.5	%
Total premiums and services revenue	$ 7,638	13.6	%
Intersegment services revenue	$ 18	n/a	

n/a – not applicable

Group Commercial Coverage

Our commercial products sold to employer groups include a broad spectrum of major medical benefits with multiple in-network coinsurance levels and annual deductible choices that employers of all sizes can offer to their employees on either a fully-insured, through HMO, PPO, or POS plans, or self-funded basis. Our plans integrate clinical programs, plan designs, communication tools, and spending accounts. We participate in the Federal Employee Health Benefits Program, or FEHBP, primarily with our HMO offering in certain markets. FEHBP is the government’s health insurance program for Federal employees, retirees, former employees, family members, and spouses.

Our administrative services only, or ASO, products are offered to employers who self-insure their employee health plans. We receive fees to provide administrative services which generally include the processing of claims, offering access to our provider networks and clinical programs, and responding to customer service inquiries from members of self-funded employers. These products may include all of the same benefit and product design characteristics of our fully-insured HMO, PPO, or POS products described previously. Under ASO contracts, self-funded employers generally retain the risk of financing substantially all of the cost of health benefits. However, substantially all of our ASO customers purchase stop loss insurance coverage from us to cover catastrophic claims or to limit aggregate annual costs.

Employers can customize their offerings with optional benefits such as dental, vision, and life products. We also offer optional benefits such as dental and vision to individuals.

Military Services

Under our TRICARE contracts with the United States Department of Defense, or DoD, we provide administrative services to arrange health care services for the dependents of active duty military personnel and for retired military personnel and their dependents. We have participated in the TRICARE program since 1996 under contracts with the DoD. Under our contracts, we provide administrative services while the federal government retains all of the risk of the cost of health benefits. Accordingly, we account for revenues under the current contract net of estimated health care costs similar to an administrative services fee only agreement. On January 1, 2018, we began to deliver services under the T2017 East Region contract. The T2017 East Region contract is a consolidation of the former T3 North and South Regions, comprising thirty-two states and approximately 6 million TRICARE beneficiaries. The T2017 East Region contract is a 5-year contract set to expire on December 31, 2022 and is subject to renewals on January 1 of each year during its term at the government's option.

Our Healthcare Services Segment Products

The products offered by our Healthcare Services segment are key to our integrated care delivery model. This segment is comprised of stand-alone businesses that offer services including pharmacy solutions, provider services, clinical care services, and predictive modeling and informatics services to other Humana businesses, as well as external health plan members, external health plans, and other employers or individuals and are described in the discussion that follows. Our intersegment revenue is described in Note 17 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data. The following table presents our services revenue for the Healthcare Services segment by line of business for the year ended December 31, 2018:

	Healthcare Services Segment Services Revenue	Percent of Consolidated Premiums and Services Revenue
	(dollars in millions)	
Intersegment revenue:		
Pharmacy solutions	$20,514	n/a
Provider services	1,994	n/a
Clinical care services	662	n/a
Total intersegment revenue	$23,170	
External services revenue:		
Pharmacy solutions	$203	0.4 %
Provider services	228	0.4 %
Clinical care services	176	0.3 %
Total external services revenue	$607	1.1 %

n/a – not applicable

Pharmacy solutions

Humana Pharmacy Solutions®, or HPS, manages traditional prescription drug coverage for both individuals and employer groups in addition to providing a broad array of pharmacy solutions. HPS also operates prescription mail order services for brand, generic, and specialty drugs and diabetic supplies through Humana Pharmacy, Inc.

Provider services

We operate full-service, multi-specialty medical centers in a number of states, primarily in Florida and Texas, staffed by primary care providers and medical specialists practicing cardiology, endocrinology, geriatric medicine, internal medicine, ophthalmology, neurology, and podiatry. Our care delivery subsidiaries operate our medical center business through both employed physicians and care providers, and through third party management service organizations with whom we contract to arrange for and manage certain clinical services.

We also operate Transcend, a Medical Services Organization, or MSO, that coordinates medical care for Medicare Advantage beneficiaries primarily in four states. Transcend provides resources in care coordination, financial risk management, clinical integration and patient engagement that help physicians improve the patient experience as well as care outcomes. Transcend collaborates with physicians, medical groups and integrated delivery systems to successfully transition to value-based care by engaging, partnering and offering practical services and solutions. Transcend represents a key component of our integrated care delivery model which we believe is scalable to new markets.

During 2018, we acquired the remaining equity interest in MCCI Holdings, LLC, or MCCI, a privately held management service organization and healthcare provider headquartered in Miami, Florida, that primarily coordinates medical care for Medicare Advantage beneficiaries in Florida and Texas. In addition, during 2018, we acquired Family Physicians Group, or FPG, which serves Medicare Advantage and Managed Medicaid HMO patients in Greater Orlando, Florida with a footprint that includes clinics located in Lake, Orange, Osceola and Seminole counties. See Note 3 to the consolidated financial statements included in Item 8. - Financial Statements and Supplementary Data.

Clinical care services

Via in-home care, telephonic health counseling/coaching, and remote monitoring, we are actively involved in the care management of our customers with the greatest needs. Clinical care services include the operations of Humana At Home, Inc., or Humana At Home®. As a chronic-care provider of in-home care for seniors, we provide innovative and holistic care coordination services for individuals living with multiple chronic conditions, individuals with disabilities, fragile and aging-in-place members and their care givers. We focus our deployment of these services in geographies with a high concentration of members living with multiple chronic conditions. The clinical support and care provided by Humana At Home is designed to improve health outcomes and result in a higher number of days members can spend at their homes instead of in an acute care facility. At December 31, 2018, we have enrolled approximately 716,000 members, with complex chronic conditions participating in a Humana Chronic Care Program, reflecting enhanced predictive modeling capabilities and focus on proactive clinical outreach and member engagement, particularly for our Medicare Advantage membership. These members may not be unique to each program since members have the ability to enroll in multiple programs. We believe these initiatives lead to better health outcomes for our members and lower health care costs.

We have committed additional investments in our home care capabilities with our acquisition of a 40% minority interest in Kindred at Home, Inc., or Kindred at Home, and Curo Health Services, or Curo, which combined creates the nation's largest home health and hospice provider with 65% overlap with our individual Medicare Advantage business. See Note 3 to the consolidated financial statements included in Item 8. - Financial Statements and Supplementary Data.

We are committed to the integrated physical and mental health of our members. Accordingly, we take a holistic approach to healthcare, offering care management and wellness programs. These programs use our capabilities that enable us to create a more complete view of an individual’s health, designed to connect, coordinate and simplify health care while reducing costs. These capabilities include our health care analytics engine, which reviews billions of clinical data points on millions of patients each day to provide members, providers, and payers real-time clinical insights to identify evidence-based gaps-in-care, drug safety alerts and other critical health concerns to improve outcomes. Additionally, our technology connects Humana and disparate electronic health record systems to enable the exchange of essential health information in real-time to provide physicians and care teams with a single, comprehensive patient view.

Our care management programs take full advantage of the population health, wellness and clinical applications offered by CareHub, our clinical management tool used by providers and care managers across the company to help our members achieve their best health, to offer various levels of support, matching the intensity of the support to the needs of members with ongoing health challenges through telephonic and onsite programs. These programs include Personal Nurse, chronic condition management, and case management as well as programs supporting maternity, cancer, neonatal intensive care unit, and transplant services.

Wellness

We offer wellness solutions including our Go365 wellness and loyalty rewards program, employee assistance program, and clinical programs. These programs, when offered collectively to employer customers as our Total Health product, turn any standard plan of the employer's choosing into an integrated health and well-being solution that encourages participation in these programs.

Our Go365 program provides our members with access to a science-based, actuarially driven wellness and loyalty program that features a wide range of well-being tools and rewards that are customized to an individual’s needs and wants. A key element of the program includes a sophisticated health-behavior-change model supported by an incentive program.

Our Individual Commercial Segment Products

Our individual health plans were marketed under the HumanaOne brand. We offered products both on and off of the public exchange.

We discontinued substantially all off-exchange individual commercial medical plans effective January 1, 2017, and we exited our remaining individual commercial medical business effective January 1, 2018.

Other Businesses

Other Businesses includes those businesses that do not align with the reportable segments previously described, primarily our closed-block long-term care insurance policies, which was sold in 2018. For a detailed discussion of the sale refer to Note 3 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data.

Membership

The following table summarizes our total medical membership at December 31, 2018, by market and product:

	Retail Segment (in thousands)					Group and Specialty Segment					
	Individual Medicare Advantage	Group Medicare Advantage	Medicare stand-alone PDP	Medicare Supplement	State-based contracts	Fully-insured commercial Group	ASO	Military services	Total	Percent of Total	
Florida	636.8	9.9	234.2	11.4	333.4	125.7	36.2	—	1,387.6	8.4	%
Texas	246.9	241.9	305.1	10.6	—	171.6	30.4	—	1,006.5	6.1	%
Kentucky	89.0	63.7	215.6	5.8	—	112.6	138.5	—	625.2	3.8	%
California	70.9	0.2	484.4	20.3	—	—	—	—	575.8	3.5	%
Georgia	114.2	2.2	124.5	11.1	—	158.5	45.2	—	455.7	2.7	%
Illinois	108.7	23.3	185.2	5.7	7.7	46.0	76.8	—	453.4	2.7	%
Ohio	128.6	22.1	184.3	45.8	—	44.6	27.5	—	452.9	2.7	%
Missouri/Kansas	82.5	4.9	227.2	9.1	—	45.0	17.4	—	386.1	2.3	%
North Carolina	149.5	0.5	172.6	6.0	—	—	—	—	328.6	2.0	%
Tennessee	144.3	4.3	117.2	4.9	—	41.4	12.9	—	325.0	2.0	%
Louisiana	161.1	12.1	61.3	2.2	—	59.6	13.5	—	309.8	1.9	%
Wisconsin	58.7	10.0	121.6	6.3	—	68.7	36.8	—	302.1	1.8	%
Indiana	103.5	6.8	145.8	9.0	—	21.2	12.6	—	298.9	1.8	%
Virginia	121.6	3.1	159.1	8.6	—	—	—	—	292.4	1.8	%
Michigan	52.9	12.9	140.2	3.4	—	2.8	0.4	—	212.6	1.3	%
Arizona	76.0	0.4	97.6	4.8	—	25.0	5.5	—	209.3	1.3	%
Pennsylvania	46.6	0.4	156.2	4.7	—	—	—	—	207.9	1.2	%
South Carolina	87.0	0.5	71.3	5.2	—	—	—	—	164.0	1.0	%
Military services	—	—	—	—	—	—	—	5,928.6	5,928.6	35.8	%
Others	585.2	78.6	1,800.9	79.4	—	82.0	28.2	—	2,654.3	15.9	%
Totals	3,064.0	497.8	5,004.3	254.3	341.1	1,004.7	481.9	5,928.6	16,576.7	100.0	%

Provider Arrangements

We provide our members with access to health care services through our networks of health care providers whom we employ or with whom we have contracted, including hospitals and other independent facilities such as outpatient surgery centers, primary care providers, specialist physicians, dentists, and providers of ancillary health care services and facilities. These ancillary services and facilities include laboratories, ambulance services, medical equipment services, home health agencies, mental health providers, rehabilitation facilities, nursing homes, optical services, and pharmacies. Our membership base and the ability to influence where our members seek care generally enable us to obtain contractual discounts with providers.

We use a variety of techniques to provide access to effective and efficient use of health care services for our members. These techniques include the coordination of care for our members, product and benefit designs, hospital inpatient management systems, the use of sophisticated analytics, and enrolling members into various care management programs. The focal point for health care services in many of our HMO networks is the primary care provider who, under contract with us, provides services to our members, and may control utilization of appropriate services by directing or approving hospitalization and referrals to specialists and other providers. Some physicians may have arrangements under which they can earn bonuses when certain target goals relating to the provision of quality patient care are met. We have available care management programs related to complex chronic conditions such as congestive heart failure and coronary artery disease. We also have programs for prenatal and premature infant care, asthma related illness, end stage renal disease, diabetes, cancer, and certain other conditions.

We typically contract with hospitals on either (1) a per diem rate, which is an all-inclusive rate per day, (2) a case rate for diagnosis-related groups (DRG), which is an all-inclusive rate per admission, or (3) a discounted charge for inpatient hospital services. Outpatient hospital services generally are contracted at a flat rate by type of service, ambulatory payment classifications, or APCs, or at a discounted charge. APCs are similar to flat rates except multiple services and procedures may be aggregated into one fixed payment. These contracts are often multi-year agreements, with rates that are adjusted for inflation annually based on the consumer price index, other nationally recognized inflation indexes, or specific negotiations with the provider. Outpatient surgery centers and other ancillary providers typically are contracted at flat rates per service provided or are reimbursed based upon a nationally recognized fee schedule such as the Medicare allowable fee schedule.

Our contracts with physicians typically are renewed automatically each year, unless either party gives written notice, generally ranging from 90 to 120 days, to the other party of its intent to terminate the arrangement. Most of the physicians in our PPO networks and some of our physicians in our HMO networks are reimbursed based upon a fixed fee schedule, which typically provides for reimbursement based upon a percentage of the standard Medicare allowable fee schedule.

The terms of our contracts with hospitals and physicians may also vary between Medicare and commercial business. A significant portion of our Medicare network contracts, including those with both hospitals and physicians, are tied to Medicare reimbursement levels and methodologies.

Capitation

We offer providers a continuum of opportunities to increase the integration of care and offer assistance to providers in transitioning from a fee-for-service to a value-based arrangement. These include performance bonuses, shared savings and shared risk relationships. For some of our medical membership, we share risk with providers under capitation contracts where physicians and hospitals accept varying levels of financial risk for a defined set of membership, primarily HMO membership. Under the typical capitation arrangement, we prepay these providers a monthly fixed-fee per member, known as a capitation (per capita) payment, to cover all or a defined portion of the benefits provided to the capitated member.

We believe these risk-based models represent a key element of our integrated care delivery model at the core of our strategy. Our health plan subsidiaries may enter into these risk-based contracts with third party providers or our owned provider subsidiaries.

At December 31, 2018, approximately 1,128,500 members, or 6.8% of our medical membership, were covered under risk-based contracts, which provide all member benefits, including 942,000 individual Medicare Advantage members, or 30.7% of our total individual Medicare Advantage membership.

Physicians under capitation arrangements typically have stop loss coverage so that a physician’s financial risk for any single member is limited to a maximum amount on an annual basis. We typically process all claims and monitor the financial performance and solvency of our capitated providers. However, we delegated claim processing functions under capitation arrangements covering approximately 181,200 HMO members, including 168,900 individual Medicare Advantage members, or 17.9% of the 942,000 individual Medicare Advantage members covered under risk-based contracts at December 31, 2018, with the provider assuming substantially all the risk of coordinating the members’ health care benefits. Capitation expense under delegated arrangements for which we have a limited view of the underlying claims experience was approximately $1.5 billion, or 3.3% of total benefits expense, for the year ended December 31, 2018. We remain financially responsible for health care services to our members in the event our providers fail to provide such services.

Accreditation Assessment

Our accreditation assessment program consists of several internal programs, including those that credential providers and those designed to meet the audit standards of federal and state agencies as well as external accreditation standards. We also offer quality and outcome measurement and improvement programs such as the Health Care Effectiveness Data and Information Set, or HEDIS, which is used by employers, government purchasers and the National

Committee for Quality Assurance (NCQA) to evaluate health plans based on various criteria, including effectiveness of care and member satisfaction.

Providers participating in our networks must satisfy specific criteria, including licensing, patient access, office standards, after-hours coverage, and other factors. Most participating hospitals also meet accreditation criteria established by CMS and/or The Joint Commission.

Recredentialing of participating providers occurs every three years, unless otherwise required by state or federal regulations. Recredentialing of participating providers includes verification of their medical licenses, review of their malpractice liability claims histories, review of their board certifications, if applicable, and review of applicable quality information. A committee composed of a peer group of providers reviews the applications of providers being considered for credentialing and recredentialing.

We maintain accreditation for certain of our health plans and/or departments from NCQA, the Accreditation Association for Ambulatory Health Care (AAAHC), and/or URAC. All Federal Employee Health Benefit Plans are required to be accredited. Certain commercial businesses, such as those impacted by a third-party labor agreement or those where a request is made by the employer, may require or prefer accredited health plans.

NCQA reviews our compliance based on standards for quality improvement, population health management, credentialing, utilization management, network management, member connections, and member rights and responsibilities. We have achieved and maintained NCQA accreditation in many of our commercial, Medicare and Medicaid HMO/POS and PPO markets and our wellness program, Go365. Humana’s pharmacy organization is accredited by URAC.

Sales and Marketing

We use various methods to market our products, including television, radio, the Internet, telemarketing, and direct mailings.

At December 31, 2018, we employed approximately 1,500 sales representatives, as well as approximately 1,400 telemarketing representatives who assisted in the marketing of Medicare, including Medicare Advantage and PDP, in our Retail segment and specialty products in our Group and Specialty segment, including making appointments for sales representatives with prospective members. We have a marketing arrangement with Wal-Mart Stores, Inc., or Wal-Mart, for our individual Medicare stand-alone PDP offering. We also sell group Medicare Advantage products through large employers. In addition, we market our Medicare and individual specialty products through licensed independent brokers and agents. For our Medicare products, commissions paid to employed sales representatives and independent brokers and agents are based on a per unit commission structure, regulated in structure and amount by CMS. For our individual specialty products, we generally pay brokers a commission based on premiums, with commissions varying by market and premium volume. In addition to a commission based directly on premium volume for sales to particular customers, we also have programs that pay brokers and agents based on other metrics. These include commission bonuses based on sales that attain certain levels or involve particular products. We also pay additional commissions based on aggregate volumes of sales involving multiple customers.

In our Group and Specialty segment, individuals may become members of our commercial HMOs and PPOs through their employers or other groups, which typically offer employees or members a selection of health insurance products, pay for all or part of the premiums, and make payroll deductions for any premiums payable by the employees. We attempt to become an employer’s or group’s exclusive source of health insurance benefits by offering a variety of HMO, PPO, and specialty products that provide cost-effective quality health care coverage consistent with the needs and expectations of their employees or members. We use licensed independent brokers, independent agents, digital insurance agencies, and employees to sell our group products. Many of our larger employer group customers are represented by insurance brokers and consultants who assist these groups in the design and purchase of health care products. We pay brokers and agents using the same commission structure described above for our specialty products.

Underwriting

Since 2014, the Patient Protection and Affordability Care Act and The Health Care and Education Reconciliation Act of 2010, which we collectively refer to as the Health Care Reform Law, requires certain group health plans to guarantee issuance and renew coverage without pre-existing condition exclusions or health-status rating adjustments. Accordingly, certain group health plans are not subject to underwriting. Further, underwriting techniques are not employed in connection with our Medicare, military services, or Medicaid products because government regulations require us to accept all eligible applicants regardless of their health or prior medical history.

Competition

The health benefits industry is highly competitive. Our competitors vary by local market and include other managed care companies, national insurance companies, and other HMOs and PPOs. Many of our competitors have a larger membership base and/or greater financial resources than our health plans in the markets in which we compete. Our ability to sell our products and to retain customers may be influenced by such factors as those described in Item 1A. – Risk Factors in this 2018 Form 10-K.

Government Regulation

Diverse legislative and regulatory initiatives at both the federal and state levels continue to affect aspects of the nation’s health care system, including the Health Care Reform Law.

Our management works proactively to ensure compliance with all governmental laws and regulations affecting our business. We are unable to predict how existing federal or state laws and regulations may be changed or interpreted, what additional laws or regulations affecting our businesses may be enacted or proposed, when and which of the proposed laws will be adopted or what effect any such new laws and regulations will have on our results of operations, financial position, or cash flows.

For a description of certain material current activities in the federal and state legislative areas, see Item 1A. – Risk Factors in this 2018 Form 10-K.

Certain Other Services

Captive Insurance Company

We bear general business risks associated with operating our Company such as professional and general liability, employee workers’ compensation, cybersecurity, and officer and director errors and omissions risks. Professional and general liability risks may include, for example, medical malpractice claims and disputes with members regarding benefit coverage. We retain certain of these risks through our wholly-owned, captive insurance subsidiary. We reduce exposure to these risks by insuring levels of coverage for losses in excess of our retained limits with a number of third-party insurance companies. We remain liable in the event these insurance companies are unable to pay their portion of the losses.

Centralized Management Services

We provide centralized management services to each of our health plans and to our business segments from our headquarters and service centers. These services include management information systems, product development and administration, finance, human resources, accounting, law, public relations, marketing, insurance, purchasing, risk management, internal audit, actuarial, underwriting, claims processing, billing/enrollment, and customer service. Through intercompany service agreements approved, if required, by state regulatory authorities, Humana Inc., our parent company, charges a management fee for reimbursement of certain centralized services provided to its subsidiaries.

Employees

As of December 31, 2018, we had approximately 41,600 employees and approximately 2,000 additional medical professionals working under management agreements primarily between us and affiliated physician-owned associations. We believe we have good relations with our employees and have not experienced any work stoppages.

ITEM 1A. RISK FACTORS

Risks Relating to Our Business

If we do not design and price our products properly and competitively, if the premiums we charge are insufficient to cover the cost of health care services delivered to our members, if we are unable to implement clinical initiatives to provide a better health care experience for our members, lower costs and appropriately document the risk profile of our members, or if our estimates of benefits expense are inadequate, our profitability may be materially adversely affected. We estimate the costs of our benefits expense payments, and design and price our products accordingly, using actuarial methods and assumptions based upon, among other relevant factors, claim payment patterns, medical cost inflation, and historical developments such as claim inventory levels and claim receipt patterns. We continually review these estimates, however these estimates involve extensive judgment, and have considerable inherent variability because they are extremely sensitive to changes in claim payment patterns and medical cost trends. Any reserve, including a premium deficiency reserve, may be insufficient.

We use a substantial portion of our revenues to pay the costs of health care services delivered to our members. These costs include claims payments, capitation payments to providers (predetermined amounts paid to cover services), and various other costs incurred to provide health insurance coverage to our members. These costs also include estimates of future payments to hospitals and others for medical care provided to our members. Generally, premiums in the health care business are fixed for one-year periods. Accordingly, costs we incur in excess of our benefit cost projections generally are not recovered in the contract year through higher premiums. We estimate the costs of our future benefit claims and other expenses using actuarial methods and assumptions based upon claim payment patterns, medical inflation, historical developments, including claim inventory levels and claim receipt patterns, and other relevant factors. We also record benefits payable for future payments. We continually review estimates of future payments relating to benefit claims costs for services incurred in the current and prior periods and make necessary adjustments to our reserves, including premium deficiency reserves where appropriate. However, these estimates involve extensive judgment, and have considerable inherent variability that is sensitive to claim payment patterns and medical cost trends. Many factors may and often do cause actual health care costs to exceed what was estimated and used to set our premiums. These factors may include:

- increased use of medical facilities and services;
- increased cost of such services;
- increased use or cost of prescription drugs, including specialty prescription drugs;
- the introduction of new or costly treatments, including new technologies;
- our membership mix;
- variances in actual versus estimated levels of cost associated with new products, benefits or lines of business, product changes or benefit level changes;
- changes in the demographic characteristics of an account or market;
- changes or reductions of our utilization management functions such as preauthorization of services, concurrent review or requirements for physician referrals;
- changes in our pharmacy volume rebates received from drug manufacturers;
- catastrophes, including acts of terrorism, public health epidemics, or severe weather (e.g. hurricanes and earthquakes);
- medical cost inflation; and
- government mandated benefits or other regulatory changes, including any that result from the Health Care Reform Law.

Key to our operational strategy is the implementation of clinical initiatives that we believe provide a better health care experience for our members, lower the cost of healthcare services delivered to our members, and appropriately document the risk profile of our members. Our profitability and competitiveness depend in large part on our ability to

appropriately manage health care costs through, among other things, the application of medical management programs such as our chronic care management program.

While we proactively attempt to effectively manage our operating expenses, increases or decreases in staff-related expenses, any costs associated with exiting products, additional investment in new products (including our opportunities in the Medicare programs, state-based contracts, and expansion of clinical capabilities as part of our integrated care delivery model), investments in health and well-being product offerings, acquisitions, new taxes and assessments (including the non-deductible health insurance industry fee), and implementation of regulatory requirements may increase our operating expenses.

Failure to adequately price our products or estimate sufficient benefits payable or effectively manage our operating expenses, may result in a material adverse effect on our results of operations, financial position, and cash flows.

We are in a highly competitive industry. Some of our competitors are more established in the health care industry in terms of a larger market share and have greater financial resources than we do in some markets. In addition, other companies may enter our markets in the future, including emerging competitors in the Medicare program or competitors in the delivery of health care services. We believe that barriers to entry in our markets are not substantial, so the addition of new competitors can occur relatively easily, and customers enjoy significant flexibility in moving between competitors. Contracts for the sale of commercial products are generally bid upon or renewed annually.

While health plans compete on the basis of many factors, including service and the quality and depth of provider networks, we expect that price will continue to be a significant basis of competition. In addition to the challenge of controlling health care costs, we face intense competitive pressure to contain premium prices. Factors such as business consolidations, strategic alliances, legislative reform, and marketing practices create pressure to contain premium price increases, despite being faced with increasing medical costs.

The policies and decisions of the federal and state governments regarding the Medicare, military and Medicaid programs in which we participate have a substantial impact on our profitability. These governmental policies and decisions, which we cannot predict with certainty, directly shape the premiums or other revenues to us under the programs, the eligibility and enrollment of our members, the services we provide to our members, and our administrative, health care services, and other costs associated with these programs. Legislative or regulatory actions, such as those resulting in a reduction in premium payments to us, an increase in our cost of administrative and health care services, or additional fees, taxes or assessments, may have a material adverse effect on our results of operations, financial position, and cash flows.

Premium increases, introduction of new product designs, and our relationships with our providers in various markets, among other issues, could also affect our membership levels. Other actions that could affect membership levels include our possible exit from or entrance into Medicare or commercial markets, or the termination of a large contract. If we do not compete effectively in our markets, if we set rates too high or too low in highly competitive markets to keep or increase our market share, if membership does not increase as we expect, if membership declines, or if we lose membership with favorable medical cost experience while retaining or increasing membership with unfavorable medical cost experience, our results of operations, financial position, and cash flows may be materially adversely affected.

If we fail to effectively implement our operational and strategic initiatives, including our Medicare initiatives and our state-based contracts strategy, our business may be materially adversely affected, which is of particular importance given the concentration of our revenues in these products. In addition, there can be no assurances that we will be successful in maintaining or improving our Star ratings in future years.

Our future performance depends in large part upon our ability to execute our strategy, including opportunities created by the expansion of our Medicare programs, the successful implementation of our integrated care delivery model and our strategy with respect to state-based contracts, including those covering members dually eligible for the Medicare and Medicaid programs.

We have made substantial investments in the Medicare program to enhance our ability to participate in these programs. We have increased the size of our Medicare geographic reach through expanded Medicare product offerings. We offer both stand-alone Medicare prescription drug coverage and Medicare Advantage health plans with prescription drug coverage in addition to our other product offerings. We offer a Medicare prescription drug plan in 50 states as well as Puerto Rico and the District of Columbia. The growth of our Medicare products is an important part of our business strategy. Any failure to achieve this growth may have a material adverse effect on our results of operations, financial position, or cash flows. In addition, the expansion of our Medicare products in relation to our other businesses may intensify the risks to us inherent in Medicare products. There is significant concentration of our revenues in Medicare products, with approximately 80% of our total premiums and services revenue for the year ended December 31, 2018 generated from our Medicare products, including 15% derived from our individual Medicare Advantage contracts with CMS in Florida. These expansion efforts may result in less diversification of our revenue stream and increased risks associated with operating in a highly regulated industry, as discussed further below.

The Health Care Reform Law created a federal Medicare-Medicaid Coordination Office to serve dual eligibles. This Medicare-Medicaid Coordination Office has initiated a series of state demonstration projects to experiment with better coordination of care between Medicare and Medicaid. Depending upon the results of those demonstration projects, CMS may change the way in which dual eligibles are serviced. If we are unable to implement our strategic initiatives to address the dual eligibles opportunity, including our participation in state-based contracts, or if our initiatives are not successful at attracting or retaining dual eligible members, our business may be materially adversely affected.

The achievement of Star ratings of 4-Star or higher qualifies Medicare Advantage plans for premium bonuses. Our Medicare Advantage plans' operating results may be significantly affected by their star ratings. Despite our operational efforts to improve our star ratings, there can be no assurances that we will be successful in maintaining or improving our star ratings in future years. In addition, audits of our performance for past or future periods may result in downgrades to our Star ratings. Accordingly, our plans may not be eligible for full level quality bonuses, which could adversely affect the benefits such plans can offer, reduce membership and/or reduce profit margins.

If we fail to properly maintain the integrity of our data, to strategically implement new information systems, or to protect our proprietary rights to our systems, our business may be materially adversely affected.

Our business depends significantly on effective information systems and the integrity and timeliness of the data we use to run our business. Our business strategy involves providing members and providers with easy to use products that leverage our information to meet their needs. Our ability to adequately price our products and services, provide effective and efficient service to our customers, and to timely and accurately report our financial results depends significantly on the integrity of the data in our information systems. As a result of our past and on-going acquisition activities, we have acquired additional information systems. We have reduced the number of systems we operate, have upgraded and expanded our information systems capabilities, and are gradually migrating existing business to fewer systems. Our information systems require an ongoing commitment of significant resources to maintain, protect, and enhance existing systems and develop new systems to keep pace with continuing changes in information processing technology, evolving industry and regulatory standards, and changing customer preferences. If the information we rely upon to run our businesses was found to be inaccurate or unreliable or if we fail to maintain effectively our information systems and data integrity, we could have operational disruptions, have problems in determining medical cost estimates and establishing appropriate pricing, have customer and physician and other health care provider disputes, have regulatory or other legal problems, have increases in operating expenses, lose existing customers, have difficulty in attracting new customers, or suffer other adverse consequences.

We depend on independent third parties for significant portions of our systems-related support, equipment, facilities, and certain data, including data center operations, data network, voice communication services and pharmacy data processing. This dependence makes our operations vulnerable to such third parties' failure to perform adequately under the contract, due to internal or external factors. A change in service providers could result in a decline in service quality and effectiveness or less favorable contract terms which may adversely affect our operating results.

We rely on our agreements with customers, confidentiality agreements with employees, and our trade secrets and copyrights to protect our proprietary rights. These legal protections and precautions may not prevent misappropriation of our proprietary information. In addition, substantial litigation regarding intellectual property rights exists in the

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software industry, including litigation involving end users of software products. We expect software products to be increasingly subject to third-party infringement claims as the number of products and competitors in this area grows.
There can be no assurance that our information technology, or IT, process will successfully improve existing systems, develop new systems to support our expanding operations, integrate new systems, protect our proprietary information, defend against cybersecurity attacks, or improve service levels. In addition, there can be no assurance that additional systems issues will not arise in the future. Failure to adequately protect and maintain the integrity of our information systems and data, or to defend against cybersecurity attacks, may result in a material adverse effect on our results of operations, financial position, and cash flows.
If we are unable to defend our information technology security systems against cybersecurity attacks or prevent other privacy or data security incidents that result in security breaches that disrupt our operations or in the unintended dissemination of sensitive personal information or proprietary or confidential information, we could be exposed to significant regulatory fines or penalties, liability or reputational damage, or experience a material adverse effect on our results of operations, financial position, and cash flows.
In the ordinary course of our business, we process, store and transmit large amounts of data, including sensitive personal information as well as proprietary or confidential information relating to our business or a third-party. We have been, and will likely continue to be, regular targets of attempted cybersecurity attacks and other security threats and may be subject to breaches of our information technology security systems. Although the impact of such attacks has not been material to our operations or results of operations, financial position, or cash flow through December 31, 2018, we can provide no assurance that we will be able to detect, prevent, or contain the effects of such cybersecurity attacks or other information security risks or threats in the future. A cybersecurity attack may penetrate our layered security controls and misappropriate or compromise sensitive personal information or proprietary or confidential information or that of third-parties, create system disruptions, cause shutdowns, or deploy viruses, worms, and other malicious software programs that attack our systems. A cybersecurity attack that bypasses our IT security systems successfully could materially affect us due to the theft, destruction, loss, misappropriation or release of confidential data or intellectual property, operational or business delays resulting from the disruption of our IT systems, or negative publicity resulting in reputation or brand damage with our members, customers, providers, and other stakeholders. In certain circumstances we may rely on third party vendors to process, store and transmit large amounts of data for our businesses whose operations are subject to similar risks.
The costs to eliminate or address cybersecurity threats and vulnerabilities before or after an incident could be substantial. Our remediation efforts may not be successful and could result in interruptions, delays, or cessation of service, and loss of existing or potential members. In addition, breaches of our security measures and the unauthorized dissemination of sensitive personal information or proprietary or confidential information about us or our members or other third-parties, could expose our associates' or members’ private information and result in the risk of financial or medical identity theft, or expose us or other third-parties to a risk of loss or misuse of this information, result in significant regulatory fines or penalties, litigation and potential liability for us, damage our brand and reputation, or otherwise harm our business.
We are involved in various legal actions and governmental and internal investigations, any of which, if resolved unfavorably to us, could result in substantial monetary damages or changes in our business practices. Increased litigation and negative publicity could increase our cost of doing business.
We are or may become a party to a variety of legal actions that affect our business, including breach of contract actions, employment and employment discrimination-related suits, employee benefit claims, stockholder suits and other securities laws claims, and tort claims.
In addition, because of the nature of the health care business, we are subject to a variety of legal actions relating to our business operations, including the design, management, and offering of products and services. These include and could include in the future:

- claims relating to the methodologies for calculating premiums;
- claims relating to the denial of health care benefit payments;

- claims relating to the denial or rescission of insurance coverage;
- challenges to the use of some software products used in administering claims;
- claims relating to our administration of our Medicare Part D offerings;
- medical malpractice actions based on our medical necessity decisions or brought against us on the theory that we are liable for providers' alleged malpractice;
- claims arising from any adverse medical consequences resulting from our recommendations about the appropriateness of providers' proposed medical treatment plans for patients;
- allegations of anti-competitive and unfair business activities;
- provider disputes over compensation or non-acceptance or termination of provider contracts;
- disputes related to ASO business, including actions alleging claim administration errors;
- qui tam litigation brought by individuals who seek to sue on behalf of the government, alleging that we, as a government contractor, submitted false claims to the government including, among other allegations, resulting from coding and review practices under the Medicare risk-adjustment model;
- claims related to the failure to disclose some business practices;
- claims relating to customer audits and contract performance;
- claims relating to dispensing of drugs associated with our in-house mail-order pharmacy; and
- professional liability claims arising out of the delivery of healthcare and related services to the public.

In some cases, substantial non-economic or punitive damages as well as treble damages under the federal False Claims Act, Racketeer Influenced and Corrupt Organizations Act and other statutes may be sought.

While we currently have insurance coverage for some of these potential liabilities, other potential liabilities may not be covered by insurance, insurers may dispute coverage, or the amount of our insurance may not be enough to cover the damages awarded. In addition, some types of damages, like punitive damages, may not be covered by insurance. In some jurisdictions, coverage of punitive damages is prohibited. Insurance coverage for all or some forms of liability may become unavailable or prohibitively expensive in the future.

The health benefits industry continues to receive significant negative publicity reflecting the public perception of the industry. This publicity and perception have been accompanied by increased litigation, including some large jury awards, legislative activity, regulation, and governmental review of industry practices. These factors may materially adversely affect our ability to market our products or services, may require us to change our products or services or otherwise change our business practices, may increase the regulatory burdens under which we operate, and may require us to pay large judgments or fines. Any combination of these factors could further increase our cost of doing business and adversely affect our results of operations, financial position, and cash flows.

See "Legal Proceedings and Certain Regulatory Matters" in Note 16 to the consolidated financial statements included in Item 8. - Financial Statements and Supplementary Data. We cannot predict the outcome of these matters with certainty.

As a government contractor, we are exposed to risks that may materially adversely affect our business or our willingness or ability to participate in government health care programs.

A significant portion of our revenues relates to federal and state government health care coverage programs, including the Medicare, military, and Medicaid programs. These programs accounted for approximately 85% of our total premiums and services revenue for the year ended December 31, 2018. These programs involve various risks, as described further below.

- At December 31, 2018, under our contracts with CMS we provided health insurance coverage to approximately 636,800 individual Medicare Advantage members in Florida. These contracts accounted for

approximately 15% of our total premiums and services revenue for the year ended December 31, 2018. The loss of these and other CMS contracts or significant changes in the Medicare program as a result of legislative or regulatory action, including reductions in premium payments to us or increases in member benefits without corresponding increases in premium payments to us, may have a material adverse effect on our results of operations, financial position, and cash flows.

- At December 31, 2018, our military services business, which accounted for approximately 1% of our total premiums and services revenue for the year ended December 31, 2018, primarily consisted of the TRICARE T2017 East Region contract replacing the 5-year T3 South Region contract that expired on December 31, 2017. The T2017 East Region contract is a consolidation of the former T3 North and South Regions, comprising thirty-two states and approximately 6 million TRICARE beneficiaries, under which delivery of health care services commenced on January 1, 2018. The T2017 East Region contract is a 5 -year contract set to expire on December 31, 2022 and is subject to renewals on January 1 of each year during its term at the government's option. The loss of the TRICARE T2017 East Region contract may have a material adverse effect on our results of operations, financial position, and cash flows.
- There is a possibility of temporary or permanent suspension from participating in government health care programs, including Medicare and Medicaid, if we are convicted of fraud or other criminal conduct in the performance of a health care program or if there is an adverse decision against us under the federal False Claims Act. As a government contractor, we may be subject to qui tam litigation brought by individuals who seek to sue on behalf of the government, alleging that the government contractor submitted false claims to the government. Litigation of this nature is filed under seal to allow the government an opportunity to investigate and to decide if it wishes to intervene and assume control of the litigation. If the government does not intervene, the lawsuit is unsealed, and the individual may continue to prosecute the action on his or her own.
- CMS uses a risk-adjustment model which adjusts premiums paid to Medicare Advantage, or MA, plans according to health status of covered members. The risk-adjustment model, which CMS implemented pursuant to the Balanced Budget Act of 1997 (BBA) and the Benefits Improvement and Protection Act of 2000 (BIPA), generally pays more where a plan's membership has higher expected costs. Under this model, rates paid to MA plans are based on actuarially determined bids, which include a process whereby our prospective payments are based on our estimated cost of providing standard Medicare-covered benefits to an enrollee with a "national average risk profile." That baseline payment amount is adjusted to reflect the health status of our enrolled membership. Under the risk-adjustment methodology, all MA plans must collect and submit the necessary diagnosis code information from hospital inpatient, hospital outpatient, and physician providers to CMS within prescribed deadlines. The CMS risk-adjustment model uses the diagnosis data to calculate the risk-adjusted premium payment to MA plans, which CMS adjusts for coding pattern differences between the health plans and the government fee-for-service program. We generally rely on providers, including certain providers in our network who are our employees, to code their claim submissions with appropriate diagnoses, which we send to CMS as the basis for our payment received from CMS under the actuarial risk-adjustment model. We also rely on these providers to document appropriately all medical data, including the diagnosis data submitted with claims. In addition, we conduct medical record reviews as part of our data and payment accuracy compliance efforts, to more accurately reflect diagnosis conditions under the risk adjustment model. These compliance efforts include the internal contract level audits described in more detail below, as well as ordinary course reviews of our internal business processes.
- CMS is phasing-in the process of calculating risk scores using diagnoses data from the Risk Adjustment Processing System, or RAPS, to diagnoses data from the Encounter Data System, or EDS. The RAPS process requires MA plans to apply a filter logic based on CMS guidelines and only submit diagnoses that satisfy those guidelines. For submissions through EDS, CMS requires MA plans to submit all the encounter data and CMS will apply the risk adjustment filtering logic to determine the risk scores. For 2018, 15% of the risk score was calculated from claims data submitted through EDS. In 2019 and 2020 CMS will increase that percentage to 25% and 50%, respectively. The phase-in from RAPS to EDS could result in different risk scores from each dataset as a result of plan processing issues, CMS processing issues, or filtering logic

differences between RAPS and EDS, and could have a material adverse effect on our results of operations, financial position, or cash flows.

CMS and the Office of the Inspector General of Health and Human Services, or HHS-OIG, are continuing to perform audits of various companies' selected MA contracts related to this risk adjustment diagnosis data. We refer to these audits as Risk-Adjustment Data Validation Audits, or RADV audits. RADV audits review medical records in an attempt to validate provider medical record documentation and coding practices which influence the calculation of premium payments to MA plans.

In 2012, CMS released a "Notice of Final Payment Error Calculation Methodology for Part C Medicare Advantage Risk Adjustment Data Validation (RADV) Contract-Level Audits." The payment error calculation methodology provided that, in calculating the economic impact of audit results for an MA contract, if any, the results of the RADV audit sample would be extrapolated to the entire MA contract after a comparison of the audit results to a similar audit of Medicare FFS (we refer to the process of accounting for errors in FFS claims as the "FFS Adjuster"). This comparison of RADV audit results to the FFS error rate is necessary to determine the economic impact, if any, of RADV audit results because the government used the Medicare FFS program data set, including any attendant errors that are present in that data set, to estimate the costs of various health status conditions and to set the resulting adjustments to MA plans' payment rates in order to establish actuarial equivalence in payment rates as required under the Medicare statute. CMS already makes other adjustments to payment rates based on a comparison of coding pattern differences between MA plans and Medicare FFS data (such as for frequency of coding for certain diagnoses in MA plan data versus the Medicare FFS program dataset).

The final RADV extrapolation methodology, including the first application of extrapolated audit results to determine audit settlements, is expected to be applied to CMS RADV contract level audits conducted for contract year 2011 and subsequent years. CMS is currently conducting RADV contract level audits for certain of our Medicare Advantage plans.

Estimated audit settlements are recorded as a reduction of premiums revenue in our consolidated statements of income, based upon available information. We perform internal contract level audits based on the RADV audit methodology prescribed by CMS. Included in these internal contract level audits is an audit of our Private Fee-For Service business which we used to represent a proxy of the FFS Adjuster which has not yet been finalized. We based our accrual of estimated audit settlements for each contract year on the results of these internal contract level audits and update our estimates as each audit is completed. Estimates derived from these results were not material to our results of operations, financial position, or cash flows. We report the results of these internal contract level audits to CMS, including identified overpayments, if any.

On October 26, 2018, CMS issued a proposed rule and accompanying materials (which we refer to as the "Proposed Rule") related to, among other things, the RADV audit methodology described above. If implemented, the Proposed Rule would use extrapolation in RADV audits applicable to payment year 2011 contract-level audits and all subsequent audits, without the application of a FFS Adjuster to audit findings. We are studying the Proposed Rule and CMS' underlying analysis contained therein. We believe, however, that the Proposed Rule fails to address adequately the statutory requirement of actuarial equivalence, and we expect to provide substantive comments to CMS on the Proposed Rule as part of the notice-and-comment rulemaking process. We are also evaluating the potential impact of the Proposed Rule, and any related regulatory, industry or company reactions, all or any of which could have a material adverse effect on our results of operations, financial position, or cash flows.

In addition, as part of our internal compliance efforts, we routinely perform ordinary course reviews of our internal business processes related to, among other things, our risk coding and data submissions in connection with the risk-adjustment model. These reviews may also result in the identification of errors and the submission of corrections to CMS, that may, either individually or in the aggregate, be material. As such, the result of these reviews may have a material adverse effect on our results of operations, financial position, or cash flows.

We believe that CMS' statements and policies regarding the requirement to report and return identified overpayments received by MA plans are inconsistent with CMS' 2012 RADV audit methodology, and the Medicare statute's requirements. These statements and policies, such as certain statements contained in the preamble to CMS' final rule release regarding Medicare Advantage and Part D prescription drug benefit program regulations for Contract Year 2015 (which we refer to as the "Overpayment Rule"), and the Proposed Rule, appear to equate each Medicare Advantage risk adjustment data error with an "overpayment" without addressing the principles underlying the FFS Adjuster referenced above. On September 7, 2018, the Federal District Court for the District of Columbia vacated CMS's Overpayment Rule, concluding that it violated the Medicare statute, including the requirement for actuarial equivalence, and that the Overpayment Rule was also arbitrary and capricious in departing from CMS's RADV methodology without adequate explanation (among other reasons). CMS has filed a motion for reconsideration related to certain aspects of the Federal District Court's opinion and has simultaneously filed a notice to appeal the decision to the Circuit Court of Appeals.

We will continue to work with CMS to ensure that MA plans are paid accurately and that payment model principles are in accordance with the requirements of the Social Security Act, which, if not implemented correctly could have a material adverse effect on our results of operations, financial position, or cash flows.

- Our CMS contracts which cover members' prescription drugs under Medicare Part D contain provisions for risk sharing and certain payments for prescription drug costs for which we are not at risk. These provisions, certain of which are described below, affect our ultimate payments from CMS.

The premiums from CMS are subject to risk corridor provisions which compare costs targeted in our annual bids to actual prescription drug costs, limited to actual costs that would have been incurred under the standard coverage as defined by CMS. Variances exceeding certain thresholds may result in CMS making additional payments to us or require us to refund to CMS a portion of the premiums we received (known as a "risk corridor"). We estimate and recognize an adjustment to premiums revenue related to the risk corridor payment settlement based upon pharmacy claims experience. The estimate of the settlement associated with these risk corridor provisions requires us to consider factors that may not be certain, including member eligibility differences with CMS. Our estimate of the settlement associated with the Medicare Part D risk corridor provisions was a net payable of $170 million and $279 million at December 31, 2018 and 2017, respectively.

Reinsurance and low-income cost subsidies represent payments from CMS in connection with the Medicare Part D program for which we assume no risk. Reinsurance subsidies represent payments for CMS's portion of claims costs which exceed the member's out-of-pocket threshold, or the catastrophic coverage level. Low-income cost subsidies represent payments from CMS for all or a portion of the deductible, the coinsurance and co-payment amounts above the out-of-pocket threshold for low-income beneficiaries. Monthly prospective payments from CMS for reinsurance and low-income cost subsidies are based on assumptions submitted with our annual bid. A reconciliation and settlement of CMS's prospective subsidies against actual prescription drug costs we paid is made after the end of the applicable year.

Settlement of the reinsurance and low-income cost subsidies as well as the risk corridor payment is based on a reconciliation made approximately 9 months after the close of each calendar year. This reconciliation process requires us to submit claims data necessary for CMS to administer the program. Our claims data may not pass CMS's claims edit processes due to various reasons, including discrepancies in eligibility or classification of low-income members. To the extent our data does not pass CMS's claim edit processes, we may bear the risk for all or a portion of the claim which otherwise may have been subject to the risk corridor provision or payment which we would have otherwise received as a low-income subsidy or reinsurance claim. In addition, in the event the settlement represents an amount CMS owes us, there is a negative impact on our cash flows and financial condition as a result of financing CMS's share of the risk. The opposite is true in the event the settlement represents an amount we owe CMS.

- We are also subject to various other governmental audits and investigations. Under state laws, our HMOs and health insurance companies are audited by state departments of insurance for financial and contractual compliance. Our HMOs are audited for compliance with health services by state departments of health. Audits and investigations, including audits of risk adjustment data, are also conducted by state attorneys

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general, CMS, HHS-OIG, the Office of Personnel Management, the Department of Justice, the Department of Labor, and the Defense Contract Audit Agency. All of these activities could result in the loss of licensure or the right to participate in various programs, including a limitation on our ability to market or sell products, the imposition of fines, penalties and other civil and criminal sanctions, or changes in our business practices. The outcome of any current or future governmental or internal investigations cannot be accurately predicted, nor can we predict any resulting penalties, fines or other sanctions that may be imposed at the discretion of federal or state regulatory authorities. Nevertheless, it is reasonably possible that any such outcome of litigation, penalties, fines or other sanctions could be substantial, and the outcome of these matters may have a material adverse effect on our results of operations, financial position, and cash flows. Certain of these matters could also affect our reputation. In addition, disclosure of any adverse investigation or audit results or sanctions could negatively affect our industry or our reputation in various markets and make it more difficult for us to sell our products and services.

The Health Care Reform Law could have a material adverse effect on our results of operations (including restricting revenue, enrollment and premium growth in certain products and market segments, restricting our ability to expand into new markets, increasing our medical and operating costs by, among other things, requiring a minimum benefit ratio on insured products, lowering our Medicare payment rates and increasing our expenses associated with a non-deductible health insurance industry fee and other assessments); our financial position (including our ability to maintain the value of our goodwill); and our cash flows.

The Patient Protection and Affordable Care Act and The Health Care and Education Reconciliation Act of 2010 (which we collectively refer to as the Health Care Reform Law) enacted significant reforms to various aspects of the U.S. health insurance industry. The provisions of the Health Care Reform Law include, among others, imposing a significant new non-deductible health insurance industry fee and other assessments on health insurers, limiting Medicare Advantage payment rates, stipulating a prescribed minimum ratio for the amount of premiums revenue to be expended on medical costs for insured products, additional mandated benefits and guarantee issuance associated with commercial medical insurance, requirements that limit the ability of health plans to vary premiums based on assessments of underlying risk, and heightened scrutiny by state and federal regulators of our business practices, including our Medicare bid and pricing practices. The Health Care Reform Law also specifies benefit design guidelines, limits rating and pricing practices, encourages additional competition (including potential incentives for new market entrants), establishes federally-facilitated or state-based exchanges for individuals and small employers (with up to 100 employees) coupled with programs designed to spread risk among insurers (subject to federal administrative action), and expands eligibility for Medicaid programs (subject to state-by-state implementation of this expansion). Financing for these reforms come, in part, from material additional fees and taxes on us and other health plans and individuals which began in 2014, as well as reductions in certain levels of payments to us and other health plans under Medicare. If we fail to effectively implement our operational and strategic initiatives with respect to the implementation of the Health Care Reform Law, our business may be materially adversely affected. Additionally, potential legislative changes or judicial determinations, including activities to repeal or replace the Health Care Reform Law or declare all or certain portions of the Health Care Reform Law unconstitutional, creates uncertainty for our business, and we cannot predict when, or in what form, such legislative changes or judicial determinations may occur.

For additional information, please refer to the section entitled, “Health Care Reform” in “Item 7 - Management’s Discussion and Analysis of Financial Condition and Results of Operations” appearing in this annual report.

Our business activities are subject to substantial government regulation. New laws or regulations, or changes in existing laws or regulations or their manner of application, including reductions in Medicare Advantage payment rates, could increase our cost of doing business and may adversely affect our business, profitability, financial condition, and cash flows.

In addition to the Health Care Reform Law, the health care industry in general and health insurance are subject to substantial federal and state government regulation:

Health Insurance Portability and Accountability Act (HIPAA) and the Health Information Technology for Economic and Clinical Health Act (HITECH Act)

The use of individually identifiable health data by our business is regulated at federal and state levels. These laws and rules are changed frequently by legislation or administrative interpretation. Various state laws address the use and maintenance of individually identifiable health data. Most are derived from the privacy provisions in the federal Gramm-Leach-Bliley Act and the Health Insurance Portability and Accountability Act, or HIPAA. HIPAA includes administrative provisions directed at simplifying electronic data interchange through standardizing transactions, establishing uniform health care provider, payer, and employer identifiers, and seeking protections for confidentiality and security of patient data. The rules do not provide for complete federal preemption of state laws, but rather preempt all inconsistent state laws unless the state law is more stringent.

These regulations set standards for the security of electronic health information, including requirements that insurers provide customers with notice regarding how their non-public personal information is used, including an opportunity to "opt out" of certain disclosures. Violations of these rules could subject us to significant criminal and civil penalties, including significant monetary penalties. Compliance with HIPAA regulations requires significant systems enhancements, training and administrative effort. HIPAA can also expose us to additional liability for violations by our business associates (e.g., entities that provide services to health plans and providers).

The HITECH Act, one part of the American Recovery and Reinvestment Act of 2009, significantly broadened the scope of the privacy and security regulations of HIPAA. Among other requirements, the HITECH Act and HIPAA mandate individual notification in the event of a breach of unsecured, individually identifiable health information, provides enhanced penalties for HIPAA violations, requires business associates to comply with certain provisions of the HIPAA privacy and security rule, and grants enforcement authority to state attorneys general in addition to the HHS Office of Civil Rights.

In addition, there are numerous federal and state laws and regulations addressing patient and consumer privacy concerns, including unauthorized access or theft of personal information. State statutes and regulations vary from state to state and could impose additional penalties. Violations of HIPAA or applicable federal or state laws or regulations could subject us to significant criminal or civil penalties, including significant monetary penalties. Compliance with HIPAA and other privacy regulations requires significant systems enhancements, training and administrative effort.

American Recovery and Reinvestment Act of 2009 (ARRA)

On February 17, 2009, the American Recovery and Reinvestment Act of 2009, or ARRA, was enacted into law. In addition to including a temporary subsidy for health care continuation coverage issued pursuant to the Consolidated Omnibus Budget Reconciliation Act, or COBRA, ARRA also expands and strengthens the privacy and security provisions of HIPAA and imposes additional limits on the use and disclosure of protected health information, or PHI. Among other things, ARRA requires us and other covered entities to report any unauthorized release or use of or access to PHI to any impacted individuals and to HHS in those instances where the unauthorized activity poses a significant risk of financial, reputational or other harm to the individuals, and to notify the media in any states where 500 or more people are impacted by any unauthorized release or use of or access to PHI. ARRA also requires business associates to comply with certain HIPAA provisions. ARRA also establishes higher civil and criminal penalties for covered entities and business associates who fail to comply with HIPAA’s provisions and requires HHS to issue regulations implementing its privacy and security enhancements.

Corporate Practice of Medicine and Other Laws

As a corporate entity, Humana Inc. is not licensed to practice medicine. Many states in which we operate through our subsidiaries limit the practice of medicine to licensed individuals or professional organizations comprised of licensed individuals, and business corporations generally may not exercise control over the medical decisions of physicians. Statutes and regulations relating to the practice of medicine, fee-splitting between physicians and referral sources, and similar issues vary widely from state to state. Under management agreements between certain of our subsidiaries and affiliated physician-owned professional groups, these groups retain sole responsibility for all medical decisions, as well as for hiring and managing physicians and other licensed healthcare providers, developing operating policies and procedures, implementing professional standards and controls, and maintaining malpractice insurance. We believe that our health services operations comply with applicable state statutes regarding corporate practice of medicine, fee-

splitting, and similar issues. However, any enforcement actions by governmental officials alleging non-compliance with these statutes, which could subject us to penalties or restructuring or reorganization of our business, may result in a material adverse effect on our results of operations, financial position, or cash flows.

Anti-Kickback, Physician Self-Referral, and Other Fraud and Abuse Laws

A federal law commonly referred to as the "Anti-Kickback Statute" prohibits the offer, payment, solicitation, or receipt of any form of remuneration to induce, or in return for, the referral of Medicare or other governmental health program patients or patient care opportunities, or in return for the purchase, lease, or order of items or services that are covered by Medicare or other federal governmental health programs. Because the prohibitions contained in the Anti-Kickback Statute apply to the furnishing of items or services for which payment is made in "whole or in part," the Anti-Kickback Statute could be implicated if any portion of an item or service we provide is covered by any of the state or federal health benefit programs described above. Violation of these provisions constitutes a felony criminal offense and applicable sanctions could include exclusion from the Medicare and Medicaid programs.

Section 1877 of the Social Security Act, commonly known as the "Stark Law," prohibits physicians, subject to certain exceptions described below, from referring Medicare or Medicaid patients to an entity providing "designated health services" in which the physician, or an immediate family member, has an ownership or investment interest or with which the physician, or an immediate family member, has entered into a compensation arrangement. These prohibitions, contained in the Omnibus Budget Reconciliation Act of 1993, commonly known as "Stark II," amended prior federal physician self-referral legislation known as "Stark I" by expanding the list of designated health services to a total of 11 categories of health services. The professional groups with which we are affiliated provide one or more of these designated health services. Persons or entities found to be in violation of the Stark Law are subject to denial of payment for services furnished pursuant to an improper referral, civil monetary penalties, and exclusion from the Medicare and Medicaid programs.

Many states also have enacted laws similar in scope and purpose to the Anti-Kickback Statute and, in more limited instances, the Stark Law, that are not limited to services for which Medicare or Medicaid payment is made. In addition, most states have statutes, regulations, or professional codes that restrict a physician from accepting various kinds of remuneration in exchange for making referrals. These laws vary from state to state and have seldom been interpreted by the courts or regulatory agencies. In states that have enacted these statutes, we believe that regulatory authorities and state courts interpreting these statutes may regard federal law under the Anti-Kickback Statute and the Stark Law as persuasive.

We believe that our operations comply with the Anti-Kickback Statute, the Stark Law, and similar federal or state laws addressing fraud and abuse. These laws are subject to modification and changes in interpretation, and are enforced by authorities vested with broad discretion. We continually monitor developments in this area. If these laws are interpreted in a manner contrary to our interpretation or are reinterpreted or amended, or if new legislation is enacted with respect to healthcare fraud and abuse, illegal remuneration, or similar issues, we may be required to restructure our affected operations to maintain compliance with applicable law. There can be no assurances that any such restructuring will be possible or, if possible, would not have a material adverse effect on our results of operations, financial position, or cash flows.

Environmental

We are subject to various federal, state, and local laws and regulations relating to the protection of human health and the environment. If an environmental regulatory agency finds any of our facilities to be in violation of environmental laws, penalties and fines may be imposed for each day of violation and the affected facility could be forced to cease operations. We could also incur other significant costs, such as cleanup costs or claims by third parties, as a result of violations of, or liabilities under, environmental laws. Although we believe that our environmental practices, including waste handling and disposal practices, are in material compliance with applicable laws, future claims or violations, or changes in environmental laws, could have a material adverse effect on our results of operations, financial position or cash flows.

State Regulation of Insurance-Related Products

Laws in each of the states (and Puerto Rico) in which we operate our HMOs, PPOs and other health insurance-related services regulate our operations including: capital adequacy and other licensing requirements, policy language describing benefits, mandated benefits and processes, entry, withdrawal or re-entry into a state or market, rate increases, delivery systems, utilization review procedures, quality assurance, complaint systems, enrollment requirements, claim payments, marketing, and advertising. The HMO, PPO, and other health insurance-related products we offer are sold under licenses issued by the applicable insurance regulators.

Our licensed insurance subsidiaries are also subject to regulation under state insurance holding company and Puerto Rico regulations. These regulations generally require, among other things, prior approval and/or notice of new products, rates, benefit changes, and certain material transactions, including dividend payments, purchases or sales of assets, intercompany agreements, and the filing of various financial and operational reports.

Any failure by us to manage acquisitions, divestitures and other significant transactions successfully may have a material adverse effect on our results of operations, financial position, and cash flows.

As part of our business strategy, we frequently engage in discussions with third parties regarding possible investments, acquisitions, divestitures, strategic alliances, joint ventures, and outsourcing transactions and often enter into agreements relating to such transactions in order to further our business objectives. In order to pursue our acquisition strategy successfully, we must identify suitable candidates for and successfully complete transactions, some of which may be large and complex, and manage post-closing issues such as the integration of acquired companies or employees. Integration and other risks can be more pronounced for larger and more complicated transactions, transactions outside of our core business space, or if multiple transactions are pursued simultaneously. The failure to successfully integrate acquired entities and businesses or failure to produce results consistent with the financial model used in the analysis of our acquisitions, investments, joint ventures or strategic alliances may cause asset write-offs, restructuring costs or other expenses and may have a material adverse effect on our results of operations, financial position, and cash flows. If we fail to identify and complete successfully transactions that further our strategic objectives, we may be required to expend resources to develop products and technology internally. In addition, from time to time, we evaluate alternatives for our businesses that do not meet our strategic, growth or profitability objectives, and we may divest or wind down such businesses. There can be no assurance that we will be able to complete any such divestiture on terms favorable to us. The divestiture of certain businesses could result, individually or in the aggregate, in the recognition of material losses and a material adverse effect on our results of operations. In addition, divestitures may result in continued financial exposure to the divested businesses following the completion of the transaction. For example, in connection with a disposition, we may enter into transition or administrative service agreements, coinsurance arrangements, vendor relationships or other strategic relationships with the divested business, or we may agree to provide certain indemnities to the purchaser in any such transaction, each of which may result in additional expense and could have a material adverse effect on our result of operations.

If we fail to develop and maintain satisfactory relationships with the providers of care to our members, our business may be adversely affected.

We employ or contract with physicians, hospitals and other providers to deliver health care to our members. Our products encourage or require our customers to use these contracted providers. A key component of our integrated care delivery strategy is to increase the number of providers who share medical cost risk with us or have financial incentives to deliver quality medical services in a cost-effective manner.

In any particular market, providers could refuse to contract with us, demand higher payments, or take other actions that could result in higher health care costs for us, less desirable products for customers and members or difficulty meeting regulatory or accreditation requirements. In some markets, some providers, particularly hospitals, physician specialty groups, physician/hospital organizations, or multi-specialty physician groups, may have significant market positions and negotiating power. In addition, physician or practice management companies, which aggregate physician practices for administrative efficiency and marketing leverage, may compete directly with us. If these providers refuse to contract with us, use their market position to negotiate unfavorable contracts with us or place us at a competitive

disadvantage, or do not enter into contracts with us that encourage the delivery of quality medical services in a cost-effective manner, our ability to market products or to be profitable in those areas may be adversely affected.

In some situations, we have contracts with individual or groups of primary care providers for an actuarially determined, fixed fee per month to provide a basket of required medical services to our members. This type of contract is referred to as a "capitation" contract. The inability of providers to properly manage costs under these capitation arrangements can result in the financial instability of these providers and the termination of their relationship with us. In addition, payment or other disputes between a primary care provider and specialists with whom the primary care provider contracts can result in a disruption in the provision of services to our members or a reduction in the services available to our members. The financial instability or failure of a primary care provider to pay other providers for services rendered could lead those other providers to demand payment from us even though we have made our regular fixed payments to the primary provider. There can be no assurance that providers with whom we contract will properly manage the costs of services, maintain financial solvency or avoid disputes with other providers. Any of these events may have a material adverse effect on the provision of services to our members and our results of operations, financial position, and cash flows.

Our pharmacy business is highly competitive and subjects us to regulations in addition to those we face with our core health benefits businesses.

Our pharmacy mail order business competes with locally owned drugstores, retail drugstore chains, supermarkets, discount retailers, membership clubs, internet companies and other mail-order and long-term care pharmacies. Our pharmacy business also subjects us to extensive federal, state, and local regulation. The practice of pharmacy is generally regulated at the state level by state boards of pharmacy. Many of the states where we deliver pharmaceuticals, including controlled substances, have laws and regulations that require out-of-state mail-order pharmacies to register with that state's board of pharmacy. Federal agencies further regulate our pharmacy operations, requiring registration with the U.S. Drug Enforcement Administration and individual state controlled substance authorities in order to dispense controlled substances. In addition, the FDA inspects facilities in connection with procedures to effect recalls of prescription drugs. The Federal Trade Commission also has requirements for mail-order sellers of goods. The U.S. Postal Service, or USPS, has statutory authority to restrict the transmission of drugs and medicines through the mail to a degree that may have an adverse effect on our mail-order operations. The USPS historically has exercised this statutory authority only with respect to controlled substances. If the USPS restricts our ability to deliver drugs through the mail, alternative means of delivery are available to us. However, alternative means of delivery could be significantly more expensive. The U.S. Department of Transportation has regulatory authority to impose restrictions on drugs inserted in the stream of commerce. These regulations generally do not apply to the USPS and its operations. In addition, we are subject to CMS rules regarding the administration of our PDP plans and intercompany pricing between our PDP plans and our pharmacy business.

We are also subject to risks inherent in the packaging and distribution of pharmaceuticals and other health care products, and the application of state laws related to the operation of internet and mail-order pharmacies. The failure to adhere to these laws and regulations may expose us to civil and criminal penalties.

Changes in the prescription drug industry pricing benchmarks may adversely affect our financial performance.

Contracts in the prescription drug industry generally use certain published benchmarks to establish pricing for prescription drugs. These benchmarks include average wholesale price, which is referred to as "AWP," average selling price, which is referred to as "ASP," and wholesale acquisition cost. It is uncertain whether payors, pharmacy providers, pharmacy benefit managers, or PBMs, and others in the prescription drug industry will continue to utilize AWP as it has previously been calculated, or whether other pricing benchmarks will be adopted for establishing prices within the industry. Legislation may lead to changes in the pricing for Medicare and Medicaid programs. Regulators have conducted investigations into the use of AWP for federal program payment, and whether the use of AWP has inflated drug expenditures by the Medicare and Medicaid programs. Federal and state proposals have sought to change the basis for calculating payment of certain drugs by the Medicare and Medicaid programs. Adoption of ASP in lieu of AWP as the measure for determining payment by Medicare or Medicaid programs for the drugs sold in our mail-order pharmacy

business may reduce the revenues and gross margins of this business which may result in a material adverse effect on our results of operations, financial position, and cash flows.

If we do not continue to earn and retain purchase discounts and volume rebates from pharmaceutical manufacturers at current levels, our gross margins may decline.

We have contractual relationships with pharmaceutical manufacturers or wholesalers that provide us with purchase discounts and volume rebates on certain prescription drugs dispensed through our mail-order and specialty pharmacies. These discounts and volume rebates are generally passed on to clients in the form of steeper price discounts. Changes in existing federal or state laws or regulations or in their interpretation by courts and agencies or the adoption of new laws or regulations relating to patent term extensions, and purchase discount and volume rebate arrangements with pharmaceutical manufacturers, may reduce the discounts or volume rebates we receive and materially adversely impact our results of operations, financial position, and cash flows.

Our ability to obtain funds from certain of our licensed subsidiaries is restricted by state insurance regulations.

Because we operate as a holding company, we are dependent upon dividends and administrative expense reimbursements from our subsidiaries to fund the obligations of Humana Inc., our parent company. Certain of our insurance subsidiaries operate in states that regulate the payment of dividends, loans, administrative expense reimbursements or other cash transfers to Humana Inc., and require minimum levels of equity as well as limit investments to approved securities. The amount of dividends that may be paid to Humana Inc. by these insurance subsidiaries, without prior approval by state regulatory authorities, or ordinary dividends, is limited based on the entity's level of statutory income and statutory capital and surplus. In most states, prior notification is provided before paying a dividend even if approval is not required. Actual dividends paid may vary due to consideration of excess statutory capital and surplus and expected future surplus requirements related to, for example, premium volume and product mix. Dividends from our non-insurance companies such as in our Healthcare Services segment are generally not restricted by Departments of Insurance. In the event that we are unable to provide sufficient capital to fund the obligations of Humana Inc., our results of operations, financial position, and cash flows may be materially adversely affected.

Downgrades in our debt ratings, should they occur, may adversely affect our business, results of operations, and financial condition.

Claims paying ability, financial strength, and debt ratings by recognized rating organizations are an increasingly important factor in establishing the competitive position of insurance companies. Ratings information is broadly disseminated and generally used throughout the industry. We believe our claims paying ability and financial strength ratings are an important factor in marketing our products to certain of our customers. In addition, our debt ratings impact both the cost and availability of future borrowings. Each of the rating agencies reviews its ratings periodically and there can be no assurance that current ratings will be maintained in the future. Our ratings reflect each rating agency’s opinion of our financial strength, operating performance, and ability to meet our debt obligations or obligations to policyholders, but are not evaluations directed toward the protection of investors in our common stock and should not be relied upon as such.

Historically, rating agencies take action to lower ratings due to, among other things, perceived concerns about liquidity or solvency, the competitive environment in the insurance industry, the inherent uncertainty in determining reserves for future claims, the outcome of pending litigation and regulatory investigations, and possible changes in the methodology or criteria applied by the rating agencies. In addition, rating agencies have come under regulatory and public scrutiny over the ratings assigned to various fixed-income products. As a result, rating agencies may (i) become more conservative in their methodology and criteria, (ii) increase the frequency or scope of their credit reviews, (iii) request additional information from the companies that they rate, or (iv) adjust upward the capital and other requirements employed in the rating agency models for maintenance of certain ratings levels.

We believe that some of our customers place importance on our credit ratings, and we may lose customers and compete less successfully if our ratings were to be downgraded. In addition, our credit ratings affect our ability to obtain investment capital on favorable terms. If our credit ratings were to be lowered, our cost of borrowing likely would

increase, our sales and earnings could decrease, and our results of operations, financial position, and cash flows may be materially adversely affected.

The securities and credit markets may experience volatility and disruption, which may adversely affect our business. Volatility or disruption in the securities and credit markets could impact our investment portfolio. We evaluate our investment securities for impairment on a quarterly basis. This review is subjective and requires a high degree of judgment. For the purpose of determining gross realized gains and losses, the cost of investment securities sold is based upon specific identification. For debt securities held, we recognize an impairment loss in income when the fair value of the debt security is less than the carrying value and we have the intent to sell the debt security or it is more likely than not that we will be required to sell the debt security before recovery of our amortized cost basis, or if a credit loss has occurred. When we do not intend to sell a security in an unrealized loss position, potential other-than-temporary impairments are considered using variety of factors, including the length of time and extent to which the fair value has been less than cost; adverse conditions specifically related to the industry, geographic area or financial condition of the issuer or underlying collateral of a security; payment structure of the security; changes in credit rating of the security by the rating agencies; the volatility of the fair value changes; and changes in fair value of the security after the balance sheet date. For debt securities, we take into account expectations of relevant market and economic data. We continuously review our investment portfolios and there is a continuing risk that declines in fair value may occur and additional material realized losses from sales or other-than-temporary impairments may be recorded in future periods.

We believe our cash balances, investment securities, operating cash flows, and funds available under our credit agreement or from other public or private financing sources, taken together, provide adequate resources to fund ongoing operating and regulatory requirements, acquisitions, future expansion opportunities, and capital expenditures for at least the next twelve months, as well as to refinance or repay debt, and repurchase shares. However, continuing adverse securities and credit market conditions may significantly affect the availability of credit. While there is no assurance in the current economic environment, we have no reason to believe the lenders participating in our credit agreement will not be willing and able to provide financing in accordance with the terms of the agreement.

Our access to additional credit will depend on a variety of factors such as market conditions, the general availability of credit, both to the overall market and our industry, our credit ratings and debt capacity, as well as the possibility that customers or lenders could develop a negative perception of our long or short-term financial prospects. Similarly, our access to funds could be limited if regulatory authorities or rating agencies were to take negative actions against us. If a combination of these factors were to occur, we may not be able to successfully obtain additional financing on favorable terms or at all.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The following table lists, by state, the number of medical centers and administrative offices we owned or leased at December 31, 2018:

	Medical Centers		Administrative Offices		
	Owned	Leased	Owned	Leased	Total
Florida	13	207	—	69	289
Texas	1	17	2	14	34
Kentucky	2	3	15	12	32
Arizona	—	17	—	6	23
Louisiana	—	6	—	10	16
Virginia	—	8	—	7	15
Illinois	—	5	—	10	15
California	—	2	—	12	14
Ohio	—	1	—	13	14
South Carolina	—	6	—	6	12
New York	—	—	—	13	13
Nevada	—	7	—	5	12
Puerto Rico	—	1	—	10	11
Indiana	—	5	—	5	10
Georgia	—	8	—	3	11
Washington	—	7	—	4	11
Tennessee	—	—	—	9	9
New Jersey	—	—	—	9	9
Colorado	—	5	—	3	8
Michigan	—	5	—	3	8
North Carolina	—	2	—	4	6
Others	—	9	1	38	48
Total	16	321	18	265	620

The medical centers we operate are primarily located in Florida and Texas, including full-service, multi-specialty medical centers staffed by primary care providers and medical specialists. Of the medical centers included in the table above, approximately 44 of these facilities are leased or subleased to our contracted providers to operate.

Our principal executive office is located in the Humana Building, 500 West Main Street, Louisville, Kentucky 40202. In addition to the headquarters in Louisville, Kentucky, we maintain other principal operating facilities used for customer service, enrollment, and/or claims processing and certain other corporate functions in Louisville, Kentucky; Green Bay, Wisconsin; Tampa, Florida; Cincinnati, Ohio; San Antonio, Texas; and San Juan, Puerto Rico.

ITEM 3. LEGAL PROCEEDINGS

We are party to a variety of legal actions in the ordinary course of business, certain of which may be styled as class-action lawsuits. Among other matters, this litigation may include employment matters, claims of medical malpractice, bad faith, nonacceptance or termination of providers, anticompetitive practices, improper rate setting, provider contract rate disputes, qui tam litigation brought by individuals seeking to sue on behalf of the government, failure to disclose network discounts and various other provider arrangements, general contractual matters, intellectual property matters, and challenges to subrogation practices. For a discussion of our material legal actions, including those not in the ordinary course of business, see “Legal Proceedings and Certain Regulatory Matters” in Note 16 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data. We cannot predict the outcome of these suits with certainty.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock trades on the New York Stock Exchange under the symbol HUM.

Holders of our Capital Stock

As of January 31, 2019, there were approximately 2,300 holders of record of our common stock and approximately 244,700 beneficial holders of our common stock.

Dividends

The following table provides details of dividend payments, excluding dividend equivalent rights, in 2017 and 2018, under our Board approved quarterly cash dividend policy:

Record Date	Payment Date	Amount per Share	Total Amount (in millions)
2017 payments			
1/12/2017	1/27/2017	$0.29	$43
3/31/2017	4/28/2017	$0.40	$58
6/30/2017	7/31/2017	$0.40	$58
9/29/2017	10/27/2017	$0.40	$57
2018 payments			
12/29/2017	1/26/2018	$0.40	$55
3/30/2018	4/27/2018	$0.50	$69
6/29/2018	7/27/2018	$0.50	$69
9/28/2018	10/26/2018	$0.50	$69

On November 2, 2018, the Board declared a cash dividend of $0.50 per share that was paid on January 25, 2019 to stockholders of record on December 31, 2018, for an aggregate amount of $68 million. Declaration and payment of future quarterly dividends is at the discretion of our Board and may be adjusted as business needs or market conditions change.

In February 2019, the Board declared a cash dividend of $0.55 per share payable on April 26, 2019 to stockholders of record on March 29, 2019.

Stock Total Return Performance

The following graph compares our total return to stockholders with the returns of the Standard & Poor's Composite 500 Index ("S&P 500") and the Dow Jones US Select Health Care Providers Index ("Peer Group") for the five years ended December 31, 2018. The graph assumes an investment of $100 in each of our common stock, the S&P 500, and the Peer Group on December 31, 2013, and that dividends were reinvested when paid.

	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018
HUM	$ 100	$ 140	$ 176	$ 202	$ 247	$ 287
S&P 500	$ 100	$ 114	$ 115	$ 129	$ 157	$ 150
Peer Group	$ 100	$ 128	$ 135	$ 137	$ 173	$ 191

The stock price performance included in this graph is not necessarily indicative of future stock price performance.

Issuer Purchases of Equity Securities

The following table provides information about purchases by us during the three months ended December 31, 2018 of equity securities that are registered by us pursuant to Section 12 of the Exchange Act:

Period	Total Number of Shares Purchased (1)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (1)(2)	Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (1)(2)
October 2018	—	$ —	—	$ 1,776,354,011
November 2018	1,937,797	309.63	1,937,797	1,176,354,010
December 2018	—	—	—	1,176,354,010
Total	1,937,797	$ 309.63	1,937,797	

(1) On December 14, 2017, our Board of Directors authorized the repurchase of up to $3.0 billion of our common shares expiring on December 31, 2020, exclusive of shares repurchased in connection with employee stock plans. Under the share repurchase authorization, shares may be purchased from time to time at prevailing prices in the open market, by block purchases, through plans designed to comply with Rule 10b5-1 under the Securities Exchange Act of 1934, as amended, or in privately-negotiated transactions, including pursuant to accelerated share repurchase agreements with investment banks, subject to certain regulatory restrictions on volume, pricing, and timing. On November 28, 2018, we entered into an accelerated stock repurchase agreement, the November 2018 ASR, with Goldman, Sachs & Co. LLC, or Goldman Sachs, to repurchase $750 million of our common stock as part of the $3.0 billion share repurchase program authorized by the Board of Directors on December 14, 2017. On November 29, 2018, we made a payment of $750 million to Goldman Sachs from available cash on hand and received an initial delivery of 1.94 million shares of our common stock from Goldman Sachs. The payment to Goldman Sachs was recorded as a reduction to stockholders' equity, consisting of an $600 million increase in treasury stock, which reflects the value of the initial 1.94 million shares received upon initial settlement, and a $150 million decrease in capital in excess of par value, which reflected the value of stock held back by Goldman Sachs pending final settlement of the November 2018 ASR. Our remaining repurchase authorization was approximately $1,176 million as of February 21, 2019, excluding the $150 million pending final settlement of our November 2018 ASR.

(2) Excludes 0.15 million shares repurchased in connection with employee stock plans.

ITEM 6. SELECTED FINANCIAL DATA

	2018	2017	2016 (a)	2015	2014
	(dollars in millions, except per common share results)				
Summary of Operating Results:					
Revenues:					
Premiums	$54,941	$52,380	$53,021	$52,409	$45,959
Services	1,457	982	969	1,406	2,164
Investment income	514	405	389	474	377
Total revenues	56,912	53,767	54,379	54,289	48,500
Operating expenses:					
Benefits	45,882	43,496	45,007	44,269	38,166
Operating costs	7,525	6,567	7,173	7,295	7,639
Merger termination fee and related costs, net	—	(936)	104	23	—
Depreciation and amortization	405	378	354	355	333
Total operating expenses	53,812	49,505	52,638	51,942	46,138
Income from operations	3,100	4,262	1,741	2,347	2,362
Loss (gain) on sale of business	786	—	—	(270)	—
Interest expense	218	242	189	186	192
Other expense, net	33	—	—	—	—
Income before income taxes and equity in net earnings	2,063	4,020	1,552	2,431	2,170
Provision for income taxes	391	1,572	938	1,155	1,023
Equity in net earnings of Kindred at Home	11	—	—	—	—
Net income	$1,683	$2,448	$614	$1,276	$1,147
Basic earnings per common share	$12.24	$16.94	$4.11	$8.54	$7.44
Diluted earnings per common share	$12.16	$16.81	$4.07	$8.44	$7.36
Dividends declared per common share	$2.00	$1.60	$1.16	$1.15	$1.11
Financial Position:					
Cash and investments	$12,780	$16,344	$13,675	$11,681	$11,482
Total assets	25,413	27,178	25,396	24,678	23,497
Benefits payable	4,862	4,668	4,563	4,976	4,475
Debt	6,069	4,920	4,092	4,093	3,795
Stockholders' equity	10,161	9,842	10,685	10,346	9,646
Cash flows from operations	$2,173	$4,051	$1,936	$868	$1,618
Key Financial Indicators:					
Benefit ratio	83.5 %	83.0 %	84.9 %	84.5 %	83.0 %
Operating cost ratio	13.3 %	12.3 %	13.3 %	13.6 %	15.9 %
Membership by Segment:					
Retail segment:					
Medical membership	9,161,500	9,206,300	8,751,300	8,327,700	7,360,300
Group and Specialty segment:					
Medical membership	7,415,200	4,638,200	4,793,300	4,963,400	5,430,200
Specialty membership	6,072,300	6,986,000	6,961,200	7,221,800	7,668,500
Individual commercial segment:					
Medical membership	—	128,800	654,800	899,100	1,016,200
Other Businesses:					
Medical membership	—	29,800	30,800	32,600	35,000
Consolidated:					
Total medical membership	16,576,700	14,003,100	14,230,200	14,222,800	13,841,700
Total specialty membership	6,072,300	6,986,000	6,961,200	7,221,800	7,668,500

(a)

Includes a reduction in premiums revenue of $583 million ($367 million after tax, or $2.43 per diluted common share) associated with the write-off of commercial risk corridor receivables. Also includes benefits expense of $505 million ($318 million after tax, or $2.11 per diluted common share) for reserve strengthening associated with our non-strategic closed block of long-term care insurance policies, which were sold in 2018.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Executive Overview

General

Humana Inc., headquartered in Louisville, Kentucky, is a leading health and well-being company committed to helping our millions of medical and specialty members achieve their best health. Our successful history in care delivery and health plan administration is helping us create a new kind of integrated care with the power to improve health and well being and lower costs. Our efforts are leading to a better quality of life for people with Medicare, families, individuals, military service personnel, and communities at large. To accomplish that, we support physicians and other health care professionals as they work to deliver the right care in the right place for their patients, our members. Our range of clinical capabilities, resources and tools, such as in home care, behavioral health, pharmacy services, data analytics and wellness solutions, combine to produce a simplified experience that makes health care easier to navigate and more effective.

Our industry relies on two key statistics to measure performance. The benefit ratio, which is computed by taking total benefits expense as a percentage of premiums revenue, represents a statistic used to measure underwriting profitability. The operating cost ratio, which is computed by taking total operating costs, excluding Merger termination fee and related costs, net, and depreciation and amortization, as a percentage of total revenue less investment income, represents a statistic used to measure administrative spending efficiency.

Business Segments

We manage our business with four reportable segments: Retail, Group and Specialty, Healthcare Services, and Individual Commercial. In addition, the Other Businesses category includes businesses that are not individually reportable because they do not meet the quantitative thresholds required by generally accepted accounting principles. These segments are based on a combination of the type of health plan customer and adjacent businesses centered on well-being solutions for our health plans and other customers, as described below. These segment groupings are consistent with information used by our Chief Executive Officer to assess performance and allocate resources. See Note 17 to the consolidated financial statements included in Item 8. - Financial Statements and Supplementary Data for segment financial information.

The Retail segment consists of Medicare benefits, marketed to individuals or directly via group Medicare accounts. In addition, the Retail segment also includes our contract with CMS to administer the Limited Income Newly Eligible Transition, or LI-NET, prescription drug plan program and contracts with various states to provide Medicaid, dual eligible, and Long-Term Support Services benefits, which we refer to collectively as our state-based contracts. The Group and Specialty segment consists of employer group commercial fully-insured medical and specialty health insurance benefits marketed to individuals and employer groups, including dental, vision, and other supplemental health benefits, as well as administrative services only, or ASO products. In addition, our Group and Specialty segment includes military services business, primarily our TRICARE T2017 East Region contract. The Healthcare Services segment includes our services offered to our health plan members as well as to third parties, including pharmacy solutions, provider services, and clinical care service, such as home health and other services and capabilities to promote wellness and advance population health, including our investment in Kindred at Home. The Individual Commercial segment consisted of our individual commercial fully-insured medical health insurance business, which we exited beginning January 1, 2018. We report under the category of Other Businesses those businesses that do not align with the reportable segments described above, primarily our closed-block long-term care insurance policies, which were sold in 2018.

The results of each segment are measured by income before income taxes and equity in net earnings from Kindred at Home, or segment earnings. Transactions between reportable segments primarily consist of sales of services rendered by our Healthcare Services segment, primarily pharmacy, provider, and clinical care services, to our Retail and Group and Specialty segment customers. Intersegment sales and expenses are recorded at fair value and eliminated in consolidation. Members served by our segments often use the same provider networks, enabling us in some instances to obtain more favorable contract terms with providers. Our segments also share indirect costs and assets. As a result, the profitability of each segment is interdependent. We allocate most operating expenses to our segments. Assets and

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certain corporate income and expenses are not allocated to the segments, including the portion of investment income not supporting segment operations, interest expense on corporate debt, and certain other corporate expenses. These items are managed at a corporate level. These corporate amounts are reported separately from our reportable segments and are included with intersegment eliminations.

Seasonality

One of the product offerings of our Retail segment is Medicare stand-alone prescription drug plans, or PDPs, under the Medicare Part D program. Our quarterly Retail segment earnings and operating cash flows are impacted by the Medicare Part D benefit design and changes in the composition of our membership. The Medicare Part D benefit design results in coverage that varies as a member's cumulative out-of-pocket costs pass through successive stages of a member's plan period, which begins annually on January 1 for renewals. These plan designs generally result in us sharing a greater portion of the responsibility for total prescription drug costs in the early stages and less in the latter stages. As a result, the PDP benefit ratio generally decreases as the year progresses. In addition, the number of low income senior members as well as year-over-year changes in the mix of membership in our stand-alone PDP products affects the quarterly benefit ratio pattern.

In addition, the Retail segment also experiences seasonality in the operating cost ratio as a result of costs incurred in the second half of the year associated with the Medicare marketing season.

Our Group and Specialty segment also experiences seasonality in the benefit ratio pattern. However, the effect is opposite of Medicare stand-alone PDP in the Retail segment, with the Group and Specialty segment's benefit ratio increasing as fully-insured members progress through their annual deductible and maximum out-of-pocket expenses.

Aetna Merger

On February 16, 2017, under the terms of the Agreement and Plan of Merger, or Merger Agreement, with Aetna Inc., and certain wholly owned subsidiaries of Aetna Inc., which we collectively refer to as Aetna, we received a breakup fee of $1 billion from Aetna, which is included in our consolidated statement of income in the line captioned "Merger termination fee and related costs, net."

Acquisitions and Divestitures

On August 9, 2018, we completed the sale of our wholly-owned subsidiary, KMG America Corporation, or KMG, to Continental General Insurance Company, or CGIC, a Texas-based insurance company wholly owned by HC2 Holdings, Inc., a diversified holding company. KMG's subsidiary, Kanawha Insurance Company, or KIC, includes our closed block of non-strategic commercial long-term care policies. Upon closing, we funded the transaction with approximately $190 million of parent company cash contributed into KMG, subject to customary adjustments, in addition to the transfer of approximately $160 million of statutory capital with the sale. In connection with the sale of KMG, we recognized a pretax loss, including transaction costs, of $786 million and a corresponding $452 million tax benefit. Prior to the sale of KMG, we entered into reinsurance contracts to transfer the risk associated with certain voluntary benefit and financial protection products previously issued primarily by KIC to a third party. We transferred approximately $245 million of cash to the third party and recorded a commensurate reinsurance recoverable as a result of these transactions. The reinsurance recoverable was included as part of the net assets disposed. There was no material impact to operating results from these reinsurance transactions.

On July 2, 2018 and July 11, 2018, we along with TPG Capital, or TPG, and Welsh, Carson, Anderson & Stowe, or WCAS, collectively, the Sponsors, completed the acquisitions of Kindred and Curo, respectively, merging Curo with the hospice business of Kindred at Home. As part of these transactions, we acquired a 40% minority interest in the combined business, Kindred at Home, a for total cash consideration of approximately $1.1 billion.

On April 10, 2018, we acquired Family Physicians Group, or FPG, for cash consideration of approximately $185 million, net of cash received. FPG is one of the largest at-risk providers serving Medicare Advantage and Managed

Medicaid HMO patients in Greater Orlando, Florida with a footprint that includes clinics located in Lake, Orange, Osceola and Seminole counties.

On March 1, 2018, we acquired the remaining equity interest in MCCI Holdings LLC, or MCCI, a privately held management service organization headquartered in Miami, Florida, that primarily coordinates medical care for Medicare Advantage beneficiaries in Florida and Texas. The purchase price consisted primarily of $169 million cash, as well as our existing investment in MCCI and a note receivable and a revolving note with an aggregate balance of $383 million.

These transactions are more fully discussed in Note 3 to the consolidated financial statements.

Highlights

Consolidated

Our 2018 results reflect the continued implementation of our strategy to offer our members affordable health care combined with a positive consumer experience in growing markets. At the core of this strategy is our integrated care delivery model, which unites quality care, high member engagement, and sophisticated data analytics. Our approach to primary, physician-directed care for our members aims to provide quality care that is consistent, integrated, cost-effective, and member-focused, provided by both employed physicians and physicians with network contract arrangements. The model is designed to improve health outcomes and affordability for individuals and for the health system as a whole, while offering our members a simple, seamless healthcare experience. We believe this strategy is positioning us for long-term growth in both membership and earnings. We offer providers a continuum of opportunities to increase the integration of care and offer assistance to providers in transitioning from a fee-for-service to a value-based arrangement. These include performance bonuses, shared savings and shared risk relationships. At December 31, 2018, approximately 2,039,100 members, or 67%, of our individual Medicare Advantage members were in value-based relationships under our integrated care delivery model, as compared to 1,901,300 members, or 66%, at December 31, 2017.

- Our consolidated pretax income was $2.06 billion for 2018 compared to $4.02 billion in 2017. A number of significant items effected our year-over-year comparisons including the following:
  - The net gain associated with the terminated Merger Agreement, mainly the break-up fee of $936 million in 2017.
  - The loss on sale of KMG of $786 million in 2018.
  - Charges in 2017 of $219 million associated with voluntary and involuntary workforce reduction programs, the Penn Treaty guaranty fund assessment and costs associated with the early retirement of debt.
- Lower year-over-year segment earnings in our Retail, Group and Specialty and Healthcare Services segments reflects the impact of investing the benefit of a lower tax rate from the 2017 Tax Reform Law into the establishment of an annual incentive compensation program for a broader range of employees, together with additional investments in the communities of our members, technology and our integrated care delivery model to drive more affordable healthcare and better clinical outcomes.
- Our year-over-year pretax comparisons were also favorably impacted by strong Medicare Advantage membership growth and operating efficiencies from productivity initiatives implemented in 2017. These increases were partially offset by enhanced 2018 Medicare Advantage benefits resulting from investing the better than expected 2017 individual Medicare Advantage pretax earnings, coupled with the return of the health insurance industry fee, and a more severe flu season in 2018.
- Year-over-year comparisons of diluted earnings per common share were also favorably impacted by a lower number of shares used to compute earnings per common share from share repurchases and the impact of a lower tax rate for the year ended December 31, 2018.The 2017 Tax Reform Law coupled with the tax benefit

from the sale of KMG, partially offset by return of the nondeductible health insurance industry fee, drove the lower tax rate in 2018.

- We returned capital to our shareholders in the form of increased shareholder dividends and significant share repurchase. In 2018, we increased our per share dividend by 25% and repurchased shares worth approximately $1.1 billion, including the accelerated share repurchase agreement, or ASR, that we entered into in November 2018.
- The annual health insurance industry fee was suspended for calendar year 2017, but resumed in 2018. Operating costs associated with the health insurance industry fee attributable to 2018 were $1.04 billion paid in October 2018. This fee is not deductible for tax purposes, which increases our effective income tax rate. The one-year suspension in 2017 of the health insurance industry fee significantly reduced our operating costs and effective tax rate during 2017. The annual health insurance industry fee is also suspended for calendar year 2019, but under current law is scheduled to resume for calendar year 2020.

Retail Segment

- Individual and Group Medicare Advantage membership increased 259,600 members, or 7.9%, in 2018 to 3,561,800 members December 31, 2018.

On January 30, 2019, after the stock market closed, the Centers for Medicare and Medicaid Services (CMS) issued its preliminary 2020 Medicare Advantage and Part D payment rates and proposed policy changes (collectively, the Advance Notice). CMS has invited public comment on the Advance Notice before publishing final rates on April 1, 2019 (the Final Notice). In the Advance Notice, CMS estimates Medicare Advantage plans across the sector will, on average, experience a 1.59 percent increase in benchmark funding based on proposals included therein. As indicated by CMS, its estimate excludes the impact of fee for service county rebasing/re pricing since the related impact is dependent upon finalization of certain data, which will be available with the publication of the Final Notice. Based on our preliminary analysis using the same factors CMS included in its estimate, the components of which are detailed on CMS' website, we anticipate the proposals in the Advance Notice would result in a change to our benchmark funding relatively in line with CMS' estimate. We will be drawing upon our program expertise to provide CMS formal commentary on the impact of the Advance Notice and the related impact upon Medicare beneficiaries' quality of care and service to our members through the Medicare Advantage program.

- On April 24, 2018, we received a Notice of Intent to be Awarded a Comprehensive Medicaid Contract under Florida's Statewide Managed Medicaid Program in all 11 regions, including the South Florida, Tampa, Jacksonville, and Orlando metro areas. The comprehensive program combines the traditional Medicaid, or TANF, and Long-Term Care programs. Phase-in under the new contract began December 2018 and was fully implemented February 1, 2019.

In October 2018, CMS published its updated Star quality ratings for bonus year 2020. We received a 5-star rating on CMS' 5-star rating system for two MA contracts offered in Florida and Tennessee. In addition, we received a 4.5-star rating for two MA contracts offered in Florida, Illinois, Kentucky, Mississippi, North Carolina, and Oregon. We have 12 contracts rated 4-star or above and 3 million members in 4-star or above rated contracts to be offered in 2019, representing 84% of our MA membership as of July 2018. The achievement of a 5-star rating for two MA contracts in Florida and Tennessee provides us the ability to market for these contracts throughout the year, creating an opportunity for increased penetration in these important geographies. We cannot guarantee, however, our ability to maintain or improve our star ratings.

Group and Specialty Segment

- During 2018, we transitioned to the new, larger T2017 East Region contract increasing membership 2,846,800 or 92.4%.The T2017 East Region contract is a consolidation of the former T3 North and South Regions, comprising thirty-two states and approximately 6 million TRICARE beneficiaries, under which delivery of health care services commenced on January 1, 2018. The T2017 East Region contract is a 5-year contract set

to expire on December 31, 2022 and is subject to renewals on January 1 of each year during its term at the government's option.

Healthcare Services Segment

- We continued to invest in our Healthcare Services segment necessary to drive effective care delivery and clinical outcomes with our acquisitions of MCCI and FPG and our 40% investment in Kindred at Home.
- Medicare Advantage and dual demonstration program membership enrolled in a Humana chronic care management program was 716,000 at December 31, 2018, a decrease of 9.9% from 794,900 at December 31, 2017. These members may not be unique to each program since members have the ability to enroll in multiple programs. We have undergone an optimization process that ensures the appropriate level of member interaction with clinicians to drive quality outcomes, which has resulted in improved Retail segment operating results.

Health Care Reform

The Health Care Reform Law enacted significant reforms to various aspects of the U.S. health insurance industry. Certain significant provisions of the Health Care Reform Law include, among others, mandated coverage requirements, mandated benefits and guarantee issuance associated with commercial medical insurance, rebates to policyholders based on minimum benefit ratios, adjustments to Medicare Advantage premiums, the establishment of federally facilitated or state-based exchanges coupled with programs designed to spread risk among insurers, and the introduction of plan designs based on set actuarial values. In addition, the Health Care Reform Law established insurance industry assessments, including an annual health insurance industry fee. The annual health insurance industry fee levied on the insurance industry is $14.3 billion in 2018 and is not deductible for income tax purposes, which significantly increases our effective income tax rate. A one year suspension of the health insurance industry fee, as we experienced in 2017 and are experiencing in 2019, significantly impacts our trend in key operating metrics including our operating cost and medical expense ratios, as well as our effective tax rate. The annual health insurance industry fee is scheduled to resume for calendar year 2020 under current law.

As noted above, the Health Care Reform Law required the establishment of health insurance exchanges for individuals and small employers to purchase health insurance that became effective January 1, 2014, with an annual open enrollment period. Although we previously participated in these exchanges by offering on-exchange individual commercial medical plans, effective January 1, 2018, we have exited our Individual Commercial medical business.

On November 2, 2017, we filed suit against the United States of America in the United States Court of Federal Claims, on behalf of our health plans seeking recovery from the federal government of approximately $611 million in payments under the risk corridor premium stabilization program established under the Health Care Reform Law, for years 2014, 2015 and 2016. Our case has been stayed by the Court, pending resolution of similar cases filed by other insurers.

It is reasonably possible that the Health Care Reform Law and related regulations, as well as future legislative, judicial or regulatory changes, including restrictions on our ability to manage our provider network or otherwise operate our business, or restrictions on profitability, including reviews by regulatory bodies that may compare our Medicare Advantage profitability to our non-Medicare Advantage business profitability, or compare the profitability of various products within our Medicare Advantage business, and require that they remain within certain ranges of each other, in the aggregate may have a material adverse effect on our results of operations (including restricting revenue, enrollment and premium growth in certain products and market segments, restricting our ability to expand into new markets, increasing our medical and operating costs, further lowering our Medicare payment rates and increasing our expenses associated with the non-deductible health insurance industry fee and other assessments); our financial position (including our ability to maintain the value of our goodwill); and our cash flows.

We intend for the discussion of our financial condition and results of operations that follows to assist in the understanding of our financial statements and related changes in certain key items in those financial statements from year to year, including the primary factors that accounted for those changes. Transactions between reportable segments primarily consist of sales of services rendered by our Healthcare Services segment, primarily pharmacy, provider, and

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clinical care services, to our Retail and Group and Specialty segment customers and are described in Note 17 to the consolidated financial statements included in Item 8. Financial Statements and Supplementary Data in this 2018 Form 10-K.

Comparison of Results of Operations for 2018 and 2017

Certain financial data on a consolidated basis and for our segments was as follows for the years ended December 31, 2018 and 2017:

Consolidated

	2018	2017	Change Dollars	Percentage
	(dollars in millions, except per common share results)			
Revenues:				
Premiums:				
Retail	$48,108	$44,626	$3,482	7.8 %
Group and Specialty	6,803	6,772	31	0.5 %
Individual Commercial	8	947	(939)	(99.2)%
Other Businesses	22	35	(13)	(37.1)%
Total premiums	54,941	52,380	2,561	4.9 %
Services:				
Retail	11	10	1	10.0 %
Group and Specialty	835	626	209	33.4 %
Healthcare Services	607	338	269	79.6 %
Other Businesses	4	8	(4)	(50.0)%
Total services	1,457	982	475	48.4 %
Investment income	514	405	109	26.9 %
Total revenues	56,912	53,767	3,145	5.8 %
Operating expenses:				
Benefits	45,882	43,496	2,386	5.5 %
Operating costs	7,525	6,567	958	14.6 %
Merger termination fee and related costs, net	—	(936)	936	(100.0)%
Depreciation and amortization	405	378	27	7.1 %
Total operating expenses	53,812	49,505	4,307	8.7 %
Income from operations	3,100	4,262	(1,162)	(27.3)%
Loss on sale of business	786	—	786	100.0 %
Interest expense	218	242	(24)	(9.9)%
Other expense, net	33	—	33	100.0 %
Income before income taxes and equity in net earnings	2,063	4,020	(1,957)	(48.7)%
Provision for income taxes	391	1,572	(1,181)	(75.1)%
Equity in net earnings of Kindred at Home	11	—	11	100.0 %
Net income	$1,683	$2,448	$(765)	(31.3)%
Diluted earnings per common share	$12.16	$16.81	$(4.65)	(27.7)%
Benefit ratio (a)	83.5 %	83.0 %		0.5 %
Operating cost ratio (b)	13.3 %	12.3 %		1.0 %
Effective tax rate	18.9 %	39.1 %		(20.2)%

(a) Represents total benefits expense as a percentage of premiums revenue.

(b) Represents total operating costs, excluding depreciation and amortization, as a percentage of total revenues less investment income.

Summary

Net income for 2018 was $1.7 billion, or $12.16 per diluted common share compared to $2.4 billion, or $16.81 per diluted common share, in 2017. This comparison was impacted by the loss on sale of KMG in 2018, the Merger Agreement break-up fee in 2017, the suspension of the health insurance industry fee for calendar year 2017, the exit out of the Individual Commercial business effective January 1, 2018, a lower tax rate due to the Tax Reform Law, charges associated with both voluntary and involuntary workforce reduction programs in 2017, and the estimated guaranty fund assessment expense to support the policyholders obligation of Penn Treaty in 2017. After consideration of these items, our earnings were favorably impacted by strong Medicare Advantage membership growth and significant operating efficiencies in 2018 driven by productivity initiatives implemented in 2017. These increases were partially offset by our offering of enhanced 2018 Medicare Advantage member benefits which resulted from the investment of the better than expected 2017 individual Medicare Advantage pretax earnings, coupled with the return of the health insurance industry fee and the more severe flu season during the first quarter of 2018.The comparison of diluted earnings per common share are also impacted by a lower number of shares from share repurchases.

Premiums Revenue

Consolidated premiums increased $2.6 billion, or 4.9%, from $52.4 billion for 2017 to $54.9 billion for 2018 primarily driven by higher Medicare Advantage revenues, partially offset by the impact of lower revenues from the exit of the Individual Commercial business.

Services Revenue

Consolidated services revenue increased $475 million, or 48.4%, from $982 million for 2017 to $1.5 billion for 2018, primarily due to an increase in services revenue in the Healthcare Services and Group and Specialty segments, as discussed in the detailed segment results discussion that follows.

Investment Income

Investment income was $514 million for 2018, increasing $109 million, or 26.9%, from 2017, primarily due to higher realized capital gains and higher interest rates in 2018, partially offset by lower average invested balances.

Benefits Expense

Consolidated benefits expense was $45.9 billion for 2018, an increase of $2.4 billion, or 5.5%, from 2017 reflecting an increase in the Retail and Group and Specialty segments benefits expense as discussed in the detailed segment results discussion that follows. These increases were partially offset by a decrease in the Individual Commercial segment benefits expense. As more fully described herein under the section entitled “Benefits Expense Recognition”, actuarial standards require the use of assumptions based on moderately adverse experience, which generally results in favorable reserve development, or reserves that are considered redundant. We experienced favorable medical claims reserve development related to prior fiscal years of $503 million in 2018 and $483 million in 2017.

The consolidated benefit ratio for 2018 was 83.5%, an increase of 50 basis points from 2017 primarily due to the enhanced 2018 Medicare Advantage member benefits resulting from the investment of the better than expected 2017 individual Medicare Advantage pretax earnings and a more severe flu season in the first quarter of 2018. These items were partially offset by the positive impact from the reinstatement of the health insurance industry fee in 2018, which was contemplated in the pricing and benefit design of our products and higher favorable prior-period reserve development. Favorable prior-period medical claims reserve development decreased the consolidated benefit ratio by approximately 90 basis points in both 2018 and 2017.

Operating Costs

Our segments incur both direct and shared indirect operating costs. We allocate the indirect costs shared by the segments primarily as a function of revenues. As a result, the profitability of each segment is interdependent. Consolidated operating costs increased $958 million, or 14.6%, from 2017 to $7.5 billion in 2018 reflecting an increase in the Retail and Group and Specialty segments discussed in the detailed segment results discussion that follows. These increases were partially offset by a decrease in the Individual Commercial segment operating costs. The consolidated operating cost ratio for 2018 was 13.3%, increasing 100 basis points from 12.3% in 2017 primarily due to the reinstatement of the health insurance industry fee in 2018, and long term sustainability investments made in 2018 as a result of the Tax Reform Law. Our long-term sustainability investments include the continuation of investments in our associate workforce, primarily the establishment of an annual incentive program for a broader range of employees, together with additional investments in the communities of our members, technology and our integrated care delivery model to drive more affordable healthcare and better clinical outcomes, and an increase in incentive compensation costs under the expanded program noted above. The ratio was further impacted by the growth in our military services business, which carries a higher operating ratio than our other products, due to the previously disclosed transition to the T2017 East Region contract effective January 1, 2018. These items were partially offset by the favorable impact of significant operating cost efficiencies in 2018 driven by productivity initiatives implemented in 2017, the impact of the charges recorded in 2017 associated with the voluntary and involuntary workforce reduction program, and the favorable year-over-year comparison of the impact of the guaranty fund assessment expense to support policyholder obligations of Penn Treaty in 2017, as well as the exit of the Individual Commercial business effective January 1, 2018, which carried a higher operating cost ratio than our other products. The nondeductible health insurance industry fee impacted the operating cost ratio by approximately 180 basis points in 2018.

Depreciation and Amortization

Depreciation and amortization in 2018 totaled $405 million compared to $378 million in 2017, an increase of 7.1%, primarily due to capital expenditures, the acquisitions of MCCI and FPG, and the write-off of a trade name value reflecting the re-branding of certain provider assets.

Interest Expense

Interest expense was $218 million for 2018 compared to $242 million for 2017, a decrease of $24 million, or 9.9%, primarily as a result of the early redemption of higher rate debt in December 2017.

Income Taxes

Our effective tax rate during 2018 was 18.9% compared to the effective tax rate of 39.1% in 2017. This decrease is primarily due to the Tax Reform Law and the tax benefit resulting from the sale of KMG, partially offset by the impact of the reinstatement of the non-deductible health insurance industry fee in 2018. See Note 11 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data for a complete reconciliation of the federal statutory rate to the effective tax rate.

Retail Segment

	2018	2017	Change Members	Percentage
Membership:				
Medical membership:				
Individual Medicare Advantage	3,064,000	2,860,800	203,200	7.1 %
Group Medicare Advantage	497,800	441,400	56,400	12.8 %
Medicare stand-alone PDP	5,004,300	5,308,100	(303,800)	(5.7)%
Total Retail Medicare	8,566,100	8,610,300	(44,200)	(0.5)%
State-based Medicaid	341,100	360,100	(19,000)	(5.3)%
Medicare Supplement	254,300	235,900	18,400	7.8 %
Total Retail medical members	9,161,500	9,206,300	(44,800)	(0.5)%

	2018	2017	Change Dollars	Percentage
	(in millions)			
Premiums and Services Revenue:				
Premiums:				
Individual Medicare Advantage	$35,656	$32,720	$2,936	9.0 %
Group Medicare Advantage	6,103	5,155	948	18.4 %
Medicare stand-alone PDP	3,584	3,702	(118)	(3.2)%
Total Retail Medicare	45,343	41,577	3,766	9.1 %
State-based Medicaid	2,255	2,571	(316)	(12.3)%
Medicare Supplement	510	478	32	6.7 %
Total premiums	48,108	44,626	3,482	7.8 %
Services	11	10	1	10.0 %
Total premiums and services revenue	$48,119	$44,636	$3,483	7.8 %
Segment earnings	$1,733	$1,978	$(245)	(12.4)%
Benefit ratio	85.1 %	85.6 %		(0.5)%
Operating cost ratio	11.1 %	9.6 %		1.5 %

Segment Earnings

- Retail segment earnings were $1.7 billion in 2018, a decrease of $245 million, or 12.4%, compared to 2017 reflecting a higher operating cost ratio in 2018, partially offset by a lower benefit ratio.

Enrollment

- Individual Medicare Advantage membership increased 203,200 members, or 7.1%, from December 31, 2017 to December 31, 2018 reflecting net membership additions associated with last year's Annual Election Period, or AEP, for Medicare beneficiaries. For full year 2019, we anticipate net membership growth in our individual Medicare Advantage offerings of 375,000 to 400,000.
- Group Medicare Advantage membership increased 56,400 members, or 12.8%, from December 31, 2017 to December 31, 2018 reflecting increased sales to our existing group accounts during last year's AEP for Medicare beneficiaries. For full year 2019, we anticipate net membership growth in our group Medicare Advantage offerings of approximately 30,000.

- Medicare stand-alone PDP membership decreased 303,800 members, or 5.7%, from December 31, 2017 to December 31, 2018 reflecting net declines during last year's AEP for Medicare beneficiaries. These declines primarily resulted from the previously disclosed loss of auto assigned members in Florida and South Carolina due to pricing over the CMS low income benchmark and continued membership declines in our Enhanced Plan. In addition, growth in our co-branded Walmart plan was significantly lower than historical levels due to the introduction of additional low-priced competitor offerings in many regions. For the full year 2019, we anticipate a net membership decline in our Medicare stand-alone PDP offerings of 700,000 to 750,000.
- State-based Medicaid membership decreased 19,000 members, or 5.3%, from December 31, 2017 to December 31, 2018, primarily driven by our election not to participate in Illinois' Medicaid Integrated Care Program and the Virginia Long Term Support Services contract that replaced the state's previous stand-alone dual eligible demonstration program in December 2017. Year-over-year decline was also impacted by lower membership associated with our Florida Medicaid contract due to overall strengthening economic conditions, partially offset by the addition of members associated with the new Florida Managed Medical Assistance program from the contract phase-in for certain regions that began December 1, 2018.

Premiums revenue

- Retail segment premiums increased $3.5 billion, or 7.8%, from 2017 to 2018 primarily reflecting individual and group Medicare Advantage membership growth in last year's AEP as well as increased per-member premiums for certain of the segment's products, partially offset by declines in stand-alone PDP and state-based contracts revenues resulting from year-over-year membership declines discussed above. Average group and individual Medicare Advantage membership increased 7.6% in 2018. Average membership is calculated by summing the ending membership for each month in a period and dividing the result by the number of months in a period. Premiums revenue reflects changes in membership and average per-member premiums. Items impacting average per-member premiums include changes in premium rates as well as changes in the geographic mix of membership, the mix of product offerings, and the mix of benefit plans selected by our membership.

Benefits expense

- The Retail segment benefit ratio of 85.1% for 2018 decreased 50 basis points from 2017 primarily due to the reinstatement of the non-deductible health insurance industry fee in 2018 which was contemplated in the pricing and benefit design of our products, partially offset by the unfavorable impact from enhanced 2018 Medicare Advantage member benefits resulting from the investment of the better than expected 2017 individual Medicare Advantage pretax earnings. 2018 was also impacted by a more severe flu season.
- The Retail segment’s benefits expense for 2018 included the beneficial effect of $398 million in favorable prior-year medical claims reserve development versus $386 million in 2017. This favorable prior-year medical claims reserve development decreased the Retail segment benefit ratio by approximately 80 basis points in 2018 versus approximately 90 basis points in 2017.

Operating costs

- The Retail segment operating cost ratio of 11.1% for 2018 increased 150 basis points from 2017 primarily due to the reinstatement of the health insurance industry fee in 2018 and increase in incentive compensation costs under the expanded program, resulting from the strategic investments made in 2018 as a result of the Tax Reform Law. These items were partially offset by significant operating cost efficiencies in 2018 driven by productivity initiatives implemented in 2017.
- The non-deductible health insurance industry fee increased the operating cost ratio by approximately 190 basis points in 2018.

Group and Specialty Segment

	2018	2017	Change Members	Percentage
Membership:				
Medical membership:				
Fully-insured commercial group	1,004,700	1,097,700	(93,000)	(8.5)%
ASO	481,900	458,700	23,200	5.1 %
Military services	5,928,600	3,081,800	2,846,800	92.4 %
Total group medical members	7,415,200	4,638,200	2,777,000	59.9 %
Specialty membership (a)	6,072,300	6,986,000	(913,700)	(13.1)%

(a) Specialty products include dental, vision, voluntary benefit products and other supplemental health benefits and financial protection products. Members included in these products may not be unique to each product since members have the ability to enroll in multiple products.

	2018	2017	Change Dollars	Percentage
	(in millions)			
Premiums and Services Revenue:				
Premiums:				
Fully-insured commercial group	$5,444	$5,462	$(18)	(0.3)%
Specialty	1,359	1,310	49	3.7 %
Total premiums	6,803	6,772	31	0.5 %
Services	835	626	209	33.4 %
Total premiums and services revenue	$7,638	$7,398	$240	3.2 %
Segment earnings	$361	$412	$(51)	(12.4)%
Benefit ratio	79.7 %	79.2 %		0.5 %
Operating cost ratio	23.6 %	21.4 %		2.2 %

Segment Earnings

- Group and Specialty segment earnings were $361 million in 2018, a decrease of $51 million, or 12.4%, from $412 million in 2017 primarily reflecting higher benefit and operating cost ratios in 2018, partially offset by a favorable year-over-year earnings comparison for our group ASO commercial medical business.

Enrollment

- Fully-insured commercial group medical membership decreased 93,000 members, or 8.5% from December 31, 2017 primarily reflecting lower membership in small group accounts due in part to more small group accounts selecting level-funded ASO products in 2018. The portion of group fully-insured commercial medical membership in small group accounts was approximately 61% at December 31, 2018 and 64% at December 31, 2017.
- Group ASO commercial medical membership increased 23,200 members, or 5.1%, from December 31, 2017 to December 31, 2018 reflecting more small group accounts selecting level-funded ASO products in 2018, partially offset by the loss of certain large group accounts as a result of continued discipline in pricing of services for self-funded accounts amid a highly competitive environment.
- Specialty membership decreased 913,700 members, or 13.1%, from December 31, 2017 to December 31, 2018 primarily resulted from the exit of our voluntary benefits and financial protection lines of business in connection

with the sale of KMG, as well as the loss of some large group accounts offering stand-alone dental and vision products. These decreases were partially offset by an increase in individual dental and vision membership.

Premiums revenue

- Group and Specialty segment premiums increased $31 million, or 0.5%, from 2017 to 2018 primarily due to higher stop-loss premiums related to our level funded ASO accounts resulting from membership growth in this product, and higher per-member premiums across the commercial fully-insured business, partially offset by the exit of our voluntary benefits and financial protection lines of business in connection with the sale of KMG, as well as declines in average group fully-insured commercial medical membership.

Services revenue

- Group and Specialty segment services revenue increased $209 million, or 33.4%, from 2017 to 2018 as a result of the transition to the TRICARE T2017 East Region contract on January 1, 2018.

Benefits expense

- The Group and Specialty segment benefit ratio increased 50 basis points from 79.2% in 2017 to 79.7% in 2018 primarily due to retroactive contractual rate adjustments, membership mix, including the continued migration of healthier groups to level funded ASO products in 2018, and the impact of the exit of our voluntary benefits and financial protection lines of business in connection with the sale of KMG, which carried a very low benefit ratio. These factors were partially offset by the reinstatement of the health insurance industry fee in 2018 which was contemplated in the pricing of our products, and higher favorable prior-period reserve development.
- The Group and Specialty segment's benefits expense included the beneficial effect of $46 million in favorable prior-year medical claims reserve development in 2018 versus $40 million in 2017. This favorable prior-year medical claims reserve development decreased the Group and Specialty segment benefit ratio by approximately 70 basis points in 2018 versus approximately 60 basis points in 2017.

Operating costs

- The Group and Specialty segment operating cost ratio of 23.6% for 2018 increased 220 basis points from 21.4% for 2017. These increases primarily were due to the reinstatement of the health insurance industry fee in 2018, growth in our military services business, which carries a higher operating cost ratio than other products within the segment, as a result of the transition to the TRICARE T2017 East Region contract, an increase in incentive compensation costs under the expanded program resulting from the strategic investments made in 2018 as a result of the Tax Reform Law. These items were partially offset by significant operating cost efficiencies driven by productivity initiatives implemented in 2017, and the impact of the exit of our voluntary benefits and financial protection lines of business in connection with the sale of KMG. The non-deductible health insurance industry fee increased the operating cost ratio by approximately 160 basis points in 2018.

Healthcare Services Segment

	2018	2017	Change Dollars	Change Percentage
	(in millions)			
Revenues:				
Services:				
Clinical care services	$176	$181	$(5)	(2.8)%
Pharmacy solutions	203	80	123	153.8 %
Provider services	228	77	151	196.1 %
Total services revenues	607	338	269	79.6 %
Intersegment revenues:				
Pharmacy solutions	20,514	20,881	(367)	(1.8)%
Provider services	1,994	1,593	401	25.2 %
Clinical care services	662	1,111	(449)	(40.4)%
Total intersegment revenues	23,170	23,585	(415)	(1.8)%
Total services and intersegment revenues	$23,777	$23,923	$(146)	(0.6)%
Segment earnings	$754	$967	$(213)	(22.0)%
Operating cost ratio	96.3 %	95.5 %		0.8 %

Segment Earnings

- Healthcare Services segment earnings were $754 million in 2018, a decrease of $213 million, or 22.0%, from 2017 primarily due to the impact of the optimization process associated with our chronic care management programs and investments made in 2018 as a result of the Tax Reform Law, partially offset by the impact of Kindred at Home.

Script Volume

- Humana Pharmacy Solutions® script volumes for the Retail and Group and Specialty segment membership increased to approximately 440 million in 2018, up 2% versus scripts of approximately 433 million in 2017. The increase primarily reflects growth associated with higher Individual Advantage Medicare membership, partially offset by the decline in stand-alone PDP and Individual Commercial membership.

Services revenue

- Services revenue increased $269 million, or 79.6%, from 2017 to $607 million for 2018 primarily due to service revenue growth from our provider services and pharmacy solutions business.

Intersegment revenues

- Intersegment revenues decreased $415 million, or 1.8%, from 2017 to $23.2 billion for 2018 primarily due to a decline in pharmacy solutions revenue due to lower stand-alone PDP membership, the loss of intersegment revenues associated with our exit from the Individual commercial business, the result of improving the effectiveness of our chronic care management programs, and the impact to our provider services business of the lower Medicare rates year-over-year in geographies where our provider assets are primarily located. These declines were partially offset by Medicare Advantage membership growth as well as higher intersegment revenues associated with our provider services business reflecting our acquisition of MCCI.

Operating costs

- The Healthcare Services segment operating cost ratio of 96.3% for 2018 increased from 95.5% for 2017 primarily due to an increase in incentive compensation costs under the expanded program resulting from the strategic investments made in 2018 as a result of the Tax Reform Law and the lag in operating cost reduction associated with improving the effectiveness of our chronic care management programs as compared to the timing of reduction in revenue. These items were partially offset by significant operating cost efficiencies in 2018 driven by productivity initiatives implemented in 2017.

Individual Commercial Segment

- In 2018, our Individual Commercial segment pretax income was $74 million, a decrease of $119 million, from a pretax income of $193 million in 2017 primarily due to the impact of favorable prior-period reserve development from the run-out of this business. We exited this business effective January 1, 2018.

Other Businesses

As previously disclosed, in the third quarter of 2018, we completed the sale of our wholly-owned subsidiary KMG, as discussed further in Note 3 to the consolidated financial statements included in Item 8. Financial Statements and Supplementary Data in this 2018 Form 10-K.

Comparison of Results of Operations for 2017 and 2016

Certain financial data on a consolidated basis and for our segments was as follows for the years ended December 31, 2017 and 2016:

Consolidated

	2017	2016	Change Dollars	Percentage
	(dollars in millions, except per common share results)			
Revenues:				
Premiums:				
Retail	$44,626	$43,223	$1,403	3.2 %
Group and Specialty	6,772	6,696	76	1.1 %
Individual Commercial	947	3,064	(2,117)	(69.1)%
Other Businesses	35	38	(3)	(7.9)%
Total premiums	52,380	53,021	(641)	(1.2)%
Services:				
Retail	10	6	4	66.7 %
Group and Specialty	626	643	(17)	(2.6)%
Healthcare Services	338	310	28	9.0 %
Other Businesses	8	10	(2)	(20.0)%
Total services	982	969	13	1.3 %
Investment income	405	389	16	4.1 %
Total revenues	53,767	54,379	(612)	(1.1)%
Operating expenses:				
Benefits	43,496	45,007	(1,511)	(3.4)%
Operating costs	6,567	7,173	(606)	(8.4)%
Merger termination fee and related costs, net	(936)	104	(1,040)	(1,000.0)%
Depreciation and amortization	378	354	24	6.8 %
Total operating expenses	49,505	52,638	(3,133)	(6.0)%
Income from operations	4,262	1,741	2,521	144.8 %
Interest expense	242	189	53	28.0 %
Income before income taxes	4,020	1,552	2,468	159.0 %
Provision for income taxes	1,572	938	634	67.6 %
Net income	$2,448	$614	$1,834	298.7 %
Diluted earnings per common share	$16.81	$4.07	$12.74	313.0 %
Benefit ratio (a)	83.0 %	84.9 %		(1.9)%
Operating cost ratio (b)	12.3 %	13.3 %		(1.0)%
Effective tax rate	39.1 %	60.5 %		(21.4)%

(a) Represents total benefits expense as a percentage of premiums revenue.

(b) Represents total operating costs, excluding depreciation and amortization, as a percentage of total revenues less investment income.

Summary

Net income was $2.4 billion, or $16.81 per diluted common share, in 2017 compared to $614 million, or $4.07 per diluted common share, in 2016. Net income in 2017 includes a net gain of $4.31 per diluted common share associated with the terminated Merger Agreement consisting primarily of the break-up fee, and the beneficial effect of the lower effective tax rate in light of pricing and benefit design assumptions with the temporary suspension of the health insurance industry fee of $2.15 per diluted common share, excluding the Individual Commercial business impact. The year-over-year comparison was also favorably impacted by a write-off of $2.43 per diluted common share in receivables associated with the commercial risk corridor premium stabilization program, and the reserve strengthening for our non-strategic closed block of long-term care insurance business of $2.11 per common diluted share recorded in 2016. These items were partially offset by the impact of the tax reform law enacted on December 22, 2017, or the Tax Reform Law, which resulted in the reduction of our net income due to the remeasurement of deferred tax assets at lower enacted corporate tax rates of $0.92 per diluted common share, $0.64 per common diluted share in charges associated with both voluntary and involuntary workforce reduction programs in 2017, as well as the estimated guaranty fund assessment expense to support the policyholder obligations of Penn Treaty (an unaffiliated long-term care insurance company) of $0.24 per diluted common share. Excluding the impacts of the items above, the increase in net income primarily was due to year-over-year improvements in earnings for our Individual Commercial, Retail, and Group and Specialty segments, partially offset by lower earnings in the Healthcare Services segment.

Premiums Revenue

Consolidated premiums decreased $641 million, or 1.2%, from 2016 to $52.4 billion for 2017 primarily due to lower premiums in the Individual Commercial segment, partially offset by higher premiums in the Retail segment, primarily resulting from growth in our Medicare Advantage business, and higher premiums in the Group and Specialty segment, as discussed in the detailed segment results discussion that follows.

Services Revenue

Consolidated services revenue increased $13 million, or 1.3%, from 2016 for 2017 primarily due to an increase in services revenue in the Healthcare Services segment, partially offset by a decrease in services revenue in the Group and Specialty segment as discussed in the detailed segment results discussion that follows.

Investment Income

Investment income totaled $405 million for 2017, increasing $16 million, or 4.1%, from 2016, primarily due to higher average invested balances and interest rates in 2017, partially offset by lower realized capital gains.

Benefits Expense

Consolidated benefits expense was $43.5 billion for 2017, a decrease of $1.5 billion, or 3.4%, from 2016 reflecting $505 million in incremental benefits expense for the reserve strengthening in our non-strategic closed block of long-term care insurance policies recorded in 2016. Excluding the long-term care reserve strengthening in 2016, the decrease primarily was due to a decrease in the Individual Commercial segment benefits expense, partially offset by an increase in the Retail and Group and Specialty segments benefits expense as discussed in the detailed segment results discussion that follows. As more fully described herein under the section entitled “Benefits Expense Recognition”, actuarial standards require the use of assumptions based on moderately adverse experience, which generally results in favorable reserve development, or reserves that are considered redundant. We experienced favorable medical claims reserve development related to prior fiscal years of $483 million in 2017 and $582 million in 2016.

The consolidated benefit ratio for 2017 was 83.0%, a decrease of 190 basis points from 2016 primarily due to the incremental benefits expense in 2016 for the reserve strengthening in our non-strategic closed block of long-term care insurance policies. Excluding the impact of the above, the decrease in the consolidated benefit ratio primarily was due to the decrease in the Individual Commercial segment benefit ratio, partially offset by the increase in the Retail and Group and Specialty segment benefit ratio as discussed in the segment results of operation discussion that follows. Favorable prior-period medical claims reserve development decreased the consolidated benefit ratio by approximately 90 basis points in 2017 versus approximately 110 basis points in 2016.

Operating Costs

Our segments incur both direct and shared indirect operating costs. We allocate the indirect costs shared by the segments primarily as a function of revenues. As a result, the profitability of each segment is interdependent.

Consolidated operating costs decreased $606 million, or 8.4%, from 2016 to $6.6 billion in 2017 primarily due to the temporary suspension of the health insurance industry fee for the calendar year 2017 and lower Individual Commercial membership. This was partially offset by charges associated with both voluntary and involuntary workforce reduction programs, an increase in employee compensation costs resulting from the continued strong performance, increased spending associated with the Medicare Annual Election Period, or AEP, as well as the estimated guaranty fund assessment expense recorded to support the policyholder obligations of Penn Treaty (an unaffiliated long-term care insurance company).

The consolidated operating cost ratio for 2017 was 12.3%, decreasing 100 basis points from 2016 primarily due to the temporary suspension of the health insurance industry fee for the calendar year 2017, the write-off of receivables associated with the commercial risk corridor premium stabilization program in 2016, as well as operating cost efficiencies, partially offset by the loss of scale efficiency from market exits in the 2017 period associated with the Individual Commercial product, the estimated charges associated with both voluntary and involuntary workforce reduction programs recorded in 2017, increased employee compensation costs resulting from the continued strong performance, as well as the impact of the estimated guaranty fund assessment expense recorded to support the policyholder obligations of Penn Treaty (an unaffiliated long-term care insurance company). The non-deductible health insurance industry fee impacted the operating cost ratio by 170 basis points in 2016.

Depreciation and Amortization

Depreciation and amortization for 2017 of $378 million was relatively unchanged from 2016.

Interest Expense

Interest expense was $242 million for 2017 compared to $189 million for 2016, an increase of $53 million, or 28.0% due to the issuance of $1.8 billion in senior notes, a portion of the proceeds which were used to redeem $800 million of senior notes scheduled to mature in 2018. We recognized a loss on extinguishment of debt of approximately $17 million in December 2017 for the redemption of these senior notes, which is included in interest expense.

Income Taxes

Our effective tax rate during 2017 was 39.1% compared to the effective tax rate of 60.5% in 2016 primarily reflecting the suspension of the annual health insurance industry fee in 2017, as well as previously non-deductible transaction costs that, as a result of termination of the Merger Agreement, became deductible for tax purposes and were recorded as such in the first quarter of 2017, partially offset by the Tax Reform Law, which increased our effective tax rate due to the remeasurement of deferred tax assets at lower enacted corporate tax rates. See Note 11 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data for a complete reconciliation of the federal statutory rate to the effective tax rate.

Retail Segment

	2017	2016	Change Members	Percentage
Membership:				
Medical membership:				
Individual Medicare Advantage	2,860,800	2,837,600	23,200	0.8 %
Group Medicare Advantage	441,400	355,400	86,000	24.2 %
Medicare stand-alone PDP	5,308,100	4,951,400	356,700	7.2 %
Total Retail Medicare	8,610,300	8,144,400	465,900	5.7 %
State-based Medicaid	360,100	388,100	(28,000)	(7.2)%
Medicare Supplement	235,900	218,800	17,100	7.8 %
Total Retail medical members	9,206,300	8,751,300	455,000	5.2 %

	2017	2016	Change Dollars	Percentage
	(in millions)			
Premiums and Services Revenue:				
Premiums:				
Individual Medicare Advantage	$32,720	$31,863	$857	2.7 %
Group Medicare Advantage	5,155	4,283	872	20.4 %
Medicare stand-alone PDP	3,702	4,009	(307)	(7.7)%
Total Retail Medicare	41,577	40,155	1,422	3.5 %
State-based Medicaid	2,571	2,640	(69)	(2.6)%
Medicare Supplement	478	$428	50	11.7 %
Total premiums	44,626	43,223	1,403	3.2 %
Services	10	6	4	66.7 %
Total premiums and services revenue	$44,636	$43,229	$1,407	3.3 %
Segment earnings	$1,978	$1,690	$288	17.0 %
Benefit ratio	85.6 %	85.1 %		0.5 %
Operating cost ratio	9.6 %	10.8 %		(1.2)%

Segment Earnings

- Retail segment earnings were $2.0 billion in 2017, an increase of $288 million, or 17.0%, compared to 2016 primarily driven by the year-over-year improvement in our Medicare Advantage business.

Enrollment

- Individual Medicare Advantage membership increased 23,200 members, or 0.8%, from December 31, 2016 to December 31, 2017 reflecting net membership additions for Medicare beneficiaries including the effect of planned market and product exits in 2017. We decided certain markets and/or products were not meeting long term strategic and financial objectives. Additionally, membership growth was muted due to competitive actions including the uncertainty associated with the then-pending Merger transaction during last year's AEP.
- Group Medicare Advantage membership increased 86,000 members, or 24.2%, from December 31, 2016 to December 31, 2017 reflecting the addition of a large account in January 2017.

- Medicare stand-alone PDP membership increased 356,700 members, or 7.2%, from December 31, 2016 to December 31, 2017 reflecting net membership additions, primarily for our Humana-Walmart plan offering, for the 2017 plan year.
- State-based Medicaid membership decreased 28,000 members, or 7.2%, from December 31, 2016 to December 31, 2017 primarily driven by lower membership associated with our Florida contracts resulting from network realignments.

Premiums revenue

- Retail segment premiums increased $1.4 billion, or 3.2%, from 2016 to 2017 primarily due to Medicare Advantage membership growth and increased per-member premiums for certain of the segment's products. Average group and individual Medicare Advantage membership increased 3.4% in 2017. Average membership is calculated by summing the ending membership for each month in a period and dividing the result by the number of months in a period. Premiums revenue reflects changes in membership and average per-member premiums. Items impacting average per-member premiums include changes in premium rates as well as changes in the geographic mix of membership, the mix of product offerings, and the mix of benefit plans selected by our membership.

Benefits expense

- The Retail segment benefit ratio of 85.6% for 2017 increased 50 basis points from 2016 primarily due to the impact of the temporary suspension of the health insurance industry fee for calendar year 2017 which was contemplated in the pricing and benefit design of our products, margin compression associated with the competitive environment in the group Medicare Advantage business and slightly lower favorable prior-period medical claims reserve development. These increases were partially offset by the impact of planned exits from certain Medicare Advantage markets that carried a higher benefit ratio than other markets as well as lower than expected medical costs as compared to the assumptions used in the pricing of our individual Medicare Advantage business.
- The Retail segment’s benefits expense for 2017 included the beneficial effect of $386 million in favorable prior-year medical claims reserve development versus $429 million in 2016. This favorable prior-year medical claims reserve development decreased the Retail segment benefit ratio by approximately 90 basis points in 2017 versus approximately 100 basis points in 2016.

Operating costs

- The Retail segment operating cost ratio of 9.6% for 2017 decreased 120 basis points from 2016 primarily due to the temporary suspension of the health insurance industry fee for calendar year 2017, partially offset by increased spending associated with AEP, investments in our integrated care delivery model, and the increase in employee compensation costs resulting from the continued strong performance. The non-deductible health insurance industry fee increased the operating cost ratio by approximately 170 basis points in 2016.

Group and Specialty Segment

	2017	2016	Change Members	Percentage
Membership:				
Medical membership:				
Fully-insured commercial group	1,097,700	1,136,000	(38,300)	(3.4)%
ASO	458,700	573,200	(114,500)	(20.0)%
Military services	3,081,800	3,084,100	(2,300)	(0.1)%
Total group medical members	4,638,200	4,793,300	(155,100)	(3.2)%
Specialty membership (a)	6,986,000	6,961,200	24,800	0.4 %

(a) Specialty products include dental, vision, voluntary benefit products and other supplemental health and financial protection products. Members included in these products may not be unique to each product since members have the ability to enroll in multiple products.

	2017	2016	Change Dollar	Percentage
	(in millions)			
Premiums and Services Revenue:				
Premiums:				
Fully-insured commercial group	$5,462	$5,405	$57	1.1 %
Specialty	1,310	1,279	31	2.4 %
Military services	—	12	(12)	(100.0)%
Total premiums	6,772	6,696	76	1.0 %
Services	626	643	(17)	(2.6)%
Total premiums and services revenue	$7,398	$7,339	$59	0.8 %
Income before income taxes	$412	$344	$68	19.8 %
Benefit ratio	79.2 %	78.2 %		1.0 %
Operating cost ratio	21.4 %	23.5 %		(2.1)%

Segment Earnings

- Group and Specialty segment earnings were $412 million in 2017, an increase of $68 million, or 19.8%, from $344 million in 2016 primarily reflecting the impact of higher pretax earnings associated with our fully-insured commercial business as well as higher earnings from our military services business resulting from higher performance incentives earned under the TRICARE contract.

Enrollment

- Fully-insured commercial group medical membership decreased 38,300 members, or 3.4% from December 31, 2016 reflecting lower membership in small group accounts due in part to more small group accounts selecting ASO products in 2017.
- Group ASO commercial medical membership decreased 114,500 members, or 20.0%, from December 31, 2016 to December 31, 2017 primarily due to the loss of certain large group accounts as a result of continued discipline in pricing of services for self-funded accounts amid a highly competitive environment, partially offset by more small group accounts selecting ASO products in 2017.
- Specialty membership increased 24,800 members, or 0.4%, from December 31, 2016 to December 31, 2017 primarily due to strong growth in vision products marketed to employer groups.

Premiums revenue

- Group and Specialty segment premiums increased $76 million, or 1.1%, from 2016 to 2017 primarily due to an increase in group fully-insured commercial medical per-member premiums, partially offset by a decline in average group fully-insured commercial medical membership.

Services revenue

- Group and Specialty segment services revenue decreased $17 million, or 2.6%, from 2016 to 2017 primarily due to a decline in revenue in our group ASO commercial medical business mainly due to membership declines partially offset by higher revenue from our military services business resulting from higher performance incentives earned under the TRICARE contract.

Benefits expense

- The Group and Specialty segment benefit ratio increased 100 basis points from 78.2% in 2016 to 79.2% in 2017 primarily due to the impact of the temporary suspension of the health insurance industry fee for calendar year 2017 which was contemplated in the pricing of our products. The increase was further impacted by an increased proportion of small group members transitioning to community rated plans that carry a higher benefit ratio. These increases were partially offset by lower utilization for the fully-insured commercial medical business in 2017, primarily associated with the large group business.
- The Group and Specialty segment's benefits expense included the beneficial effect of $40 million in favorable prior-year medical claims reserve development in 2017 versus $46 million in 2016. This favorable prior-year medical claims reserve development decreased the Group and Specialty segment benefit ratio by approximately 60 basis points in 2017 versus approximately 70 basis points in 2016.

Operating costs

- The Group and Specialty segment operating cost ratio of 21.4% for 2017 decreased 210 basis points from 23.5% for 2016, primarily due to the temporary suspension of the health insurance industry fee for calendar year 2017 as well as operating cost efficiencies, partially offset by an increase in employee compensation costs resulting from the continued strong performance. The non-deductible health insurance industry fee increased the operating cost ratio by approximately 150 basis points in 2016.

Healthcare Services Segment

	2017	2016	Change Dollars	Percentage
	(in millions)			
Revenues:				
Services:				
Clinical care services	$181	$201	$(20)	(10.0)%
Provider services	77	78	(1)	(1.3)%
Pharmacy solutions	80	31	49	158.1 %
Total services revenues	338	310	28	9.0 %
Intersegment revenues:				
Pharmacy solutions	20,881	21,952	(1,071)	(4.9)%
Provider services	1,593	1,677	(84)	(5.0)%
Clinical care services	1,111	1,343	(232)	(17.3)%
Total intersegment revenues	23,585	24,972	(1,387)	(5.6)%
Total services and intersegment revenues	$23,923	$25,282	$(1,359)	(5.4)%
Income before income taxes	$967	$1,096	$(129)	(11.8)%
Operating cost ratio	95.5 %	95.2 %		0.3 %

Segment Earnings

- Healthcare Services segment earnings of $967 million for 2017, a decrease of $129 million, or 11.8%, from 2016 primarily due to the impact of the optimization process associated with our chronic care management programs, as well as lower earnings in our provider services business reflecting lower Medicare rates year-over-year in geographies where our provider assets are primarily located. The reductions in pharmacy solutions intersegment revenues were offset by similar reductions in operating costs associated with the pharmacy solutions business.

Script Volume

- Humana Pharmacy Solutions® script volumes for the Retail and Group and Specialty segment membership increased to approximately 433 million in 2017, up 2% versus scripts of approximately 426 million in 2016. The increase primarily reflects growth associated with higher Medicare membership for 2017 than in 2016, partially offset by the decline in Individual Commercial membership.

Services revenue

- Services revenue increased $28 million, or 9.0%, from 2016 to $338 million for 2017 primarily due to service revenue growth from our pharmacy solutions business.

Intersegment revenues

- Intersegment revenues decreased $1.4 billion, or 5.6%, from 2016 to $23.6 billion for 2017 primarily due to care management programs discussed previously, as well as lower revenue in our provider services business reflecting lower Medicare rates year-over-year in geographies where our provider assets are primarily located. Our pharmacy solutions business revenues were impacted by improvements in net pharmacy costs driven by our pharmacy benefit manager and an increase in the generic dispensing rate. These items were partially offset by higher year-over-year script volume from growth in our Medicare Advantage and standalone PDP membership, partially offset by the impact of lower Individual Commercial membership. Our generic dispensing rate improved to 91.3% during 2017 from 90.5% during 2016. The higher generic dispensing rate

reduced revenues (and operating costs) for our pharmacy solutions business as generic drugs are generally priced lower than branded drugs.

Operating costs

- The Healthcare Services segment operating cost ratio of 95.5% for 2017 was relatively unchanged from 95.2% for 2016.

Individual Commercial Segment

- As announced on February 14, 2017, we exited our Individual Commercial medical business January 1, 2018.
- In 2017, our Individual Commercial segment pretax income was $193 million, an increase of $1.1 billion, from a pretax loss of $869 million in 2016 primarily due to the exit of certain markets in 2017, and per-member premium increases, as well as the reduction of premiums related to the write-off of receivables associated with the commercial risk corridor premium stabilization program.
- Individual commercial medical membership decreased 526,000 members, or 80.3%, from December 31, 2016 to December 31, 2017 reflecting the decline in the number of counties we offered on-exchange coverage and the discontinuance of offering off-exchange products.
- The Individual Commercial segment benefit ratio of 57.4% for 2017 decreased from 107.7% in 2016 primarily due to the reduction of premiums related to the write-off of receivables associated with the commercial risk corridor premium stabilization program, as well as the planned exits in 2017 in certain markets that carried a higher benefit ratio and per-member premium increases.
- The Individual Commercial segment operating cost ratio of 21.2% for 2017 increased 160 basis points from 2016 primarily due to the loss of scale efficiency from market exits in 2017, partially offset by the write-off of receivables associated with the commercial risk corridor premium stabilization program and the temporary suspension of the health insurance industry fee for calendar year 2017.

Other Businesses

As previously disclosed, in the fourth quarter of 2016, we increased future policy benefits expense by approximately $505 million for reserve strengthening associated with our closed block of long-term care insurance policies. This increase primarily was driven by emerging experience indicating longer claims duration, a prolonged lower interest rate environment, and an increase in policyholder life expectancies as discussed further in Note 18 to the consolidated financial statements included in Item 8. Financial Statements and Supplementary Data in this 2018 Form 10-K.

Liquidity

Historically, our primary sources of cash have included receipts of premiums, services revenue, and investment and other income, as well as proceeds from the sale or maturity of our investment securities, borrowings, and proceeds from sales of businesses. Our primary uses of cash historically have included disbursements for claims payments, operating costs, interest on borrowings, taxes, purchases of investment securities, acquisitions, capital expenditures, repayments on borrowings, dividends, and share repurchases. Because premiums generally are collected in advance of claim payments by a period of up to several months, our business normally should produce positive cash flows during periods of increasing premiums and enrollment. Conversely, cash flows would be negatively impacted during periods of decreasing premiums and enrollment. From period to period, our cash flows may also be affected by the timing of working capital items including premiums receivable, benefits payable, and other receivables and payables. Our cash flows are impacted by the timing of payments to and receipts from CMS associated with Medicare Part D subsidies for which we do not assume risk. The use of cash flows may be limited by regulatory requirements of state departments of insurance (or comparable state regulators) which require, among other items, that our regulated subsidiaries maintain minimum levels of capital and seek approval before paying dividends from the subsidiaries to the parent. Our use of cash flows derived from our non-insurance subsidiaries, such as in our Healthcare Services segment, is generally not restricted by state departments of insurance (or comparable state regulators).

For additional information on our liquidity risk, please refer to Item 1A. – Risk Factors in this 2018 Form 10-K.

Cash and cash equivalents decreased to $2.3 billion at December 31, 2018 from $4.0 billion at December 31, 2017. The change in cash and cash equivalents for the years ended December 31, 2018, 2017 and 2016 is summarized as follows:

	2018	2017	2016
	(in millions)		
Net cash provided by operating activities	$2,173	$4,051	$1,936
Net cash used in investing activities	(3,087)	(2,941)	(1,362)
Net cash (used in) provided by financing activities	(785)	(945)	732
(Decrease) increase in cash and cash equivalents	$(1,699)	$165	$1,306

Cash Flow from Operating Activities

The change in operating cash flows over the three year period primarily results from the corresponding change in the timing of working capital items, earnings, and enrollment activity as discussed below. The decrease in operating cash flows in 2018 primarily was due to the receipt of the merger termination fee in 2017, net of related expenses and taxes paid, funding the reinsurance of certain voluntary benefit and financial protection products to a third party in connection with the sale of KMG in 2018, and the timing of working capital items.

The increase in operating cash flows in 2017 primarily was due to the receipt of the merger termination fee, net of related expenses and taxes paid, higher earnings and the timing of working capital items.

The most significant drivers of changes in our working capital are typically the timing of payments of benefits expense and receipts for premiums. We illustrate these changes with the following summaries of benefits payable and receivables.

The detail of benefits payable was as follows at December 31, 2018, 2017 and 2016:

				Change		
	2018	2017	2016	2018	2017	2016
	(in millions)					
IBNR (1)	$3,361	$3,154	$3,422	$207	$(268)	$(308)
Reported claims in process (2)	617	614	654	3	(40)	54
Premium deficiency reserve (3)	—	—	—	—	—	(176)
Other benefits payable (4)	884	900	487	(16)	413	17
Total benefits payable	$4,862	$4,668	$4,563	194	105	(413)
Payables from disposition				58	—	—
Change in benefits payable per cash flow statement resulting in cash from operations				$252	$105	$(413)

(1) IBNR represents an estimate of benefits payable for claims incurred but not reported (IBNR) at the balance sheet date and includes unprocessed claim inventories. The level of IBNR is primarily impacted by membership levels, medical claim trends and the receipt cycle time, which represents the length of time between when a claim is initially incurred and when the claim form is received (i.e. a shorter time span results in a lower IBNR).

(2) Reported claims in process represents the estimated valuation of processed claims that are in the post claim adjudication process, which consists of administrative functions such as audit and check batching and handling, as well as amounts owed to our pharmacy benefit administrator which fluctuate due to bi-weekly payments and the month-end cutoff.

(3) Premium deficiency reserve recognized for our individual commercial medical business compliant with the Health Care Reform Law associated with the 2016 coverage year.

(4) Other benefits payable include amounts owed to providers under capitated and risk sharing arrangements.

The increase in benefits payable in 2018 was primarily due to an increase in IBNR, mainly as a result of Medicare Advantage membership growth. The increase in benefits payable from 2016 to 2017 primarily was due to an increase in the amounts owed to providers under the capitated and risk sharing arrangements. This was partially offset by a decrease in IBNR primarily driven by declines in individual commercial medical membership in the 2017 period, partially offset by an increase in group Medicare Advantage membership. Benefits payable decreased in 2016 primarily due to a decrease in IBNR, as well as the application of 2016 results to the premium deficiency reserve liability recognized in 2015 associated with our individual commercial medical products compliant with the Health Care Reform Law for the 2016 coverage year.

IBNR decreased during 2017 and 2016 primarily due to declines in individual and fully-insured group commercial membership. The decrease in IBNR during 2016 was also impacted by declines in group Medicare Advantage membership.

The detail of total net receivables was as follows at December 31, 2018, 2017 and 2016:

				Change		
	2018	2017	2016	2018	2017	2016
	(in millions)					
Medicare	$836	$511	$787	$325	$(276)	$101
Commercial and other	135	273	579	(138)	(306)	39
Military services	123	166	32	(43)	134	(29)
Allowance for doubtful accounts	(79)	(96)	(118)	17	22	(3)
Total net receivables	$1,015	$854	$1,280	161	(426)	108
Reconciliation to cash flow statement:						
Provision for doubtful accounts				36	20	39
Change in receivables disposed from sale of business				3	—	11
Change in receivables per cash flow statement resulting in cash from operations				$200	$(406)	$158

Medicare receivables are impacted by changes in revenue associated with individual and group Medicare membership changes as well as the timing of accruals and related collections associated with the CMS risk-adjustment model.

The decrease in commercial and other receivables in 2018 as compared to 2017, as well as the decrease in 2017 as compared to 2016, was due primarily to a decrease in our receivable associated with the commercial risk adjustment provision of the Health Care Reform Law. This decrease corresponds with our exit from the Individual Commercial business.

Military services receivables at December 31, 2018, 2017, and 2016 primarily consist of administrative services only fees owed from the federal government for administrative services provided under our TRICARE contracts. The 2017 balance also includes transition-in receivables under our T2017 East Region contract collected in 2018.

Many provisions of the Health Care Reform Law became effective in 2014, including the commercial risk adjustment, risk corridor, and reinsurance provisions as well as the non-deductible health insurance industry fee. The effect of the commercial risk adjustment, risk corridor, and reinsurance provisions of the Health Care Reform law, also known as the 3R's, has impacted our operating cash flows over the last three years, but more significantly in 2017 and 2016 as the temporary risk corridor and reinsurance program provisions phased out in 2016. The timing of payments and receipts associated with these provisions impacted our operating cash flows as we built receivables for each coverage year that were expected to be collected in subsequent coverage years. Net collections under the 3Rs associated with prior coverage years were $8 million in 2018, $440 million in 2017 and $383 million in 2016. The annual health insurance industry fee was suspended for the calendar year 2017, but resumed in calendar year 2018. The annual health insurance industry fee was also suspended for the calendar year 2019 and, under current law, is scheduled to resume in calendar year 2020. We paid the federal government annual health insurance industry fees of $1.04 billion in 2018 and $916 million in 2016.

In addition to the timing of payments of benefits expense, receipts for premiums and services revenues, and amounts due under the risk limiting and health insurance industry fee provisions of the Health Care Reform Law, other items impacting operating cash flows include income tax payments and the timing of payroll cycles.

Cash Flow from Investing Activities

Our ongoing capital expenditures primarily relate to our information technology initiatives, support of services in our provider services operations including medical and administrative facility improvements necessary for activities such as the provision of care to members, claims processing, billing and collections, wellness solutions, care

coordination, regulatory compliance and customer service. Total capital expenditures, excluding acquisitions, were $612 million in 2018, $524 million in 2017, and $527 million in 2016.

In 2018, we completed the sale of our wholly-owned subsidiary KMG to CGIC. Upon closing, we funded the transaction with approximately $190 million of parent company cash contributed into KMG, subject to customary adjustments, in addition to the transfer of approximately $160 million of statutory capital with the sale. Total cash and cash equivalents, including parent company funding, disposed at the time of sale, was $805 million. See Note 3 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data
During 2018 we paid cash consideration of approximately $1.1 billion to acquire a 40% minority interest in Kindred at Home, $169 million to acquire the remaining interest in MCCI, and $185 million to acquire all of FPG, as discussed in Note 3 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data.

We reinvested a portion of our operating cash flows in investment securities, primarily investment-grade fixed income securities, totaling $221 million, $2.4 billion, and $828 million during 2018, 2017 and 2016 respectively.
Cash Flow from Financing Activities
Our financing cash flows are significantly impacted by the timing of claims payments and the related receipts from CMS associated with Medicare Part D claim subsidies for which we do not assume risk. Monthly prospective payments from CMS for reinsurance and low-income cost subsidies are based on assumptions submitted with our annual bid. Settlement of the reinsurance and low-income cost subsidies is based on a reconciliation made approximately 9 months after the close of each calendar year. Claims payments were $653 million higher than receipts from CMS associated with Medicare Part D claim subsidies for which we do not assume risk during 2018. Receipts from CMS associated with Medicare Part D claims subsidies for which we do not assume risk were $1.9 billion higher than claims payments during 2017 and were $1.1 billion higher than claims payments during 2016. Our net payable for CMS subsidies and brand name prescription drug discounts was $331 million at December 31, 2018 compared to a net payable of $1.0 billion at December 31, 2017.
Under our administrative services only TRICARE contract, reimbursements from the federal government exceeded health care cost payments for which we do not assume risk by $38 million in 2018 and by $11 million in 2017. Health care cost payments for which we do not assume risk exceeded reimbursements from the federal government by $25 million in 2016.
Claims payments associated with cost sharing provisions of the Health Care Reform Law for which we do not assume risk were $25 million in 2018. There were no reimbursements from HHS in 2018. Claims payments associated with cost sharing provisions of the Health Care Reform Law for which we do not assume risk were higher than reimbursements from HHS by $44 million in 2017 and by $28 million in 2016.
We repurchased common shares for $1.09 billion in 2018 and $3.37 billion in 2017 under share repurchase plans authorized by the Board of Directors and in connection with employee stock plans. We did not repurchase shares in 2016 due to restrictions under the Merger Agreement.
As discussed further below, we paid dividends to stockholders of $265 million in 2018, $220 million in 2017, and $177 million in 2016.
We entered into a commercial paper program in October 2014. Net proceeds from the issuance of commercial paper were $485 million in 2018 and the maximum principal amount outstanding at any one time during 2018 was $923 million. Net repayments of commercial paper were $153 million in 2017 and the maximum principal amount outstanding at any one time during 2017 was $500 million. Net repayments of commercial paper were $2 million in 2016 and the maximum principal amount outstanding at any one time during 2016 was $475 million.
In December 2017, we issued $400 million of 2.50% senior notes due December 15, 2020 and $400 million of 2.90% senior notes due December 15, 2022. Our net proceeds, reduced for the underwriters' discount and commission and offering expenses paid as of December 31, 2017, were $794 million. We used the net proceeds, together with

available cash, to fund the redemption of our $300 million aggregate principal amount of 6.30% senior notes maturing in August 2018 and our $500 million aggregate principal amount of 7.20% senior notes maturing in June 2018 at 100% of the principal amount plus applicable premium for early redemption and accrued and unpaid interest to the redemption date, for cash totaling approximately $829 million.

The remainder of the cash used in or provided by financing activities in 2018, 2017, and 2016 primarily resulted from proceeds from stock option exercises and the change in book overdraft.

Future Sources and Uses of Liquidity

Dividends

For a detailed discussion of dividends to stockholders, please refer to Note 15 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data.

Stock Repurchases

For a detailed discussion of stock repurchases, please refer to Note 15 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data.

Debt

For a detailed discussion of our debt, including our senior notes, credit agreement and commercial paper program, please refer to Note 12 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data.

Liquidity Requirements

We believe our cash balances, investment securities, operating cash flows, and funds available under our credit agreement and our commercial paper program or from other public or private financing sources, taken together, provide adequate resources to fund ongoing operating and regulatory requirements, acquisitions, future expansion opportunities, and capital expenditures for at least the next twelve months, as well as to refinance or repay debt, and repurchase shares.

Adverse changes in our credit rating may increase the rate of interest we pay and may impact the amount of credit available to us in the future. Our investment-grade credit rating at December 31, 2018 was BBB+ according to Standard & Poor’s Rating Services, or S&P, and Baa3 according to Moody’s Investors Services, Inc., or Moody’s. A downgrade by S&P to BB+ or by Moody’s to Ba1 triggers an interest rate increase of 25 basis points with respect to $250 million of our senior notes. Successive one notch downgrades increase the interest rate an additional 25 basis points, or annual interest expense by $1 million, up to a maximum 100 basis points, or annual interest expense by $3 million.

In addition, we operate as a holding company in a highly regulated industry. Humana Inc., our parent company, is dependent upon dividends and administrative expense reimbursements from our subsidiaries, most of which are subject to regulatory restrictions. We continue to maintain significant levels of aggregate excess statutory capital and surplus in our state-regulated operating subsidiaries. Cash, cash equivalents, and short-term investments at the parent company decreased to $578 million at December 31, 2018 from $688 million at December 31, 2017. This decrease primarily reflects acquisitions, common stock repurchases, insurance subsidiaries' capital contributions and capital expenditures, partially offset by insurance subsidiaries dividends, non-insurance subsidiaries' profits and net proceeds from debt issuance. Our use of operating cash derived from our non-insurance subsidiaries, such as our Healthcare Services segment, is generally not restricted by Departments of Insurance (or comparable state regulatory agencies). Our regulated insurance subsidiaries paid dividends to the parent of $2.3 billion in 2018, $1.4 billion in 2017, and $0.8 billion in 2016. Refer to our parent company financial statements and accompanying notes in Schedule I - Parent Company Financial Information. The amount of ordinary dividends that may be paid to our parent company in 2019 is approximately $1 billion, in the aggregate. Actual dividends paid may vary due to consideration of excess statutory

capital and surplus and expected future surplus requirements related to, for example, premium volume and product mix.

Regulatory Requirements

For a detailed discussion of our regulatory requirements, including aggregate statutory capital and surplus as well as dividends paid from the subsidiaries to the parent, please refer to Note 15 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data.

Contractual Obligations

We are contractually obligated to make payments for years subsequent to December 31, 2018 as follows:

	Payments Due by Period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
	(in millions)				
Debt	$6,097	$ 1,697	$ 400	$ 1,000	$ 3,000
Interest (1)	8,955	1,926	1,161	914	4,954
Operating leases (2)	519	147	210	112	50
Purchase obligations (3)	736	240	337	159	—
Future policy benefits payable and other long-term liabilities (4)	724	53	444	68	159
Total	$17,031	$ 4,063	$ 2,552	$ 2,253	$ 8,163

(1) Interest includes the estimated contractual interest payments under our debt agreements.

(2) We lease facilities, computer hardware, and other furniture and equipment under long-term operating leases that are noncancelable and expire on various dates through 2046. We sublease facilities or partial facilities to third party tenants for space not used in our operations which partially mitigates our operating lease commitments. See also Note 16 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data.

(3) Purchase obligations include agreements to purchase services, primarily information technology related services, or to make improvements to real estate, in each case that are enforceable and legally binding on us and that specify all significant terms, including: fixed or minimum levels of service to be purchased; fixed, minimum or variable price provisions; and the appropriate timing of the transaction. Purchase obligations exclude agreements that are cancelable without penalty.

(4) Includes future policy benefits payable ceded to third parties through 100% coinsurance agreements as more fully described in Note 19 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data. We expect the assuming reinsurance carriers to fund these obligations and reflected these amounts as reinsurance recoverables included in other long-term assets on our consolidated balance sheet. Amounts payable in less than one year are included in trade accounts payable and accrued expenses in the consolidated balance sheet.

Off-Balance Sheet Arrangements

As of December 31, 2018, we were not involved in any special purpose entity, or SPE, transactions. For a detailed discussion of off-balance sheet arrangements, please refer to Note 16 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data.

Guarantees and Indemnifications

For a detailed discussion of our guarantees and indemnifications, please refer to Note 16 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data.

Government Contracts

For a detailed discussion of our government contracts, including our Medicare, Military, and Medicaid contracts, please refer to Note 16 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data.

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements and accompanying notes, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements and accompanying notes requires us to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. We continuously evaluate our estimates and those critical accounting policies primarily related to benefits expense and revenue recognition as well as accounting for impairments related to our investment securities, goodwill, and long-lived assets. These estimates are based on knowledge of current events and anticipated future events and, accordingly, actual results ultimately may differ from those estimates. We believe the following critical accounting policies involve the most significant judgments and estimates used in the preparation of our consolidated financial statements.

Benefits Expense Recognition

Benefits expense is recognized in the period in which services are provided and includes an estimate of the cost of services which have been incurred but not yet reported, or IBNR. IBNR represents a substantial portion of our benefits payable as follows:

	December 31, 2018	Percentage of Total		December 31, 2017	Percentage of Total	
	(dollars in millions)					
IBNR	$3,361	69.1	%	$ 3,154	67.6	%
Reported claims in process	617	12.7	%	614	13.1	%
Other benefits payable	884	18.2	%	900	19.3	%
Total benefits payable	$4,862	100.0	%	$ 4,668	100.0	%

Our reserving practice is to consistently recognize the actuarial best point estimate within a level of confidence required by actuarial standards. For further discussion of our reserving methodology, including our use of completion and claims per member per month trend factors to estimate IBNR, refer to Note 2 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data.

The completion and claims per member per month trend factors are the most significant factors impacting the IBNR estimate. The portion of IBNR estimated using completion factors for claims incurred prior to the most recent two months is generally less variable than the portion of IBNR estimated using trend factors. The following table illustrates the sensitivity of these factors assuming moderately adverse experience and the estimated potential impact on our operating results caused by reasonably likely changes in these factors based on December 31, 2018 data:

Completion Factor (a):		Claims Trend Factor (b):	
Factor Change (c)	Decrease in Benefits Payable	Factor Change (c)	Decrease in Benefits Payable
(dollars in millions)			
0.70%	$(258)	(3.00)%	$(224)
0.60%	$(222)	(2.75)%	$(206)
0.50%	$(185)	(2.50)%	$(187)
0.40%	$(148)	(2.25)%	$(168)
0.30%	$(111)	(2.00)%	$(150)
0.20%	$(74)	(1.75)%	$(131)
0.10%	$(37)	(1.50)%	$(112)

(a) Reflects estimated potential changes in benefits payable at December 31, 2018 caused by changes in completion factors for incurred months prior to the most recent two months.

(b) Reflects estimated potential changes in benefits payable at December 31, 2018 caused by changes in annualized claims trend used for the estimation of per member per month incurred claims for the most recent two months.

(c) The factor change indicated represents the percentage point change.

The following table provides a historical perspective regarding the accrual and payment of our benefits payable, excluding military services. Components of the total incurred claims for each year include amounts accrued for current year estimated benefits expense as well as adjustments to prior year estimated accruals. Refer to Note 10 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data for Retail, Group and Specialty, and Individual Commercial segment tables including information about incurred and paid claims development as of December 31, 2018, net of reinsurance, as well as cumulative claim frequency and the total of IBNR included within the net incurred claims amounts.

	2018	2017	2016
	(in millions)		
Balances at January 1	$4,668	$4,563	$4,976
Less: Premium deficiency reserve	—	—	(176)
Less: Reinsurance recoverables	(70)	(76)	(85)
Balances at January 1, net	4,598	4,487	4,715
Incurred related to:			
Current year	46,385	44,001	45,318
Prior years	(503)	(483)	(582)
Total incurred	45,882	43,518	44,736
Paid related to:			
Current year	(41,736)	(39,496)	(40,852)
Prior years	(3,977)	(3,911)	(4,112)
Total paid	(45,713)	(43,407)	(44,964)
Reinsurance recoverable	95	70	76
Balances at December 31	$4,862	$4,668	$4,563

The following table summarizes the changes in estimate for incurred claims related to prior years attributable to our key assumptions. As previously described, our key assumptions consist of trend and completion factors estimated using an assumption of moderately adverse conditions. The amounts below represent the difference between our original estimates and the actual benefits expense ultimately incurred as determined from subsequent claim payments.

	Favorable Development by Changes in Key Assumptions					
	2018		2017		2016	
	Amount	Factor Change (a)	Amount	Factor Change (a)	Amount	Factor Change (a)
	(dollars in millions)					
Trend factors	$(229)	(3.3)%	$(279)	(2.7)%	$(316)	(2.9)%
Completion factors	(274)	(0.8)%	(204)	(0.7)%	(266)	(0.9)%
Total	$(503)		$(483)		$(582)	

(a) The factor change indicated represents the percentage point change.

As previously discussed, our reserving practice is to consistently recognize the actuarial best estimate of our ultimate liability for claims. Actuarial standards require the use of assumptions based on moderately adverse experience, which generally results in favorable reserve development, or reserves that are considered redundant. We experienced favorable medical claims reserve development related to prior fiscal years of $503 million in 2018, $483 million in 2017, and $582 million in 2016. The table below details our favorable medical claims reserve development related to prior fiscal years by segment for 2018, 2017, and 2016.

	Favorable Medical Claims Reserve Development			Change	
	2018	2017	2016	2018	2017
	(in millions)				
Retail Segment	$(398)	$(386)	$(429)	$(12)	$ 43
Group and Specialty Segment	(46)	(40)	(46)	(6)	6
Individual Commercial Segment	(57)	(56)	(106)	(1)	50
Other Businesses	(2)	(1)	(1)	(1)	—
Total	$(503)	$(483)	$(582)	$(20)	$ 99

The favorable medical claims reserve development for 2018, 2017, and 2016 primarily reflects the consistent application of trend and completion factors estimated using an assumption of moderately adverse conditions. Our favorable development for each of the years presented above is discussed further in Note 10 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data.

We continually adjust our historical trend and completion factor experience with our knowledge of recent events that may impact current trends and completion factors when establishing our reserves. Because our reserving practice is to consistently recognize the actuarial best point estimate using an assumption of moderately adverse conditions as required by actuarial standards, there is a reasonable possibility that variances between actual trend and completion factors and those assumed in our December 31, 2018 estimates would fall towards the middle of the ranges previously presented in our sensitivity table.

Benefits expense excluded from the previous table was as follows for the years ended December 31, 2018, 2017 and 2016:

	2018	2017	2016
	(in millions)		
Premium deficiency reserve for short-duration policies	$—	$—	$(176)
Military services	—	—	8
Future policy benefits	—	(22)	439
Total	$—	$(22)	$271

In 2016, we increased our existing premium deficiency reserve, initially recorded in 2015, for our individual commercial medical business compliant with the Health Care Reform Law associated with the 2016 coverage year. The higher benefits expense associated with future policy benefits payable during 2016 primarily relates to reserve strengthening for our closed block of long-term care insurance policies, which were sold in 2018, as more fully described below and in Note 18 to the consolidated financial statements included in Item 8. – Financial Statements and Supplementary Data.

Revenue Recognition

We generally establish one-year commercial membership contracts with employer groups, subject to cancellation by the employer group on 30-day written notice. Our Medicare contracts with CMS renew annually. Our military services contracts with the federal government and certain contracts with various state Medicaid programs generally are multi-year contracts subject to annual renewal provisions.

We receive monthly premiums from the federal government and various states according to government specified payment rates and various contractual terms. We bill and collect premium from employer groups and members in our Medicare and other individual products monthly. Changes in premium revenues resulting from the periodic changes in risk-adjustment scores derived from medical diagnoses for our membership are estimated by projecting the ultimate annual premium and recognized ratably during the year with adjustments each period to reflect changes in the ultimate premium.

Premiums revenue is estimated by multiplying the membership covered under the various contracts by the contractual rates. Premiums revenue is recognized as income in the period members are entitled to receive services, and is net of estimated uncollectible amounts, retroactive membership adjustments, and adjustments to recognize rebates under the minimum benefit ratios required under the Health Care Reform Law. We estimate policyholder rebates by projecting calendar year minimum benefit ratios for the small group and large group markets, as defined by the Health Care Reform Law using a methodology prescribed by HHS, separately by state and legal entity. Medicare Advantage products are also subject to minimum benefit ratio requirements under the Health Care Reform Law. Estimated calendar year rebates recognized ratably during the year are revised each period to reflect current experience. Retroactive membership adjustments result from enrollment changes not yet processed, or not yet reported by an employer group or the government. We routinely monitor the collectibility of specific accounts, the aging of receivables, historical retroactivity trends, estimated rebates, as well as prevailing and anticipated economic conditions, and reflect any required adjustments in current operations. Premiums received prior to the service period are recorded as unearned revenues.

Medicare Risk-Adjustment Provisions

CMS utilizes a risk-adjustment model which apportions premiums paid to Medicare Advantage, or MA, plans according to health severity. The risk-adjustment model, which CMS implemented pursuant to the Balanced Budget Act of 1997(BBA) and the Benefits Improvement and Protection Act of 2000 (BIPA), generally pays more for enrollees with predictably higher costs. Under the risk-adjustment methodology, all MA plans must collect and submit the necessary diagnosis code information from hospital inpatient, hospital outpatient, and physician providers to CMS within prescribed deadlines. The CMS risk-adjustment model uses this diagnosis data to calculate the risk-adjusted premium payment to MA plans. Rates paid to MA plans are established under an actuarial bid model, including a process that bases our payments on a comparison of our beneficiaries' risk scores, derived from medical diagnoses, to those

enrolled in the government's Medicare FFS program. We generally rely on providers, including certain providers in our network who are our employees, to code their claim submissions with appropriate diagnoses, which we send to CMS as the basis for our payment received from CMS under the actuarial risk-adjustment model. We also rely on providers to appropriately document all medical data, including the diagnosis data submitted with claims. CMS is phasing-in the process of calculating risk scores using diagnoses data from the Risk Adjustment Processing System, or RAPS, to diagnoses data from the Encounter Data System, or EDS. The RAPS process requires MA plans to apply a filter logic based on CMS guidelines and only submit diagnoses that satisfy those guidelines. For submissions through EDS, CMS requires MA plans to submit all the encounter data and CMS will apply the risk adjustment filtering logic to determine the risk scores. For 2018, 15% of the risk score was calculated from claims data submitted through EDS. In 2019 and 2020 CMS will increase that percentage to 25% and 50%, respectively. The phase-in from RAPS to EDS could result in different risk scores from each dataset as a result of plan processing issues, CMS processing issues, or filtering logic differences between RAPS and EDS, and could have a material adverse effect on our results of operations, financial position, or cash flows. We estimate risk-adjustment revenues based on medical diagnoses for our membership. The risk-adjustment model, including CMS changes to the submission process, is more fully described in Item 1. – Business under the section titled "Individual Medicare," and in Item 1A. - Risk Factors.

Investment Securities

Investment securities totaled $10.4 billion, or 41% of total assets at December 31, 2018, and $12.3 billion, or 45% of total assets at December 31, 2017. Debt securities, detailed below, comprised this entire investment portfolio at December 31, 2018 and 2017. The fair value of debt securities were as follows at December 31, 2018 and 2017:

	12/31/2018	Percentage of Total		12/31/2017	Percentage of Total	
	(dollars in millions)					
U.S. Treasury and other U.S. government corporations and agencies:						
U.S. Treasury and agency obligations	$417	4.0	%	$ 531	4.3	%
Mortgage-backed securities	2,544	24.4	%	1,610	13.1	%
Tax-exempt municipal securities	2,771	26.5	%	3,889	31.6	%
Mortgage-backed securities:						
Residential	55	0.5	%	26	0.2	%
Commercial	523	5.0	%	456	3.7	%
Asset-backed securities	985	9.4	%	408	3.3	%
Corporate debt securities	3,142	30.2	%	5,382	43.8	%
Total debt securities	$10,437	100.0	%	$ 12,302	100.0	%

Approximately 97% of our debt securities were investment-grade quality, with a weighted average credit rating of AA by S&P at December 31, 2018. Most of the debt securities that were below investment-grade were rated BB, the higher end of the below investment-grade rating scale. Our investment policy limits investments in a single issuer and requires diversification among various asset types.

Tax-exempt municipal securities included pre-refunded bonds of $118 million at December 31, 2018 and $222 million at December 31, 2017. These pre-refunded bonds were secured by an escrow fund consisting of U.S. government obligations sufficient to pay off all amounts outstanding at maturity. The ratings of these pre-refunded bonds generally assume the rating of the government obligations at the time the fund is established. Tax-exempt municipal securities that were not pre-refunded were diversified among general obligation bonds of U.S. states and local municipalities as well as special revenue bonds. General obligation bonds, which are backed by the taxing power and full faith of the issuer, accounted for $1.4 billion of these municipals in the portfolio. Special revenue bonds, issued by a municipality to finance a specific public works project such as utilities, water and sewer, transportation, or education, and supported by the revenues of that project, accounted for $1.3 billion of these municipals. Our general obligation bonds are diversified across the U.S. with no individual state exceeding 9%.

Gross unrealized losses and fair values aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position were as follows at December 31, 2018:

	Less than 12 months		12 months or more		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
	(in millions)					
December 31, 2018						
U.S. Treasury and other U.S. government corporations and agencies:						
U.S. Treasury and agency obligations	$179	$ (1)	$153	$ (2)	$332	$ (3)
Mortgage-backed securities	956	(16)	1,019	(38)	1,975	(54)
Tax-exempt municipal securities	809	(9)	1,648	(28)	2,457	(37)
Mortgage-backed securities:						
Residential	—	—	15	—	15	—
Commercial	372	(8)	133	(6)	505	(14)
Asset-backed securities	824	(7)	40	—	864	(7)
Corporate debt securities	1,434	(35)	1,439	(63)	2,873	(98)
Total debt securities	$4,574	$ (76)	$4,447	$ (137)	$9,021	$ (213)

Under the other-than-temporary impairment model for debt securities held, we recognize an impairment loss in income in an amount equal to the full difference between the amortized cost basis and the fair value when we have the intent to sell the debt security or it is more likely than not we will be required to sell the debt security before recovery of our amortized cost basis. However, if we do not intend to sell the debt security, we evaluate the expected cash flows to be received as compared to amortized cost and determine if a credit loss has occurred. In the event of a credit loss, only the amount of the impairment associated with the credit loss is recognized currently in income with the remainder of the loss recognized in other comprehensive income.

When we do not intend to sell a security in an unrealized loss position, potential other-than-temporary impairment is considered using a variety of factors, including the length of time and extent to which the fair value has been less than cost; adverse conditions specifically related to the industry, geographic area or financial condition of the issuer or underlying collateral of a security; payment structure of the security; changes in credit rating of the security by the rating agencies; the volatility of the fair value changes; and changes in fair value of the security after the balance sheet date. For debt securities, we take into account expectations of relevant market and economic data. For example, with respect to mortgage and asset-backed securities, such data includes underlying loan level data and structural features such as seniority and other forms of credit enhancements. A decline in fair value is considered other-than-temporary when we do not expect to recover the entire amortized cost basis of the security. We estimate the amount of the credit loss component of a debt security as the difference between the amortized cost and the present value of the expected cash flows of the security. The present value is determined using the best estimate of future cash flows discounted at the implicit interest rate at the date of purchase. The risks inherent in assessing the impairment of an investment include the risk that market factors may differ from our expectations, facts and circumstances factored into our assessment may change with the passage of time, or we may decide to subsequently sell the investment. The determination of whether a decline in the value of an investment is other than temporary requires us to exercise significant diligence and judgment. The discovery of new information and the passage of time can significantly change these judgments. The status of the general economic environment and significant changes in the national securities markets influence the determination of fair value and the assessment of investment impairment. There is a continuing risk that declines in fair value may occur and additional material realized losses from sales or other-than-temporary impairments may be recorded in future periods.

All issuers of securities we own that were trading at an unrealized loss at December 31, 2018 remain current on all contractual payments. After taking into account these and other factors previously described, we believe these unrealized losses primarily were caused by an increase in market interest rates in the current markets since the time the securities were purchased. At December 31, 2018, we did not intend to sell the securities with an unrealized loss position in accumulated other comprehensive income, and it is not likely that we will be required to sell these securities before recovery of their amortized cost basis. As a result, we believe that the securities with an unrealized loss were not other-than-temporarily impaired at December 31, 2018. There were no material other-than-temporary impairments in 2018, 2017, or 2016.

Goodwill and Long-lived Assets

At December 31, 2018, goodwill and other long-lived assets represented 23% of total assets and 58% of total stockholders' equity, compared to 19% and 52%, respectively, at December 31, 2017 with the increase due to our 2018 acquisitions.

We are required to test at least annually for impairment at a level of reporting referred to as the reporting unit, and more frequently if adverse events or changes in circumstances indicate that the asset may be impaired. A reporting unit either is our operating segments or one level below the operating segments, referred to as a component, which comprise our reportable segments. A component is considered a reporting unit if the component constitutes a business for which discrete financial information is available that is regularly reviewed by management. We are required to aggregate the components of an operating segment into one reporting unit if they have similar economic characteristics. Goodwill is assigned to the reporting unit that is expected to benefit from a specific acquisition.

We use the one-step process to review goodwill for impairment to determine both the existence and amount of goodwill impairment, if any. Our strategy, long-range business plan, and annual planning process support our goodwill impairment tests. These tests are performed, at a minimum, annually in the fourth quarter, and are based on an evaluation of future discounted cash flows. We rely on this discounted cash flow analysis to determine fair value. However outcomes from the discounted cash flow analysis are compared to other market approach valuation methodologies for reasonableness. We use discount rates that correspond to a market-based weighted-average cost of capital and terminal growth rates that correspond to long-term growth prospects, consistent with the long-term inflation rate. Key assumptions in our cash flow projections, including changes in membership, premium yields, medical and operating cost trends, and certain government contract extensions, are consistent with those utilized in our long-range business plan and annual planning process. If these assumptions differ from actual, including the impact of the Health Care Reform Law or changes in Government rates, the estimates underlying our goodwill impairment tests could be adversely affected. Goodwill impairment tests completed in each of the last three years did not result in an impairment loss. The fair value of our reporting units with significant goodwill exceeded carrying amounts by a substantial margin. A 100 basis point increase in the discount rate would not have a significant impact on the amount of margin for any of our reporting units with significant goodwill, with the exception of our clinical and provider reporting units in our Healthcare Services segment. The margin on the clinical reporting unit would decline to less than 10% after factoring in a 100 basis point increase in the discount rate. The provider reporting unit, while not falling beneath this threshold, was closer than any of our other reporting units. The clinical and provider reporting units account for $524 million and $730 million, respectively, of goodwill.

Long-lived assets consist of property and equipment and other finite-lived intangible assets. These assets are depreciated or amortized over their estimated useful life, and are subject to impairment reviews. We periodically review long-lived assets whenever adverse events or changes in circumstances indicate the carrying value of the asset may not be recoverable. In assessing recoverability, we must make assumptions regarding estimated future cash flows and other factors to determine if an impairment loss may exist, and, if so, estimate fair value. We also must estimate and make assumptions regarding the useful life we assign to our long-lived assets. If these estimates or their related assumptions change in the future, we may be required to record impairment losses or change the useful life, including accelerating depreciation or amortization for these assets. There were no material impairment losses in the last three years.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our earnings and financial position are exposed to financial market risk, including those resulting from changes in interest rates.

The level of our pretax earnings is subject to market risk due to changes in interest rates and the resulting impact on investment income and interest expense. In the past we have, and in the future we may enter into interest rate swap agreements depending on market conditions and other factors. Amounts borrowed under the revolving credit portion of our $2.0 billion unsecured revolving credit agreement bear interest at either LIBOR plus a spread or the base rate plus a spread. There were no borrowings outstanding under our credit agreement at December 31, 2018 or December 31, 2017.

Interest rate risk also represents a market risk factor affecting our consolidated financial position due to our significant investment portfolio, consisting primarily of fixed maturity securities of investment-grade quality with a weighted average S&P credit rating of AA at December 31, 2018. Our net unrealized position decreased $402 million from a net unrealized gain position of $198 million at December 31, 2017 to a net unrealized loss position of $204 million at December 31, 2018. At December 31, 2018, we had gross unrealized losses of $213 million on our investment portfolio primarily due to an increase in market interest rates since the time the securities were purchased. There were no material other-than-temporary impairments during 2018. While we believe that these impairments are temporary and we currently do not have the intent to sell such securities, given the current market conditions and the significant judgments involved, there is a continuing risk that future declines in fair value may occur and material realized losses from sales or other-than-temporary impairments may be recorded in future periods.

Duration is the time-weighted average of the present value of the bond portfolio’s cash flow. Duration is indicative of the relationship between changes in fair value and changes in interest rates, providing a general indication of the sensitivity of the fair values of our fixed maturity securities to changes in interest rates. However, actual fair values may differ significantly from estimates based on duration. The average duration of our investment portfolio, including cash and cash equivalents, was approximately 2.9 years as of December 31, 2018 and 4.1 years as of December 31, 2017. Based on the duration including cash equivalents, a 1% increase in interest rates would generally decrease the fair value of our securities by approximately $365 million.

We have also evaluated the impact on our investment income and interest expense resulting from a hypothetical change in interest rates of 100, 200, and 300 basis points over the next twelve-month period, as reflected in the following table. The evaluation was based on our investment portfolio and our outstanding indebtedness at December 31, 2018 and 2017. Our investment portfolio consists of cash, cash equivalents, and investment securities. The modeling technique used to calculate the pro forma net change in pretax earnings considered the cash flows related to fixed income investments and debt, which are subject to interest rate changes during a prospective twelve-month period. This evaluation measures parallel shifts in interest rates and may not account for certain unpredictable events that may affect interest income, including unexpected changes of cash flows into and out of the portfolio, changes in the asset allocation, including shifts between taxable and tax-exempt securities, and spread changes specific to various investment categories. In the past ten years, changes in 3 month LIBOR rates during the year have not exceeded 300 basis points, have not changed between 200 and 300 basis points, have changed between 100 and 200 basis points twice, and have changed by less than 100 basis points eight times.

	Increase (decrease) in pretax earnings given an interest rate decrease of X basis points			Increase (decrease) in pretax earnings given an interest rate increase of X basis points		
	(300)	(200)	(100)	100	200	300
	(in millions)					
As of December 31, 2018						
Investment income (a)	$(154)	$(114)	$(57)	$58	$116	$175
Interest expense (b)	31	20	10	(10)	(20)	(31)
Pretax	$(123)	$(94)	$(47)	$48	$96	$144
As of December 31, 2017						
Investment income (a)	$(87)	$(83)	$(67)	$67	$134	$202
Interest expense (b)	2	2	2	(2)	(3)	(5)
Pretax	$(85)	$(81)	$(65)	$65	$131	$197

(a) As of December 31, 2018 and 2017, some of our investments had interest rates below 3% so the assumed hypothetical change in pretax earnings does not reflect the full 3% point reduction.

(b) The interest rate under our senior notes is fixed. There were no borrowings outstanding under the credit agreement at December 31, 2018 or December 31, 2017. There was $645 million and $150 million outstanding under our commercial paper program at December 31, 2018 and 2017, respectively. As of December 31, 2017, our interest rate under our commercial paper program was less than 2% so the assumed hypothetical change in pretax earnings does not reflect the full 2% point reduction.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Humana Inc.

CONSOLIDATED BALANCE SHEETS

	December 31,	
	2018	2017
	(in millions, except share amounts)	
ASSETS		
Current assets:		
Cash and cash equivalents	$2,343	$4,042
Investment securities	10,026	9,557
Receivables, less allowance for doubtful accounts of $79 in 2018 and $96 in 2017	1,015	854
Other current assets	3,564	2,949
Total current assets	16,948	17,402
Property and equipment, net	1,735	1,584
Long-term investment securities	411	2,745
Equity method investment in Kindred at Home	1,047	—
Goodwill	3,897	3,281
Other long-term assets	1,375	2,166
Total assets	$25,413	$27,178
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Benefits payable	$4,862	$4,668
Trade accounts payable and accrued expenses	3,067	4,069
Book overdraft	171	141
Unearned revenues	283	378
Short-term debt	1,694	150
Total current liabilities	10,077	9,406
Long-term debt	4,375	4,770
Future policy benefits payable	219	2,923
Other long-term liabilities	581	237
Total liabilities	15,252	17,336
Commitments and contingencies (Note 16)		
Stockholders' equity:		
Preferred stock, $1 par; 10,000,000 shares authorized; none issued	—	—
Common stock, $0.16 2/3 par; 300,000,000 shares authorized; 198,594,841 shares issued at December 31, 2018 and 198,572,458 shares issued at December 31, 2017	33	33