



Athene Holding Ltd.
4Q'19 Financial Supplement

FINANCIAL RESULTS

Financial Highlights	3
Condensed Consolidated Statements of Income (GAAP view)	4
Segment Results of Operations (Management view)	5
Reconciliation of Earnings Measures	6
Retirement Services Segment Highlights	7
Condensed Consolidated Balance Sheets	8

ASSETS

Investments (GAAP view)	10
Net Invested Assets (Management view)	11
Investment Funds (GAAP view)	12
Net Alternative Investments (Management view)	13
Funds Withheld at Interest (GAAP view)	14
Net Investment Earned Rates	15
Credit Quality of Securities & Net Invested Assets	17

LIABILITIES

Net Reserve Liabilities & Rollforwards	20
Deferred Annuity Liability Characteristics	22

CAPITAL

Capitalization & Regulatory Capital Ratios	23
Financial Strength, Credit Ratings & Share Data	24

ADDITIONAL INFORMATION

Notes to the Financial Supplement	25
Non-GAAP Reconciliations	27

Financial Highlights

Unaudited (in millions, except percentages and per share data)



	Quarterly Trends					Δ		Year-to-Date		Δ
	4Q'18	1Q'19	2Q'19	3Q'19	4Q'19	Q/Q	Y/Y	2018	2019	Y/Y
SELECTED INCOME STATEMENT DATA										
Net income (loss) available to AHL common shareholders	\$ (104)	\$ 708	\$ 720	\$ 276	\$ 432	57 %	NM	\$ 1,053	\$ 2,136	103 %
Adjusted operating income available to common shareholders	240	287	370	243	389	60 %	62 %	1,140	1,289	13 %
FINANCIAL RATIOS										
Return on assets (ROA)	(0.34)%	2.19%	2.12%	0.78%	1.19%	41bps	NM	0.95%	1.55%	60bps
Adjusted operating ROA	0.88 %	1.02%	1.28%	0.82%	1.34%	52bps	46bps	1.22%	1.11 %	(11)bps
Net investment spread ⊖ Retirement Services	1.43 %	1.36%	1.68%	1.13%	1.84%	71bps	41bps	1.70%	1.50%	(20)bps
Return on equity (ROE)	(4.8)%	30.8%	25.6%	8.5%	12.8%	NM	NM	12.1%	19.7%	NM
Adjusted operating ROE	10.8 %	12.8%	16.2%	10.6%	16.7%	NM	NM	13.9%	14.1%	20bps
Adjusted operating ROE ⊖ Retirement Services	16.0 %	14.4%	18.9%	13.5%	21.6%	NM	NM	18.4%	17.3%	NM
EARNINGS AND BOOK VALUE PER COMMON SHARE										
Earnings per common share ⊖ basic ¹	\$ (0.53)	\$ 3.65	\$ 3.76	\$ 1.50	\$ 2.43	62 %	NM	\$ 5.34	\$ 11.44	114 %
Earnings per common share ⊖ diluted class A ²	(0.53)	3.64	3.75	1.50	2.42	61 %	NM	5.32	11.41	114 %
Adjusted operating earnings per common share ³	1.23	1.50	1.95	1.34	2.21	65 %	80 %	5.82	6.97	20 %
Book value per common share	42.45	52.12	66.69	74.20	76.21	3 %	80 %	42.45	76.21	80 %
Adjusted book value per common share ³	45.59	47.30	49.50	50.74	54.02	6 %	18 %	45.59	54.02	18 %
SELECTED BALANCE SHEET DATA										
Total assets	\$ 125,505	\$ 132,857	\$ 138,980	\$ 144,202	\$ 146,875	2 %	17 %	\$ 125,505	\$ 146,875	17 %
Gross invested assets	111,034	113,771	116,671	121,140	124,563	3 %	12 %	111,034	124,563	12 %
Invested assets ⊖ ACRA noncontrolling interests	—	—	—	—	(7,077)	NM	NM	—	(7,077)	NM
Net invested assets	111,034	113,771	116,671	121,140	117,486	(3)%	6 %	111,034	117,486	6 %
Total liabilities	117,229	122,740	126,615	130,657	132,734	2 %	13 %	117,229	132,734	13 %
Net reserve liabilities	107,732	111,791	114,680	118,825	114,652	(4)%	6 %	107,732	114,652	6 %
Debt	991	991	991	992	1,467	48 %	48 %	991	1,467	48 %
Total AHL shareholders' equity	8,276	10,117	12,365	13,545	13,391	(1)%	62 %	8,276	13,391	62 %
Adjusted AHL common shareholders' equity	8,823	9,102	9,127	9,204	9,445	3 %	7 %	8,823	9,445	7 %
DEPOSITS										
Retail	\$ 2,018	\$ 1,816	\$ 1,909	\$ 1,921	\$ 1,136	(41)%	(44)%	\$ 7,542	\$ 6,782	(10)%
Flow reinsurance	1,136	1,020	1,125	609	1,196	96 %	5 %	2,423	3,950	63 %
Funding agreements	225	—	299	503	499	(1)%	122 %	650	1,301	100 %
Pension risk transfer	1,785	1,923	706	2,604	809	(69)%	(55)%	2,581	6,042	134 %
Gross organic deposits	5,164	4,759	4,039	5,637	3,640	(35)%	(30)%	13,196	18,075	37 %
Gross inorganic deposits	7,878	—	—	—	—	NM	NM	26,982	—	NM
Gross deposits	13,042	4,759	4,039	5,637	3,640	(35)%	(72)%	40,178	18,075	(55)%
Deposits attributable to ACRA noncontrolling interest ⁴	—	—	—	—	(544)	NM	NM	—	(544)	NM
Net deposits	\$ 13,042	\$ 4,759	\$ 4,039	\$ 5,637	\$ 3,096	(45)%	(76)%	\$ 40,178	\$ 17,531	(56)%

Note: "NM" represents changes that are not meaningful. Please refer to Notes to the Financial Supplement section and the Non-GAAP Measure Reconciliations for discussion of non-GAAP metrics. 1 Basic earnings per common share, including basic weighted average common shares outstanding, includes all classes eligible to participate in dividends for each period presented. 2 Diluted earnings per common share on a GAAP basis for Class A common shares, including diluted Class A weighted average common shares outstanding, includes the dilutive impacts, if any, of Class B common shares, Class M common shares and any other stock-based awards. 3 Represents Class A common shares outstanding or weighted average common shares outstanding assuming conversion or settlement of all outstanding items that are able to be converted to or settled in Class A common shares, including the impacts of Class B common shares, Class M common shares and any other stock-based awards, but excluding any awards for which the exercise or conversion price exceeds the market value of our Class A common shares on the applicable measurement date. 4 Deposits attributable to ACRA noncontrolling interest in 4Q'19 were related to pension risk transfer activity. ACRA noncontrolling interest reserve liabilities at inception on October 1, 2019 were \$6.1 billion.

Condensed Consolidated Statements of Income (GAAP view)

Unaudited (in millions, except percentages)



	Quarterly Trends					Δ		Year-to-Date		Δ
	4Q'18	1Q'19	2Q'19	3Q'19	4Q'19	Q/Q	Y/Y	2018	2019	Y/Y
REVENUE										
Premiums	\$ 1,857	\$ 2,000	\$ 787	\$ 2,688	\$ 907	(66)%	(51)%	\$ 3,462	\$ 6,382	84 %
Product charges	128	125	132	135	132	(2)%	3 %	449	524	17 %
Net investment income	1,121	1,066	1,161	1,070	1,225	14 %	9 %	4,004	4,522	13 %
Investment related gains (losses)	(1,902)	1,772	1,316	688	976	42 %	NM	(1,324)	4,752	NM
Other-than-temporary impairment investment losses										
Other-than-temporary impairment losses	(14)	(2)	(7)	(34)	(1)	97 %	93 %	(24)	(44)	(83)%
Other-than-temporary impairment losses reclassified to (from) other comprehensive income	2	1	1	9	(5)	NM	NM	6	6	— %
Net other-than-temporary impairment losses	(12)	(1)	(6)	(25)	(6)	76 %	50 %	(18)	(38)	NM
Other revenues	4	12	9	6	10	67 %	150 %	26	37	42 %
Revenues related to consolidated variable interest entities										
Net investment income	17	16	21	20	17	(15)%	— %	56	74	32 %
Investment related gains (losses)	(35)	5	3	2	(5)	NM	86 %	(18)	5	NM
Total revenues	\$ 1,178	\$ 4,995	\$ 3,423	\$ 4,584	\$ 3,256	(29)%	176 %	\$ 6,637	\$ 16,258	145 %
BENEFITS AND EXPENSES										
Interest sensitive contract benefits	\$ (825)	\$ 1,516	\$ 1,094	\$ 801	\$ 1,146	43 %	NM	\$ 290	\$ 4,557	NM
Amortization of deferred sales inducements	(12)	5	13	20	36	80 %	NM	54	74	37 %
Future policy and other policy benefits	2,018	2,329	1,111	2,955	1,192	(60)%	(41)%	4,281	7,587	77 %
Amortization of deferred acquisition costs and value of business acquired	(33)	231	261	323	143	(56)%	NM	174	958	NM
Dividends to policyholders	5	9	9	12	6	(50)%	20 %	37	36	(3)%
Policy and other operating expenses	172	165	185	194	200	3 %	16 %	626	744	19 %
Total benefits and expenses	1,325	4,255	2,673	4,305	2,723	(37)%	106 %	5,462	13,956	156 %
Income (loss) before income taxes	(147)	740	750	279	533	91 %	NM	1,175	2,302	96 %
Income tax expense (benefit)	(43)	32	30	(14)	69	NM	NM	122	117	(4)%
Net income (loss)	(104)	708	720	293	464	58 %	NM	1,053	2,185	108 %
Less: Net income attributable to noncontrolling interests										
Net income (loss) attributable to Athene Holding Ltd. shareholders	(104)	708	720	293	451	54 %	NM	1,053	2,172	106 %
Less: Preferred stock dividends										
Net income (loss) available to Athene Holding Ltd. common shareholders	<u>\$ (104)</u>	<u>\$ 708</u>	<u>\$ 720</u>	<u>\$ 276</u>	<u>\$ 432</u>	57 %	NM	<u>\$ 1,053</u>	<u>\$ 2,136</u>	103 %

Segment Results of Operations (Management view)

Unaudited (in millions, except percentages and per share data)



	Quarterly Trends					Δ		Year-to-Date		Δ
	4Q'18	1Q'19	2Q'19	3Q'19	4Q'19	Q/Q	Y/Y	2018	2019	Y/Y
CONSOLIDATED										
Fixed income and other investment income	\$ 1,142	\$ 1,154	\$ 1,175	\$ 1,168	\$ 1,185	1 %	4 %	\$ 3,897	\$ 4,682	20 %
Alternative investment income	62	49	170	124	154	24 %	148 %	335	497	48 %
Net investment earnings	1,204	1,203	1,345	1,292	1,339	4 %	11 %	4,232	5,179	22 %
Cost of crediting	(516)	(535)	(547)	(576)	(521)	10 %	(1)%	(1,659)	(2,179)	(31)%
Other liability costs ¹	(332)	(260)	(295)	(358)	(259)	28 %	22 %	(981)	(1,172)	(19)%
Cost of funds	(848)	(795)	(842)	(934)	(780)	16 %	8 %	(2,640)	(3,351)	(27)%
Operating expenses	(82)	(82)	(87)	(79)	(86)	(9)%	(5)%	(303)	(334)	(10)%
Interest expense	(12)	(13)	(12)	(12)	(17)	(42)%	(42)%	(49)	(54)	(10)%
Management fees from ACRA	—	—	—	—	2	NM	NM	—	2	NM
Pre-tax adjusted operating income	262	313	404	267	458	72 %	75 %	1,240	1,442	16 %
Income tax expense (non-operating)	(22)	(26)	(34)	(7)	(50)	NM	NM	(100)	(117)	(17)%
Adjusted operating income	240	287	370	260	408	57 %	70 %	1,140	1,325	16 %
Preferred stock dividends	—	—	—	(17)	(19)	(12)%	NM	—	(36)	NM
Adjusted operating income available to common shareholders	<u>\$ 240</u>	<u>\$ 287</u>	<u>\$ 370</u>	<u>\$ 243</u>	<u>\$ 389</u>	60 %	62 %	<u>\$ 1,140</u>	<u>\$ 1,289</u>	13 %
Adjusted operating earnings per common share	\$ 1.23	\$ 1.50	\$ 1.95	\$ 1.34	\$ 2.21	65 %	80 %	\$ 5.82	\$ 6.97	20 %
RETIREMENT SERVICES										
Fixed income and other investment income	\$ 1,132	\$ 1,151	\$ 1,170	\$ 1,159	\$ 1,172	1 %	4 %	\$ 3,825	\$ 4,652	22 %
Alternative investment income	99	20	151	105	134	28 %	35 %	363	410	13 %
Net investment earnings	1,231	1,171	1,321	1,264	1,306	3 %	6 %	4,188	5,062	21 %
Cost of crediting	(516)	(535)	(547)	(576)	(521)	10 %	(1)%	(1,659)	(2,179)	(31)%
Other liability costs ¹	(332)	(260)	(295)	(358)	(259)	28 %	22 %	(981)	(1,172)	(19)%
Cost of funds	(848)	(795)	(842)	(934)	(780)	16 %	8 %	(2,640)	(3,351)	(27)%
Operating expenses	(65)	(62)	(68)	(67)	(69)	(3)%	(6)%	(242)	(266)	(10)%
Interest expense	—	(2)	(1)	—	(5)	NM	NM	(5)	(8)	(60)%
Management fees from ACRA	—	—	—	—	2	NM	NM	—	2	NM
Pre-tax adjusted operating income	318	312	410	263	454	73 %	43 %	1,301	1,439	11 %
Income tax expense (non-operating)	(22)	(26)	(34)	(7)	(50)	NM	NM	(100)	(117)	(17)%
Adjusted operating income available to common shareholders	<u>\$ 296</u>	<u>\$ 286</u>	<u>\$ 376</u>	<u>\$ 256</u>	<u>\$ 404</u>	58 %	36 %	<u>\$ 1,201</u>	<u>\$ 1,322</u>	10 %
CORPORATE & OTHER										
Fixed income and other investment income	\$ 10	\$ 3	\$ 5	\$ 9	\$ 13	44 %	30 %	\$ 72	\$ 30	(58)%
Alternative investment income	(37)	29	19	19	20	5 %	NM	(28)	87	NM
Net investment earnings	(27)	32	24	28	33	18 %	NM	44	117	166 %
Operating expenses	(17)	(20)	(19)	(12)	(17)	(42)%	— %	(61)	(68)	(11)%
Interest expense	(12)	(11)	(11)	(12)	(12)	— %	— %	(44)	(46)	(5)%
Adjusted operating income (loss)	(56)	1	(6)	4	4	— %	NM	(61)	3	NM
Preferred stock dividends	—	—	—	(17)	(19)	(12)%	NM	—	(36)	NM
Adjusted operating income (loss) available to common shareholders	<u>\$ (56)</u>	<u>\$ 1</u>	<u>\$ (6)</u>	<u>\$ (13)</u>	<u>\$ (15)</u>	(15)%	73 %	<u>\$ (61)</u>	<u>\$ (33)</u>	46 %

Note: Please refer to Notes to the Financial Supplement section and the Non-GAAP Measure Reconciliations for discussion on adjusted operating income available to common shareholders and adjusted operating earnings per common share. ¹ Other liability costs primarily includes DAC, DSI and VOBA amortization and rider reserve changes for all products, the cost of liabilities on products other than deferred annuities and institutional costs including offsets for premiums, product charges and other revenues.

Reconciliation of Earnings Measures

Unaudited (in millions, except percentages and per share data)



	Quarterly Trends					Δ		Year-to-Date		Δ
	4Q'18	1Q'19	2Q'19	3Q'19	4Q'19	Q/Q	Y/Y	2018	2019	Y/Y
RECONCILIATION OF NET INCOME (LOSS) AVAILABLE TO ATHENE HOLDING LTD. COMMON SHAREHOLDERS TO ADJUSTED OPERATING INCOME AVAILABLE TO COMMON SHAREHOLDERS										
Net income (loss) available to Athene Holding Ltd. common shareholders	\$ (104)	\$ 708	\$ 720	\$ 276	\$ 432	57 %	NM	\$ 1,053	\$ 2,136	103 %
Non-operating adjustments										
Realized gains (losses) on sale of AFS securities	(20)	12	41	46	26	(43)%	NM	13	125	NM
Unrealized, impairments and other investment gains (losses)	(40)	29	10	(31)	(12)	61 %	70 %	(18)	(4)	78 %
Change in fair value of reinsurance assets	(100)	616	570	314	(89)	NM	11 %	(402)	1,411	NM
Offsets to investment gains (losses)	46	(199)	(204)	(163)	28	NM	(39)%	133	(538)	NM
Investment gains (losses), net of offsets	(114)	458	417	166	(47)	NM	59 %	(274)	994	NM
Change in fair values of derivatives and embedded derivatives ☐ FIAs, net of offsets	(288)	(27)	(57)	(117)	136	NM	NM	242	(65)	NM
Integration, restructuring and other non-operating expenses	(4)	(1)	(11)	(34)	(24)	29 %	NM	(22)	(70)	NM
Stock compensation expense	(3)	(3)	(3)	(3)	(3)	— %	— %	(11)	(12)	(9)%
Income tax (expense) benefit ☐ non-operating	65	(6)	4	21	(19)	NM	NM	(22)	—	NM
Less: Total non-operating adjustments	(344)	421	350	33	43	30 %	NM	(87)	847	NM
Adjusted operating income available to common shareholders	<u>\$ 240</u>	<u>\$ 287</u>	<u>\$ 370</u>	<u>\$ 243</u>	<u>\$ 389</u>	60 %	62 %	<u>\$ 1,140</u>	<u>\$ 1,289</u>	13 %
RECONCILIATION OF BASIC EARNINGS (LOSS) PER CLASS A COMMON SHARES TO ADJUSTED OPERATING EARNINGS PER COMMON SHARE										
Basic earnings (loss) per share ☐ Class A common shares	\$ (0.53)	\$ 3.65	\$ 3.76	\$ 1.50	\$ 2.43	62 %	NM	\$ 5.34	\$ 11.44	114 %
Non-operating adjustments										
Realized gains (losses) on sale of AFS securities	(0.11)	0.06	0.21	0.25	0.15	(40)%	NM	0.06	0.68	NM
Unrealized, impairments and other investment gains (losses)	(0.20)	0.16	0.05	(0.17)	(0.07)	59 %	65 %	(0.09)	(0.02)	78 %
Change in fair value of reinsurance assets	(0.51)	3.20	3.01	1.72	(0.50)	NM	2 %	(2.05)	7.64	NM
Offsets to investment gains (losses)	0.23	(1.04)	(1.07)	(0.89)	0.16	NM	(30)%	0.68	(2.91)	NM
Investment gains (losses), net of offsets	(0.59)	2.38	2.20	0.91	(0.26)	NM	56 %	(1.40)	5.39	NM
Change in fair values of derivatives and embedded derivatives ☐ FIAs, net of offsets	(1.47)	(0.14)	(0.30)	(0.65)	0.77	NM	NM	1.24	(0.36)	NM
Integration, restructuring and other non-operating expenses	(0.02)	(0.01)	(0.06)	(0.18)	(0.13)	28 %	NM	(0.12)	(0.37)	NM
Stock compensation expense	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	— %	(100)%	(0.05)	(0.07)	(40)%
Income tax (expense) benefit ☐ non-operating	0.33	(0.03)	0.02	0.12	(0.11)	NM	NM	(0.11)	—	NM
Less: Total non-operating adjustments	(1.76)	2.19	1.84	0.18	0.25	39 %	NM	(0.44)	4.59	NM
Effect of items convertible to or settled in Class A common shares	—	(0.04)	(0.03)	(0.02)	(0.03)	(50)%	NM	(0.04)	(0.12)	NM
Adjusted operating earnings per common share ☐	<u>\$ 1.23</u>	<u>\$ 1.50</u>	<u>\$ 1.95</u>	<u>\$ 1.34</u>	<u>\$ 2.21</u>	65 %	80 %	<u>\$ 5.82</u>	<u>\$ 6.97</u>	20 %

Note: Please refer to Notes to the Financial Supplement section for discussion on adjusted operating income available to common shareholders.

Retirement Services Segment Highlights

Unaudited (in millions, except percentages)



	Quarterly Trends					Δ		Year-to-Date		Δ
	4Q'18	1Q'19	2Q'19	3Q'19	4Q'19	Q/Q	Y/Y	2018	2019	Y/Y
NET INVESTMENT SPREAD – RETIREMENT SERVICES										
Net investment earned rate	4.57%	4.21%	4.63%	4.31%	4.57%	26bps	0bps	4.60%	4.43%	(17)bps
Cost of crediting	1.91%	1.92%	1.92%	1.96%	1.83%	(13)bps	(8)bps	1.82%	1.91%	9bps
Other liability costs	1.23%	0.93%	1.03%	1.22%	0.90%	(32)bps	(33)bps	1.08%	1.02%	(6)bps
Cost of funds	3.14%	2.85%	2.95%	3.18%	2.73%	(45)bps	(41)bps	2.90%	2.93%	3bps
Net investment spread	1.43%	1.36%	1.68%	1.13%	1.84%	71bps	41bps	1.70%	1.50%	(20)bps
Average net invested assets	\$ 107,939	\$ 111,443	\$ 114,059	\$ 117,338	\$ 114,149	(3)%	6 %	\$ 90,995	\$ 114,310	26 %
COST OF CREDITING – RETIREMENT SERVICES										
FIA option costs	\$ 261	\$ 265	\$ 265	\$ 265	\$ 252	(5)%	(3)%	\$ 837	\$ 1,047	25 %
Fixed interest credited to policyholders	182	179	183	188	177	(6)%	(3)%	594	727	22 %
Cost of crediting on deferred annuities	443	444	448	453	429	(5)%	(3)%	1,431	1,774	24 %
Average account value on deferred annuities	88,874	89,809	90,675	91,467	87,660	(4)%	(1)%	73,567	89,878	22 %
Cost of crediting on deferred annuities rate	2.00%	1.98%	1.98%	1.98%	1.95%	(3)bps	(5)bps	1.95%	1.97%	2bps
Cost of crediting on institutional products	\$ 73	\$ 91	\$ 99	\$ 123	\$ 92	(25)%	26 %	\$ 228	\$ 405	78 %
Average institutional reserve liabilities	7,827	9,809	10,470	13,320	12,931	(3)%	65 %	6,683	11,632	74 %
Cost of crediting on institutional products rate	3.74%	3.69%	3.76%	3.68%	2.85%	(83)bps	(89)bps	3.42%	3.47%	5bps
Cost of crediting	\$ 516	\$ 535	\$ 547	\$ 576	\$ 521	(10)%	1 %	\$ 1,659	\$ 2,179	31 %
OTHER LIABILITY COSTS – RETIREMENT SERVICES										
Change in rider reserve	\$ 173	\$ 154	\$ 138	\$ 114	\$ 124	9 %	(28)%	\$ 615	\$ 530	(14)%
DAC, DSI and VOBA amortization	130	91	125	226	131	(42)%	1 %	272	573	111 %
Other ¹	29	15	32	18	4	(78)%	(86)%	94	69	(27)%
Other liability costs	\$ 332	\$ 260	\$ 295	\$ 358	\$ 259	(28)%	(22)%	\$ 981	\$ 1,172	19 %
INVESTMENT MARGIN ON DEFERRED ANNUITIES – RETIREMENT SERVICES										
Net investment earned rate	4.57%	4.21%	4.63%	4.31%	4.57%	26bps	0bps	4.60%	4.43%	(17)bps
Cost of crediting on deferred annuities	2.00%	1.98%	1.98%	1.98%	1.95%	(3)bps	(5)bps	1.95%	1.97%	2bps
Investment margin on deferred annuities	2.57%	2.23%	2.65%	2.33%	2.62%	29bps	5bps	2.65%	2.46%	(19)bps

Note: Please refer to Notes to the Financial Supplement section and the Non-GAAP Reconciliations for discussion on net investment spread, investment margin on deferred annuities, net investment earned rate, cost of crediting on deferred annuities and other liability costs.
¹ Other primarily includes payout annuities, policy maintenance costs, reinsurance expense allowances, excise taxes and non-deferred acquisition costs, net of product charges.

Condensed Consolidated Balance Sheets

Unaudited (in millions, except percentages)



	December 31, 2018	December 31, 2019	Δ
ASSETS			
Investments			
Available-for-sale securities, at fair value	\$ 59,265	\$ 71,374	20 %
Trading securities, at fair value	1,949	2,054	5 %
Equity securities, at fair value	216	247	14 %
Mortgage loans, net of allowances	10,340	14,306	38 %
Investment funds	703	731	4 %
Policy loans	488	417	(15)%
Funds withheld at interest	15,023	15,181	1 %
Derivative assets	1,043	2,888	177 %
Short-term investments	191	596	212 %
Other investments	122	158	30 %
Total investments	89,340	107,952	21 %
Cash and cash equivalents	2,911	4,237	46 %
Restricted cash	492	402	(18)%
Investments in related parties			
Available-for-sale securities, at fair value	1,437	3,804	165 %
Trading securities, at fair value	249	785	215 %
Equity securities, at fair value	120	58	(52)%
Mortgage loans	291	653	124 %
Investment funds	2,232	2,886	29 %
Funds withheld at interest	13,577	13,220	(3)%
Other investments	386	487	26 %
Accrued investment income	682	807	18 %
Reinsurance recoverable	5,534	4,863	(12)%
Deferred acquisition costs, deferred sales inducements and value of business acquired	5,907	5,008	(15)%
Other assets	1,635	985	(40)%
Assets of consolidated variable interest entities			
Investments			
Trading securities, at fair value	35	16	(54)%
Equity securities, at fair value – related party	50	6	(88)%
Investment funds	624	683	9 %
Cash and cash equivalents	2	3	50 %
Other assets	1	20	NM
Total assets	\$ 125,505	\$ 146,875	17 %

Condensed Consolidated Balance Sheets, continued

Unaudited (in millions, except percentages)



	December 31, 2018	December 31, 2019	Δ
LIABILITIES			
Interest sensitive contract liabilities	\$ 96,610	\$ 102,745	6 %
Future policy benefits	16,704	23,330	40 %
Other policy claims and benefits	142	138	(3)%
Dividends payable to policyholders	118	113	(4)%
Short-term debt	—	475	NM
Long-term debt	991	992	— %
Derivative liabilities	85	97	14 %
Payables for collateral on derivatives and securities to repurchase	969	3,255	236 %
Funds withheld liability	721	408	(43)%
Other liabilities	889	1,181	33 %
Total liabilities	117,229	132,734	13 %
EQUITY			
Preferred stock	—	—	NM
Common stock	—	—	NM
Additional paid-in-capital	3,462	4,171	20 %
Retained earnings	5,286	6,939	31 %
Accumulated other comprehensive income (loss)	(472)	2,281	NM
Total Athene Holding Ltd. shareholders' equity	8,276	13,391	62 %
Noncontrolling interests	—	750	NM
Total equity	8,276	14,141	71 %
Total liabilities and equity	\$ 125,505	\$ 146,875	17 %

Investments (GAAP view)

Unaudited (in millions, except percentages)



	December 31, 2018		December 31, 2019	
	Carrying Value	Percent of Total	Carrying Value	Percent of Total
INVESTMENTS AND INVESTMENTS IN RELATED PARTIES SUMMARY				
Investments				
Available-for-sale securities, at fair value				
U.S. government and agencies	\$ 57	0.1%	\$ 36	—%
U.S. state, municipal and political subdivisions	1,293	1.2%	1,541	1.2%
Foreign governments	161	0.1%	327	0.3%
Corporate	37,097	34.4%	47,228	36.4%
CLO	5,361	5.0%	7,349	5.7%
ABS	4,920	4.6%	5,118	3.9%
CMBS	2,357	2.2%	2,400	1.8%
RMBS	8,019	7.5%	7,375	5.7%
Total available-for-sale securities, at fair value	59,265	55.1%	71,374	55.0%
Trading securities, at fair value	1,949	1.8%	2,054	1.6%
Equity securities, at fair value	216	0.2%	247	0.2%
Mortgage loans, net of allowances	10,340	9.6%	14,306	11.0%
Investment funds	703	0.6%	731	0.6%
Policy loans	488	0.4%	417	0.3%
Funds withheld at interest	15,023	14.0%	15,181	11.7%
Derivative assets	1,043	1.0%	2,888	2.2%
Short-term investments	191	0.2%	596	0.5%
Other investments	122	0.1%	158	0.1%
Total investments	89,340	83.0%	107,952	83.2%
Investments in related parties				
Available-for-sale securities, at fair value				
Corporate	—	—%	19	—%
CLO	562	0.5%	936	0.7%
ABS	875	0.8%	2,849	2.2%
Total available-for-sale securities, at fair value	1,437	1.3%	3,804	2.9%
Trading securities, at fair value	249	0.2%	785	0.6%
Equity securities, at fair value	120	0.1%	58	—%
Mortgage loans	291	0.3%	653	0.5%
Investment funds	2,232	2.1%	2,886	2.2%
Funds withheld at interest	13,577	12.6%	13,220	10.2%
Other investments	386	0.4%	487	0.4%
Total investments in related parties	18,292	17.0%	21,893	16.8%
Total investments including related parties	\$ 107,632	100.0%	\$ 129,845	100.0%

Net Invested Assets (Management view)

Unaudited (in millions, except percentages)



	December 31, 2018		December 31, 2019	
	Invested Asset Value ¹	Percent of Total	Invested Asset Value ¹	Percent of Total
NET INVESTED ASSETS				
Corporate	\$ 55,772	50.2%	\$ 55,077	46.9 %
CLO	8,275	7.5%	10,223	8.7 %
Credit	64,047	57.7%	65,300	55.6 %
RMBS	9,814	8.9%	8,394	7.1 %
Mortgage loans	14,423	13.0%	18,528	15.8 %
CMBS	3,018	2.7%	2,930	2.5 %
Real estate	27,255	24.6%	29,852	25.4 %
ABS	7,706	6.9%	10,317	8.8 %
Alternative investments	4,492	4.1%	5,586	4.8 %
State, municipal, political subdivisions and foreign government	2,122	1.9%	2,260	1.9 %
Equity securities	467	0.4%	365	0.3 %
Short-term investments	765	0.7%	624	0.5 %
U.S. government and agencies	134	0.1%	49	0.0 %
Other investments	15,686	14.1%	19,201	16.3 %
Cash and equivalents	2,881	2.6%	1,958	1.7 %
Policy loans and other	1,165	1.0%	1,175	1.0 %
Net invested assets	\$ 111,034	100.0%	\$ 117,486	100.0 %

¹ Net invested assets includes our economic ownership of ACRA investments but does not include the investments associated with the noncontrolling interest. Please refer to Notes to the Financial Supplement for discussion on net invested assets including net alternative investments and Non-GAAP Measure Reconciliations for the reconciliation of investments including related parties to net invested assets.

Investment Funds (GAAP view)

Unaudited (in millions, except percentages)



	December 31, 2018		December 31, 2019	
	Carrying Value	Percent of Total	Carrying Value	Percent of Total
INVESTMENT FUNDS INCLUDING RELATED PARTIES¹				
Investment funds				
Real estate	\$ 215	6.0%	\$ 277	6.4%
Credit funds	172	4.8%	153	3.6%
Private equity	253	7.1%	236	5.5%
Real assets	56	1.6%	64	1.5%
Natural resources	4	0.1%	1	—%
Other	3	0.1%	—	—%
Total investment funds	703	19.7%	731	17.0%
Investment funds – related parties				
Differentiated investments				
AmeriHome	463	13.0%	487	11.3%
Catalina	233	6.5%	271	6.3%
Athora	105	3.0%	132	3.1%
Venerable	92	2.6%	99	2.3%
Other	196	5.5%	222	5.2%
Total differentiated investments	1,089	30.6%	1,211	28.2%
Real estate	497	14.0%	736	17.1%
Credit funds	316	8.9%	370	8.6%
Private equity	18	0.5%	105	2.4%
Real assets	145	4.1%	182	4.2%
Natural resources	104	2.9%	163	3.8%
Public equities	63	1.8%	119	2.8%
Total investment funds – related parties	2,232	62.8%	2,886	67.1%
Investment funds – assets of consolidated VIEs				
MidCap	553	15.5%	547	12.7%
Real estate	30	0.8%	117	2.7%
Real assets	41	1.2%	19	0.5%
Total investment funds – assets of consolidated VIEs	624	17.5%	683	15.9%
Total investment funds including related parties and funds owned by consolidated VIEs	\$ 3,559	100.0%	\$ 4,300	100.0%

Note: The investment funds balances include the entire investment fund balance attributable to ACRA as ACRA is 100% consolidated. ¹ Investment funds, including related parties and investment funds of consolidated VIE's, is the GAAP measure which does not include investments that we view as alternative investments. Alternative investments include CLO equity tranche securities that are included in trading securities in the GAAP view, a nonredeemable preferred stock viewed as an alternative investment for management view but included in equity securities for GAAP view, investment funds included in our funds withheld at interest reinsurance portfolios, net assets of VIEs other than investment funds as well as royalties and other investments. Please refer to Notes to the Financial Supplement section for discussion on net invested assets including net alternative investments and the Non-GAAP Measure Reconciliations section for the reconciliation of investment funds to net alternative investments.

Net Alternative Investments (Management view)

Unaudited (in millions, except percentages)



	December 31, 2018		December 31, 2019	
	Invested Asset Value ¹	Percent of Total	Invested Asset Value ¹	Percent of Total
NET ALTERNATIVE INVESTMENTS				
Retirement Services				
Differentiated investments				
AmeriHome	\$ 568	12.6 %	\$ 595	10.7 %
MidCap	553	12.3 %	547	9.8 %
Catalina	232	5.2 %	271	4.9 %
Venerable	92	2.1 %	99	1.8 %
Other	229	5.1 %	208	3.7 %
Total differentiated investments	1,674	37.3 %	1,720	30.9 %
Real estate	1,015	22.6 %	1,430	25.6 %
Credit	537	11.9 %	968	17.3 %
Private equity	279	6.2 %	378	6.8 %
Real assets	276	6.2 %	349	6.2 %
Natural resources	55	1.2 %	51	0.9 %
Other	4	0.1 %	58	1.0 %
Total Retirement Services	3,840	85.5 %	4,954	88.7 %
Corporate & Other				
Athora	130	2.9 %	140	2.5 %
Credit	203	4.5 %	128	2.3 %
Natural resources	213	4.8 %	245	4.4 %
Public equities ²	100	2.2 %	119	2.1 %
Other	6	0.1 %	—	— %
Total Corporate & Other	652	14.5 %	632	11.3 %
Net alternative investments ¹	\$ 4,492	100.0 %	\$ 5,586	100.0 %

Note: Net invested assets includes our economic ownership of ACRA investments but does not include the investments associated with the noncontrolling interest.

¹ Net alternative investments does not correspond to the total investment funds, including related parties and VIEs, on our condensed consolidated balance sheets. Net alternative investments adjusts the GAAP presentation to include CLO equity tranche securities that are included in trading securities in the GAAP view, a nonredeemable preferred stock viewed as an alternative investment for management view but included in equity securities for GAAP view, investment funds included in our funds withheld at interest reinsurance portfolios, net assets of VIEs other than investment funds, as well as royalties and other investments. Please refer to Notes to the Financial Supplement section for discussion on net invested assets including net alternative investments and the Non-GAAP Measure Reconciliations section for the reconciliation of investment funds, including related parties and VIEs to net alternative investments.

² Public Equities include: OneMain Financial (OMF) - 2.8 million and 2.8 million of shares, respectively, as of December 31, 2019 and December 31, 2018; Caesars Entertainment (Ticker: CZR) - 0.0 million and 5.5 million of shares as of December 31, 2019 and December 31, 2018.

Funds Withheld at Interest (GAAP view)

Unaudited (in millions, except percentages)



	December 31, 2018		December 31, 2019	
	Carrying Value	Percent of Total	Carrying Value	Percent of Total
FUNDS WITHHELD AT INTEREST INCLUDING RELATED PARTIES				
Fixed maturity securities				
U.S. government and agencies	\$ 77	0.3 %	\$ 15	0.1 %
U.S. state, municipal and political subdivisions	563	2.0 %	482	1.7 %
Foreign governments	145	0.5 %	143	0.5 %
Corporate	16,267	56.9 %	14,590	51.4 %
CLO	1,990	7.0 %	2,586	9.1 %
ABS	1,601	5.6 %	2,510	8.8 %
CMBS	575	2.0 %	756	2.7 %
RMBS	1,876	6.6 %	1,482	5.2 %
Total fixed maturity securities	23,094	80.9 %	22,564	79.5 %
Equity securities	66	0.2 %	74	0.3 %
Mortgage loans	3,815	13.3 %	4,357	15.3 %
Investment funds	660	2.3 %	807	2.8 %
Derivative assets	77	0.3 %	224	0.8 %
Short-term investments	641	2.2 %	157	0.6 %
Cash and cash equivalents	455	1.6 %	239	0.8 %
Other assets and liabilities	(208)	(0.8)%	(21)	(0.1)%
Total funds withheld at interest including related parties ¹	\$ 28,600	100.0 %	\$ 28,401	100.0 %

¹ Funds withheld at interest represents a receivable for amounts contractually withheld by ceding companies in accordance with modco and funds withheld reinsurance agreements in which we act as the reinsurer. In managing our business we utilize invested assets, where we adjust the presentation for funds withheld and modco transactions to include or exclude the underlying investments based upon the contractual transfer of economic exposure to such underlying investments.

Net Investment Earned Rates (NIER)

Unaudited (In millions, except percentages)



	Quarterly Trends					Δ		Year-to-Date		Δ
	4Q'18	1Q'19	2Q'19	3Q'19	4Q'19	Q/Q	Y/Y	2018	2019	Y/Y
NIER □ CONSOLIDATED □										
Fixed income and other investments	4.35 %	4.28%	4.26%	4.11%	4.29%	18bps	(6)bps	4.37 %	4.23%	(14)bps
Alternative investments	5.81 %	4.36%	14.13%	9.26%	11.15%	189bps	NM	8.51 %	9.84%	133bps
Total net investment earned rate	4.40 %	4.28%	4.67%	4.35%	4.62%	27bps	22bps	4.54 %	4.48%	(6)bps
NIER SUMMARY □ RETIREMENT SERVICES □										
Fixed income and other investments	4.35 %	4.28%	4.26%	4.11%	4.29%	18bps	(6)bps	4.36 %	4.23%	(13)bps
Alternative investments	11.00 %	2.13%	14.46%	8.90%	10.94%	204bps	(6)bps	11.15 %	9.32%	NM
Total net investment earned rate	4.57 %	4.21%	4.63%	4.31%	4.57%	26bps	0bps	4.60 %	4.43%	(17)bps
Fixed income and other investment income	\$ 1,132	\$ 1,151	\$ 1,170	\$ 1,159	\$ 1,172	1 %	4 %	\$ 3,825	\$ 4,652	22 %
Alternatives investment income	99	20	151	105	134	28 %	35 %	363	410	13 %
Total net investment earnings	\$ 1,231	\$ 1,171	\$ 1,321	\$ 1,264	\$ 1,306	3 %	6 %	\$ 4,188	\$ 5,062	21 %
Fixed income and other investments □	\$ 104,342	\$ 107,641	\$ 109,888	\$ 112,611	\$ 109,250	(3)%	5 %	\$ 87,741	\$ 109,909	25 %
Alternatives investments □	3,597	3,802	4,171	4,727	4,899	4 %	36 %	3,254	4,401	35 %
Total average net invested assets	\$ 107,939	\$ 111,443	\$ 114,059	\$ 117,338	\$ 114,149	(3)%	6 %	\$ 90,995	\$ 114,310	26 %
NIER SUMMARY □ CORPORATE & OTHER □										
Fixed income and other investments	4.34 %	4.28%	4.26%	4.12%	4.29%	17bps	(5)bps	4.77 %	4.11%	(66)bps
Alternative investments	(22.46)%	17.66%	11.96%	11.95%	12.82%	87bps	NM	(4.12)%	13.51%	NM
Total net investment earned rate	(7.57)%	13.19%	8.39%	7.28%	7.16%	(12)bps	NM	1.99 %	8.33%	NM
Fixed income and other investment income	\$ 10	\$ 3	\$ 5	\$ 9	\$ 13	44 %	30 %	\$ 72	\$ 30	(58)%
Alternatives investment income	(37)	29	19	19	20	5 %	NM	(28)	87	NM
Total net investment earnings	\$ (27)	\$ 32	\$ 24	\$ 28	\$ 33	18 %	NM	\$ 44	\$ 117	166 %
Fixed income and other investments □	\$ 824	\$ 320	\$ 539	\$ 935	\$ 1,218	30 %	48 %	\$ 1,501	\$ 776	(48)%
Alternatives investments □	660	639	623	632	619	(2)%	(6)%	681	633	(7)%
Total average net invested assets	\$ 1,484	\$ 959	\$ 1,162	\$ 1,567	\$ 1,837	17 %	24 %	\$ 2,182	\$ 1,409	(35)%

Note: Please refer to Notes to the Financial Supplement section and the Non-GAAP Measure Reconciliations for discussion on net investment earned rate. The investment results above are presented net of investment management fees.

Net Investment Earned Rates (NIER), continued

Unaudited (in millions, except percentages)



	Quarterly Trends					Δ		Year-to-Date		Δ
	4Q'18	1Q'19	2Q'19 ¹	3Q'19	4Q'19	Q/Q	Y/Y	2018	2019	Y/Y
NIER BY ASSET CLASS										
Corporate securities	3.99%	3.93%	4.12%	3.94%	4.15%	21bps	16bps	3.95%	4.03%	8bps
Structured securities										
RMBS	6.03%	6.03%	5.07%	4.39%	5.03%	64bps	(100)bps	5.84%	5.15%	(69)bps
CLO	4.69%	4.76%	4.73%	4.57%	4.45%	(12)bps	(24)bps	4.91%	4.62%	(29)bps
ABS	4.55%	3.95%	4.34%	4.14%	3.88%	(26)bps	(67)bps	4.58%	4.02%	(56)bps
CMBS	4.18%	4.16%	3.93%	3.96%	5.27%	131bps	109bps	4.33%	4.37%	4bps
Total structured securities	5.07%	4.90%	4.64%	4.33%	4.52%	19bps	(55)bps	5.13%	4.58%	(55)bps
State, municipal, political subdivisions and U.S. and foreign government	4.19%	4.27%	3.80%	3.88%	4.07%	19bps	(12)bps	4.35%	4.01%	(34)bps
Mortgage loans	4.99%	4.91%	4.54%	4.66%	4.58%	(8)bps	(41)bps	5.15%	4.66%	(49)bps
Alternative investments	5.81%	4.36%	14.13%	9.26%	11.15%	189bps	NM	8.51%	9.84%	133bps
Other U.S. and Bermuda net invested assets	2.45%	2.70%	2.84%	2.94%	3.33%	39bps	88bps	2.30%	2.93%	63bps
Consolidated net investment earned rate	4.40%	4.28%	4.67%	4.35%	4.62%	27bps	22bps	4.54%	4.48%	(6)bps

Note: Please refer to Notes to the Financial Supplement section and the Non-GAAP Measure Reconciliations for discussion on net investment earned rate. The investment results above are presented net of investment management fees. ¹ In the second quarter of 2019, we implemented a new management fee structure which changed the allocation of fees by asset class. Although the implementation of the new management fee structure had impacts on the allocation of fees by asset class, on a consolidated basis the impact was immaterial.

Credit Quality of Securities

Unaudited (in millions, except percentages)



	December 31, 2018		December 31, 2019	
	Fair Value	Percent of Total	Fair Value	Percent of Total
CREDIT QUALITY OF AFS SECURITIES (GAAP VIEW)				
NAIC designation				
1	\$ 31,311	51.6%	\$ 38,667	51.4%
2	25,871	42.6%	32,336	43.0%
Total investment grade	57,182	94.2%	71,003	94.4%
3	2,746	4.5%	3,300	4.4%
4	533	0.9%	740	1.0%
5	232	0.4%	94	0.1%
6	9	0.0%	41	0.1%
Total below investment grade	3,520	5.8%	4,175	5.6%
Total AFS securities including related parties	\$ 60,702	100.0%	\$ 75,178	100.0%
NRSRO designation				
AAA/AA/A	\$ 19,690	32.4%	\$ 28,299	37.7%
BBB	23,326	38.4%	29,032	38.6%
Non-rated ¹	9,624	15.9%	10,014	13.3%
Total investment grade ²	52,640	86.7%	67,345	89.6%
BB	2,670	4.4%	3,403	4.5%
B	875	1.4%	813	1.1%
CCC	2,340	3.9%	1,981	2.6%
CC and lower	1,296	2.1%	1,076	1.4%
Non-rated ¹	881	1.5%	560	0.8%
Total below investment grade	8,062	13.3%	7,833	10.4%
Total AFS securities including related parties	\$ 60,702	100.0%	\$ 75,178	100.0%
	Invested Asset Value³	% NAIC 1 or 2	Invested Asset Value³	% NAIC 1 or 2
SUMMARY OF NAIC 1 & 2 DESIGNATIONS BY ASSET CLASS (MANAGEMENT VIEW)				
Corporate securities	\$ 52,496	93.8%	\$ 51,175	92.9%
RMBS	9,410	96.0%	8,001	95.3%
CLO	7,823	94.5%	10,053	98.3%
ABS	7,146	92.8%	9,476	91.8%
CMBS	2,797	92.7%	2,634	89.9%
Total structured securities	27,176	94.3%	30,164	94.7%
State, municipal, political subdivisions and U.S. and foreign government	2,233	99.0%	2,291	99.2%
Short-term investments	775	100.0%	597	95.5%
Total NAIC 1 & 2 Designations	\$ 82,680		\$ 84,227	

¹ Securities denoted as non-rated by the NRSRO were classified as investment or non-investment grade according to the security's respective NAIC designation. With respect to modeled LBaSS, and prior to January 1, 2019, non-modeled LBaSS, the NAIC designation methodology differs in significant respects from the NRSRO ratings methodology. ² We view the NAIC designation methodology as the most appropriate way to view our AFS portfolio when evaluating credit risk since a large portion of our holdings were purchased at a significant discount to par. With respect to loan-backed and structured securities, the NAIC designation methodology differs in significant respects from the NRSRO rating methodology. NRSRO ratings methodology is focused on the likelihood of recovery of all contractual payments, including principal at par regardless of entry price, while the NAIC designation methodology considers our investment at amortized cost, and the likelihood of recovery of that book value as opposed to the likelihood of the recovery of all contractual payments. ³ Please refer to Notes to the Financial Supplement section for discussion on net invested assets and Non-GAAP Measure Reconciliations section for the reconciliation of total investments including related parties to net invested assets.

Credit Quality of Net Invested Assets (Management view)

Unaudited (In millions, except percentages)



	December 31, 2018		December 31, 2019	
	Invested Asset Value ¹	% of Total	Invested Asset Value ¹	% of Total
CREDIT QUALITY OF NET INVESTED ASSETS				
NAIC designation				
1	\$ 45,287	51.7%	\$ 45,836	51.0%
2	37,393	42.7%	38,391	42.7%
Non-rated ³	—	—%	—	—%
Total investment grade	82,680	94.4%	84,227	93.7%
3	3,659	4.2%	4,056	4.5%
4	930	1.1%	1,246	1.4%
5	315	0.3%	289	0.3%
6	22	0.0%	56	0.1%
Non-rated ³	—	—%	—	—%
Total below investment grade	4,926	5.6%	5,647	6.3%
Total NAIC designated assets ²	87,606	100.0%	89,874	100.0%
Assets without NAIC designation				
Commercial mortgage loans				
CM1	4,276	39.3%	4,102	29.2%
CM2	4,184	38.4%	6,050	43.1%
CM3	1,894	17.4%	3,481	24.8%
CM4	393	3.6%	365	2.6%
CM5	138	1.3%	40	0.3%
CM6	—	—%	—	—%
CM7	—	—%	—	—%
Total CMLs	10,885	100.0%	14,038	100.0%
Residential mortgage loans				
In good standing	3,490	98.7%	4,423	98.5%
90 days late	33	0.9%	34	0.8%
In foreclosure	15	0.4%	33	0.7%
Total RMLs	3,538	100.0%	4,490	100.0%
Alternative investments	4,492		5,586	
Cash and equivalents	2,881		1,958	
Equity securities	467		365	
Other ⁴	1,165		1,175	
Net invested assets	\$ 111,034		\$ 117,486	

	December 31, 2018		December 31, 2019	
	Invested Asset Value ¹	% of Total	Invested Asset Value ¹	% of Total
CREDIT QUALITY OF NET INVESTED ASSETS				
NRSRO designation				
AAA/AA/A	\$ 30,630	35.0%	\$ 33,918	37.7%
BBB	33,289	38.0%	33,902	37.7%
Non-rated ³	13,522	15.4%	12,448	13.9%
Total investment grade	77,441	88.4%	80,268	89.3%
BB	3,587	4.1%	3,984	4.4%
B	1,316	1.5%	1,300	1.5%
CCC	2,610	3.0%	2,177	2.4%
CC and lower	1,412	1.6%	1,138	1.3%
Non-rated ³	1,240	1.4%	1,007	1.1%
Total below investment grade	10,165	11.6%	9,606	10.7%
Total NRSRO designated assets ²	87,606	100.0%	89,874	100.0%
Assets without NRSRO designation				
Commercial mortgage loans				
CM1	4,276	39.3%	4,102	29.2%
CM2	4,184	38.4%	6,050	43.1%
CM3	1,894	17.4%	3,481	24.8%
CM4	393	3.6%	365	2.6%
CM5	138	1.3%	40	0.3%
CM6	—	—%	—	—%
CM7	—	—%	—	—%
Total CMLs	10,885	100.0%	14,038	100.0%
Residential mortgage loans				
In good standing	3,490	98.7%	4,423	98.5%
90 days late	33	0.9%	34	0.8%
In foreclosure	15	0.4%	33	0.7%
Total RMLs	3,538	100.0%	4,490	100.0%
Alternative investments	4,492		5,586	
Cash and equivalents	2,881		1,958	
Equity securities	467		365	
Other ⁴	1,165		1,175	
Net invested assets	\$ 111,034		\$ 117,486	

¹ Please refer to Notes to the Financial Supplement section for discussion on net invested assets and Non-GAAP Measure Reconciliations section for the reconciliation of total investments including related parties to net invested assets. ² NAIC and NRSRO designations include corporates, CLO, RMBS, CMBS, ABS, state, municipal, political subdivisions and foreign government securities, short-term investments and U.S. government and agencies securities. ³ Securities denoted as non-rated by the NRSRO were classified as investment or non-investment grade according to the security's respective NAIC designation. With respect to modeled LBaSS, and prior to January 1, 2019, non-modeled LBaSS, the NAIC designation methodology differs in significant respects from the NRSRO ratings methodology. ⁴ Other includes policy loans, accrued interest, and other invested assets.

Credit Quality of Net Invested Assets – RMBS, CLOs, ABS (Management view)

Unaudited (In millions, except percentages)



	December 31, 2018		December 31, 2019	
	Invested Asset Value ¹	% of Total	Invested Asset Value ¹	% of Total
CREDIT QUALITY OF RMBS – NAIC DESIGNATION				
1	\$ 9,097	92.8%	\$ 7,610	90.7%
2	313	3.2%	391	4.6%
Non-rated ²	—	—%	—	—%
Total investment grade	9,410	96.0%	8,001	95.3%
3	248	2.5%	311	3.7%
4	112	1.1%	58	0.7%
5	28	0.3%	10	0.1%
6	16	0.1%	14	0.2%
Non-rated ²	—	—%	—	—%
Total below investment grade	404	4.0%	393	4.7%
RMBS net invested assets	\$ 9,814	100.0%	\$ 8,394	100.0%

	December 31, 2018		December 31, 2019	
	Invested Asset Value ¹	% of Total	Invested Asset Value ¹	% of Total
CREDIT QUALITY OF CLOs – NAIC DESIGNATION				
1	\$ 4,666	56.4%	\$ 5,796	56.7%
2	3,157	38.1%	4,257	41.6%
Non-rated ²	—	—%	—	—%
Total investment grade	7,823	94.5%	10,053	98.3%
3	423	5.1%	141	1.4%
4	22	0.3%	22	0.2%
5	7	0.1%	7	0.1%
6	—	—%	—	—%
Total below investment grade	452	5.5%	170	1.7%
CLOs net invested assets	\$ 8,275	100.0%	\$ 10,223	100.0%

	December 31, 2018		December 31, 2019	
	Invested Asset Value ¹	% of Total	Invested Asset Value ¹	% of Total
CREDIT QUALITY OF ABS – NAIC DESIGNATION				
1	\$ 4,720	61.3%	\$ 6,518	63.1%
2	2,426	31.5%	2,958	28.7%
Non-rated ²	—	—%	—	—%
Total investment grade	7,146	92.8%	9,476	91.8%
3	369	4.8%	565	5.5%
4	43	0.5%	126	1.2%
5	148	1.9%	150	1.5%
6	—	—%	—	—%
Non-rated ²	—	—%	—	—%
Total below investment grade	560	7.2%	841	8.2%
ABS net invested assets	\$ 7,706	100.0%	\$ 10,317	100.0%

	December 31, 2018		December 31, 2019	
	Invested Asset Value ¹	% of Total	Invested Asset Value ¹	% of Total
CREDIT QUALITY OF RMBS – NRSRO DESIGNATION				
AAA/AA/A	\$ 1,129	11.5%	\$ 1,068	12.7%
BBB	314	3.2%	717	8.5%
Non-rated ²	3,337	34.0%	2,702	32.2%
Total investment grade	4,780	48.7%	4,487	53.4%
BB	507	5.1%	288	3.4%
B	372	3.8%	251	3.0%
CCC	2,521	25.7%	2,061	24.6%
CC and lower	1,410	14.4%	1,134	13.5%
Non-rated ²	224	2.3%	173	2.1%
Total below investment grade	5,034	51.3%	3,907	46.6%
RMBS net invested assets	\$ 9,814	100.0%	\$ 8,394	100.0%

	December 31, 2018		December 31, 2019	
	Invested Asset Value ¹	% of Total	Invested Asset Value ¹	% of Total
CREDIT QUALITY OF CLOs – NRSRO DESIGNATION				
AAA/AA/A	\$ 4,530	54.7%	\$ 5,796	56.7%
BBB	3,555	43.0%	4,257	41.6%
Non-rated ²	—	—%	—	—%
Total investment grade	8,085	97.7%	10,053	98.3%
BB	161	1.9%	141	1.4%
B	29	0.4%	22	0.2%
CCC	—	—%	7	0.1%
CC and lower	—	—%	—	—%
Total below investment grade	190	2.3%	170	1.7%
CLOs net invested assets	\$ 8,275	100.0%	\$ 10,223	100.0%

	December 31, 2018		December 31, 2019	
	Invested Asset Value ¹	% of Total	Invested Asset Value ¹	% of Total
CREDIT QUALITY OF ABS – NRSRO DESIGNATION				
AAA/AA/A	\$ 3,319	43.1%	\$ 5,297	51.3%
BBB	1,948	25.3%	2,268	22.0%
Non-rated ²	1,661	21.5%	1,911	18.5%
Total investment grade	6,928	89.9%	9,476	91.8%
BB	436	5.7%	545	5.3%
B	89	1.1%	126	1.2%
CCC	—	—%	6	0.1%
CC and lower	—	—%	—	—%
Non-rated ²	253	3.3%	164	1.6%
Total below investment grade	778	10.1%	841	8.2%
ABS net invested assets	\$ 7,706	100.0%	\$ 10,317	100.0%

¹ Please refer to Notes to the Financial Supplement section for discussion on net invested assets and Non-GAAP Measure Reconciliations section for the reconciliation of total investments including related parties to net invested assets. ² Securities denoted as non-rated by the NRSRO were classified as investment or non-investment grade according to the security's respective NAIC designation. With respect to modeled LBaSS, and prior to January 1, 2019, non-modeled LBaSS, the NAIC designation methodology differs in significant respects from the NRSRO ratings methodology.

Net Reserve Liabilities & Rollforwards

Unaudited (in millions, except percentages)



	December 31, 2018		December 31, 2019	
	Dollars	Percent of Total	Dollars	Percent of Total
NET RESERVE LIABILITIES				
Fixed indexed annuities	\$ 73,224	68.0%	\$ 73,346	64.0%
Fixed rate annuities	17,802	16.5%	19,481	17.0%
Total deferred annuities	91,026	84.5%	92,827	81.0%
Pension risk transfer annuities	4,710	4.4%	8,230	7.2%
Payout annuities	6,009	5.6%	6,383	5.6%
Funding agreements	3,826	3.5%	5,107	4.4%
Life and other	2,161	2.0%	2,105	1.8%
Total net reserve liabilities	<u>\$ 107,732</u>	<u>100.0%</u>	<u>\$ 114,652</u>	<u>100.0%</u>

	Quarterly Trends					Δ		Year-to-Date		Δ
	4Q'18	1Q'19	2Q'19	3Q'19	4Q'19	Q/Q	Y/Y	2018	2019	Y/Y
NET RESERVE LIABILITY ROLLFORWARD										
Net reserve liabilities – beginning	\$ 98,553	\$ 107,732	\$ 111,791	\$ 114,680	\$ 118,825	4 %	21 %	\$ 75,447	\$ 107,732	43 %
Gross deposits ¹	13,147	4,860	4,153	5,759	3,735	(35)%	(72)%	40,587	18,507	(54)%
Deposits attributable to ACRA noncontrolling interest	—	—	—	—	(544)	NM	NM	—	(544)	NM
Net deposits	13,147	4,860	4,153	5,759	3,191	(45)%	(76)%	40,587	17,963	(56)%
Net withdrawals	(3,125)	(2,780)	(2,907)	(2,807)	(2,497)	11 %	20 %	(8,859)	(10,991)	(24)%
Sale of ACRA noncontrolling interest to ADIP ²	—	—	—	—	(6,141)	NM	NM	—	(6,141)	NM
Other reserve changes	(843)	1,979	1,643	1,193	1,274	7 %	NM	557	6,089	NM
Net reserve liabilities – ending	<u>\$ 107,732</u>	<u>\$ 111,791</u>	<u>\$ 114,680</u>	<u>\$ 118,825</u>	<u>\$ 114,652</u>	(4)%	6 %	<u>\$ 107,732</u>	<u>\$ 114,652</u>	6 %

ACRA NONCONTROLLING INTEREST RESERVE LIABILITY ROLLFORWARD³

Reserve liabilities – beginning	\$ —	\$ —	\$ —	\$ —	\$ —	NM	NM	\$ —	\$ —	NM
Deposits	—	—	—	—	544	NM	NM	—	544	NM
Withdrawals	—	—	—	—	(169)	NM	NM	—	(169)	NM
Sale of ACRA noncontrolling interest to ADIP ²	—	—	—	—	6,141	NM	NM	—	6,141	NM
Other reserve changes	—	—	—	—	58	NM	NM	—	58	NM
Reserve liabilities – ending	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 6,574</u>	NM	NM	<u>\$ —</u>	<u>\$ 6,574</u>	NM

Note: Please refer to Notes to the Financial Supplement section and the Non-GAAP Measure Reconciliations for discussion on net reserve liabilities. Net reserve liabilities include our economic ownership of ACRA investments but do not include the reserve liabilities associated with the noncontrolling interest. 1 Gross deposits equal deposits from our retail, flow reinsurance and institutional channels as well as premiums and deposits for life and products other than deferred annuities or our institutional products, renewal deposits on older blocks of business, annuitizations and foreign currency translation adjustments between the transaction date of large transactions and the translation period. Gross deposits include all deposits sourced by Athene, including all of the deposits reinsured to ACRA. 2 ACRA noncontrolling interest reserve liabilities at inception on October 1, 2019 were \$6.1 billion. 3 The ACRA reserve liability rollforward is a rollforward of the GAAP reserve liabilities associated with the noncontrolling interest.

Net Reserve Liabilities & Rollforwards

Unaudited (in millions, except percentages)



	Quarterly Trends					Δ		Year-to-Date		Δ
	4Q'18	1Q'19	2Q'19	3Q'19	4Q'19	Q/Q	Y/Y	2018	2019	Y/Y
NET DEFERRED ANNUITY ACCOUNT VALUE ROLLFORWARD¹										
Net account value □ beginning	\$ 80,499	\$ 89,435	\$ 90,184	\$ 91,165	\$ 91,768	1 %	14 %	\$ 58,539	\$ 89,435	53 %
Gross deposits ²	10,925	2,800	2,976	2,483	2,237	(10)%	(80)%	35,474	10,496	(70)%
Deposits attributable to ACRA noncontrolling interest	—	—	—	—	4	NM	NM	—	4	NM
Net deposits	10,925	2,800	2,976	2,483	2,241	(10)%	(79)%	35,474	10,500	(70)%
Premium and interest bonuses	68	58	68	55	34	(38)%	(50)%	265	215	(19)%
Fixed and index credits to policyholders	559	423	591	560	611	9 %	9 %	2,644	2,185	(17)%
Surrenders and benefits paid	(2,513)	(2,431)	(2,548)	(2,382)	(2,091)	12 %	17 %	(7,129)	(9,452)	(33)%
Sale of ACRA noncontrolling interest to ADIP ³	—	—	—	—	(4,450)	NM	NM	—	(4,450)	NM
Fee and product charges	(103)	(101)	(106)	(113)	(113)	— %	(10)%	(358)	(433)	(21)%
Net account value □ ending	<u>\$ 89,435</u>	<u>\$ 90,184</u>	<u>\$ 91,165</u>	<u>\$ 91,768</u>	<u>\$ 88,000</u>	(4)%	(2)%	<u>\$ 89,435</u>	<u>\$ 88,000</u>	(2)%
NET INSTITUTIONAL RESERVE LIABILITY ROLLFORWARD (PENSION RISK TRANSFER AND FUNDING AGREEMENTS) □										
Net reserve liabilities □ beginning	\$ 6,862	\$ 8,536	\$ 10,404	\$ 11,354	\$ 14,371	27 %	109 %	\$ 6,038	\$ 8,536	41 %
Gross deposits ²	2,010	1,922	1,008	3,106	1,314	(58)%	(35)%	3,232	7,350	127 %
Deposits attributable to ACRA noncontrolling interest	—	—	—	—	(548)	NM	NM	—	(548)	NM
Net deposits	2,010	1,922	1,008	3,106	766	(75)%	(62)%	3,232	6,802	110 %
Net withdrawals	(405)	(143)	(158)	(205)	(204)	— %	50 %	(946)	(710)	25 %
Sale of ACRA noncontrolling interest to ADIP ³	—	—	—	—	(1,698)	NM	NM	—	(1,698)	NM
Other reserve changes	69	89	100	116	102	(12)%	48 %	212	407	92 %
Net reserve liabilities □ ending	<u>\$ 8,536</u>	<u>\$ 10,404</u>	<u>\$ 11,354</u>	<u>\$ 14,371</u>	<u>\$ 13,337</u>	(7)%	56 %	<u>\$ 8,536</u>	<u>\$ 13,337</u>	56 %

Note: Please refer to Notes to the Financial Supplement section and the Non-GAAP Measure Reconciliations for discussion on net reserve liabilities. Net reserve liabilities include our economic ownership of ACRA investments but do not include the reserve liabilities associated with the noncontrolling interest. ¹ The account value rollforwards on deferred annuities include our fixed rate and fixed indexed annuities and are net of ceded reinsurance activity. ² Gross deposits equal deposits from our retail, flow reinsurance and institutional channels as well as premiums and deposits for life and products other than deferred annuities or our institutional products, renewal deposits on older blocks of business, annuitizations and foreign currency translation adjustments between the transaction date of large transactions and the translation period. Gross deposits include all deposits sourced by Athene, including all of the deposits reinsured to ACRA. ³ ACRA noncontrolling interest reserve liabilities at inception on October 1, 2019 were \$6.1 billion.

Deferred Annuity Liability Characteristics

Unaudited (in millions, except percentages)



	Surrender charge (gross)	Percent of total	Surrender charge (net of MVA)	Percent of total
SURRENDER CHARGE PERCENTAGES ON DEFERRED ANNUITIES NET ACCOUNT VALUE				
No Surrender Charge	\$ 18,951	21.6%	\$ 18,951	21.6%
0.0% < 2.0%	820	0.9%	1,870	2.1%
2.0% < 4.0%	2,840	3.2%	4,880	5.5%
4.0% < 6.0%	8,619	9.8%	11,821	13.4%
6.0% or greater	56,770	64.5%	50,478	57.4%
	<u>\$ 88,000</u>	<u>100.0%</u>	<u>\$ 88,000</u>	<u>100.0%</u>

	Surrender charge (gross)	MVA benefit	Surrender charge (net)
Aggregate surrender charge protection	6.3%	0.1%	6.4%

	Deferred annuities	Percent of total	Average surrender charge (gross)
YEARS OF SURRENDER CHARGE REMAINING ON DEFERRED ANNUITIES NET ACCOUNT VALUE			
No Surrender Charge	\$ 18,951	21.6%	—%
Less than 2	15,791	17.9%	5.3%
2 to less than 4	16,634	18.9%	6.8%
4 to less than 6	11,322	12.9%	8.2%
6 to less than 8	10,683	12.1%	9.5%
8 to less than 10	10,935	12.4%	10.3%
10 or greater	3,684	4.2%	14.2%
	<u>\$ 88,000</u>	<u>100.0%</u>	

	At minimum guarantees	Total account value	Percent of total account value at minimum guarantees
MINIMUM GUARANTEES ON DEFERRED ANNUITIES			
Fixed indexed annuities	\$ 14,986	\$ 68,800	22%
Fixed rate annuities	7,807	19,200	41%
Total net deferred annuities	<u>\$ 22,793</u>	<u>\$ 88,000</u>	26%

	December 31, 2019
Distance to guarantees ¹	100 – 110

¹ The distance to guarantee reflects the average distance in option costs between the current and guaranteed rates for indexed strategies and between current and guaranteed fixed rates for fixed strategies. The option costs used reflects an estimate of option cost in the market.

	December 31, 2018	December 31, 2019	Δ
DEFERRED ANNUITY RIDER RESERVE SUMMARY			
Net rider reserve	\$ 3,025	\$ 4,091	35%
Net account value with rider reserves	36,445	37,377	3%
Rider reserve as a percentage of account value with rider reserves	8.3%	10.9%	260bps

Capitalization & Regulatory Capital Ratios

Unaudited (in millions, except percentages)



	Quarterly Trends					Δ	
	4Q'18	1Q'19	2Q'19	3Q'19	4Q'19	Q/Q	Y/Y
CAPITALIZATION							
Total debt	\$ 991	\$ 991	\$ 991	\$ 992	\$ 1,467	48 %	48 %
Total AHL shareholders' equity	8,276	10,117	12,365	13,545	13,391	(1)%	62 %
Total capitalization	9,267	11,108	13,356	14,537	14,858	2 %	60 %
Less: Accumulated other comprehensive income (loss) (AOCI)	(472)	706	1,760	2,442	2,281	(7)%	NM
Less: Accumulated change in fair value of reinsurance assets	(75)	309	639	727	493	(32)%	NM
Total adjusted capitalization	<u>\$ 9,814</u>	<u>\$ 10,093</u>	<u>\$ 10,957</u>	<u>\$ 11,368</u>	<u>\$ 12,084</u>	6 %	23 %
EQUITY							
Total AHL shareholders' equity	\$ 8,276	\$ 10,117	\$ 12,365	\$ 13,545	\$ 13,391	(1)%	62 %
Less: Preferred stock	—	—	839	1,172	1,172	— %	NM
Total AHL common shareholders' equity	8,276	10,117	11,526	12,373	12,219	(1)%	48 %
Less: AOCI	(472)	706	1,760	2,442	2,281	(7)%	NM
Less: Accumulated change in fair value of reinsurance assets	(75)	309	639	727	493	(32)%	NM
Total adjusted AHL common shareholders' equity	<u>\$ 8,823</u>	<u>\$ 9,102</u>	<u>\$ 9,127</u>	<u>\$ 9,204</u>	<u>\$ 9,445</u>	3 %	7 %
EQUITY BY SEGMENT							
Retirement Services	\$ 7,807	\$ 8,201	\$ 7,704	\$ 7,494	\$ 7,443	(1)%	(5)%
Corporate and Other	1,016	901	1,423	1,710	2,002	17 %	97 %
Total adjusted AHL common shareholders' equity	<u>\$ 8,823</u>	<u>\$ 9,102</u>	<u>\$ 9,127</u>	<u>\$ 9,204</u>	<u>\$ 9,445</u>	3 %	7 %
FINANCIAL LEVERAGE							
Debt to capital ratio	10.7 %	8.9%	7.4%	6.8%	9.9%	NM	(80)bps
AOCI	(0.5)%	0.6%	1.2%	1.5%	1.8%	30bps	NM
Accumulated change in fair value of reinsurance assets	(0.1)%	0.3%	0.4%	0.4%	0.4%	0bps	NM
Adjusted debt to capital ratio	<u>10.1 %</u>	<u>9.8%</u>	<u>9.0%</u>	<u>8.7%</u>	<u>12.1%</u>	NM	200bps
REGULATORY CAPITAL RATIOS							
	December 31, 2018		December 31, 2019		Δ		
U.S. RBC ratio Athene Annuity & Life Assurance Company	421 %		429 %		NM		
BSCR Athene Life Re Ltd.	340 %		310 %		NM		
Athene Life Re Ltd. RBC ratio ¹	405 %		443 %		NM		

¹ ALRe RBC ratio, which is used in evaluating our capital position and the amount of capital needed to support our segment, is calculated by applying the NAIC RBC factors to the statutory financial statements of AHL's non-U.S. reinsurance subsidiaries, on an aggregate basis.

Financial Strength, Credit Ratings & Share Data

Unaudited (in millions, except percentages)



	A.M. Best	Standard & Poor's	Fitch
FINANCIAL STRENGTH RATINGS			
Athene Annuity & Life Assurance Company	A	A	A
Athene Annuity and Life Company	A	A	A
Athene Annuity & Life Assurance Company of New York	A	A	A
Athene Life Insurance Company of New York	A	Not Rated	Not Rated
Athene Life Re Ltd.	A	A	A
Athene Life Re International Ltd.	A	A	A
Athene Co-Invest Reinsurance Affiliate 1A Ltd. and Athene Co-Invest Reinsurance Affiliate 1B Ltd.	A	A	A
Athene Co-Invest Reinsurance Affiliate International Ltd.	A	A	A

CREDIT RATINGS

Athene Holding Ltd.	bbb	BBB+	BBB+
Senior notes	bbb	BBB+	BBB

	Quarterly Trends					Δ		Year-to-Date		Δ
	4Q'18	1Q'19	2Q'19	3Q'19	4Q'19	Q/Q	Y/Y	2018	2019	Y/Y
	SHARE DATA									
Weighted average common shares outstanding - basic ¹	197.1	194.0	191.2	184.3	177.3	(4)%	(10)%	197.1	186.6	(5)%
Weighted average shares outstanding - diluted - Class A common shares ²	164.2	161.7	158.8	152.0	145.1	(5)%	(12)%	161.1	154.3	(4)%
Weighted average common shares outstanding - adjusted operating ³	195.5	192.2	189.4	182.3	175.7	(4)%	(10)%	195.9	184.8	(6)%
Common shares outstanding ⁴	195.0	194.1	185.4	182.5	175.7	(4)%	(10)%	195.0	175.7	(10)%
Adjusted operating common shares outstanding ³	193.5	192.4	184.4	181.4	174.9	(4)%	(10)%	193.5	174.9	(10)%

¹ Basic earnings per common share, including basic weighted average common shares outstanding, includes all classes eligible to participate in dividends for each period presented. ² Diluted earnings per common share on a GAAP basis for Class A common shares, including diluted Class A weighted average common shares outstanding, includes the dilutive impacts, if any, of Class B common shares, Class M common shares and any other stock-based awards. ³ Represents Class A common shares outstanding or weighted average common shares outstanding assuming conversion or settlement of all outstanding items that are able to be converted to or settled in Class A common shares, including the impacts of Class B common shares, Class M common shares and any other stock-based awards, but excluding any awards for which the exercise or conversion price exceeds the market value of our Class A common shares on the applicable measurement date. ⁴ Represents common shares vested and outstanding for all classes eligible to participate in dividends for each period presented.

KEY OPERATING AND NON-GAAP MEASURES

In addition to our results presented in accordance with GAAP, we present certain financial information that includes non-GAAP measures. Management believes the use of these non-GAAP measures, together with the relevant GAAP measures, provides information that may enhance an investor's understanding of our results of operations and the underlying profitability drivers of our business. The majority of these non-GAAP measures are intended to remove from the results of operations the impact of market volatility (other than with respect to alternative investments) as well as integration, restructuring and certain other expenses which are not part of our underlying profitability drivers, as such items fluctuate from period to period in a manner inconsistent with these drivers. These measures should be considered supplementary to our results in accordance with GAAP and should not be viewed as a substitute for the corresponding GAAP measures.

ADJUSTED OPERATING INCOME AVAILABLE TO COMMON SHAREHOLDERS AND ADJUSTED OPERATING RETURN ON ASSETS (ROA)

Adjusted operating income available to common shareholders is a non-GAAP measure used to evaluate our financial performance excluding market volatility and expenses related to integration, restructuring, stock compensation and other expenses. Our adjusted operating income available to common shareholders equals net income available to AHL common shareholders adjusted to eliminate the impact of the following (collectively, the non-operating adjustments):

- **Investment Gains (Losses), Net of Offsets**—Consists of the realized gains and losses on the sale of AFS securities, the change in fair value of reinsurance assets, unrealized gains and losses, impairments, and other investment gains and losses. Unrealized, impairments and other investment gains and losses are comprised of the fair value adjustments of trading securities (other than CLOs) and investments held under the fair value option, derivative gains and losses not hedging FIA index credits, and the net other-than-temporary impairment (OTTI) impacts recognized in operations net of the change in AmerUs Closed Block fair value reserve related to the corresponding change in fair value of investments and the change in unit-linked reserves related to the corresponding trading securities. Investment gains and losses are net of offsets related to DAC, DSI, and VOBA amortization and changes to guaranteed lifetime withdrawal benefit (GLWB) and guaranteed minimum death benefit (GMDB) reserves (together, GLWB and GMDB reserves represent rider reserves) as well as the MVAs associated with surrenders or terminations of contracts.
- **Change in Fair Values of Derivatives and Embedded Derivatives – FIAs, Net of Offsets**—Consists of impacts related to the fair value accounting for derivatives hedging the FIA index credits and the related embedded derivative liability fluctuations from period to period. The index reserve is measured at fair value for the current period and all periods beyond the current policyholder index term. However, the FIA hedging derivatives are purchased to hedge only the current index period. Upon policyholder renewal at the end of the period, new FIA hedging derivatives are purchased to align with the new term. The difference in duration between the FIA hedging derivatives and the index credit reserves creates a timing difference in earnings. This timing difference of the FIA hedging derivatives and index credit reserves is included as a non-operating adjustment, net of offsets related to DAC, DSI, and VOBA amortization and changes to rider reserves. We primarily hedge with options that align with the index terms of our FIA products (typically 1–2 years). From an economic basis, we believe this is suitable because policyholder accounts are credited with index performance at the end of each index term. However, because the term of an embedded derivative in an FIA contract is longer-dated, there is a duration mismatch which may lead to mismatches for accounting purposes.
- **Integration, Restructuring, and Other Non-operating Expenses**—Consists of restructuring and integration expenses related to acquisitions and block reinsurance costs as well as certain other expenses, which are not predictable or related to our underlying profitability drivers.
- **Stock Compensation Expense**—Consists of stock compensation expenses associated with our share incentive plans, excluding our long-term incentive plan, which are not related to our underlying profitability drivers and fluctuate from time to time due to the structure of our plans.
- **Bargain Purchase Gain**—Consists of adjustments to net income available to AHL common shareholders as they are not related to our underlying profitability drivers.
- **Income Tax (Expense) Benefit – Non-operating**—Consists of the income tax effect of non-operating adjustments and is computed by applying the appropriate jurisdiction's tax rate to the non-operating adjustments that are subject to income tax.

We consider these non-operating adjustments to be meaningful adjustments to net income available to AHL common shareholders for the reasons discussed in greater detail above. Accordingly, we believe using a measure which excludes the impact of these items is useful in analyzing our business performance and the trends in our results of operations. Together with net income available to AHL common shareholders, we believe adjusted operating income available to common shareholders provides a meaningful financial metric that helps investors understand our underlying results and profitability. Adjusted operating income available to common shareholders should not be used as a substitute for net income available to AHL common shareholders.

Adjusted operating ROA is a non-GAAP measure used to evaluate our financial performance and profitability. Adjusted operating ROA is computed using our adjusted operating income available to common shareholders divided by average net invested assets for the relevant period. To enhance the ability to analyze these measures across periods, interim periods are annualized. While we believe each of these metrics are meaningful financial metrics and enhance our understanding of the underlying profitability drivers of our business, they should not be used as a substitute for ROA presented under GAAP.

ADJUSTED OPERATING ROE

Adjusted operating ROE is a non-GAAP measure used to evaluate our financial performance excluding the impacts of AOCI and the cumulative change in fair value of funds withheld and modco reinsurance assets, net of DAC, DSI, rider reserve and tax offsets. Adjusted AHL common shareholders' equity is calculated as the ending AHL shareholders' equity excluding AOCI, the cumulative change in fair value of funds withheld and modco reinsurance assets and preferred stock. Adjusted operating ROE is calculated as the adjusted operating income available to common shareholders, divided by average adjusted AHL common shareholders' equity. These adjustments fluctuate period to period in a manner inconsistent with our underlying profitability drivers as the majority of such fluctuation is related to the market volatility of the unrealized gains and losses associated with our AFS securities. Except with respect to reinvestment activity relating to acquired blocks of businesses, we typically buy and hold AFS investments to maturity throughout the duration of market fluctuations, therefore, the period-over-period impacts in unrealized gains and losses are not necessarily indicative of current operating fundamentals or future performance. Accordingly, we believe using measures which exclude AOCI and the cumulative change in fair value of funds withheld and modco reinsurance assets are useful in analyzing trends in our operating results. To enhance the ability to analyze these measures across periods, interim periods are annualized. Adjusted operating ROE should not be used as a substitute for ROE. However, we believe the adjustments to net income available to AHL common shareholders and equity are significant to gaining an understanding of our overall financial performance.

ADJUSTED OPERATING EARNINGS PER COMMON SHARE, WEIGHTED AVERAGE COMMON SHARES OUTSTANDING – ADJUSTED OPERATING, AND ADJUSTED BOOK VALUE PER COMMON SHARE

Adjusted operating earnings per common share, weighted average common shares outstanding – adjusted operating and adjusted book value per common share are non-GAAP measures used to evaluate our financial performance and financial condition. The non-GAAP measures adjust the number of shares included in the corresponding GAAP measures to reflect the conversion or settlement of all shares and other stock-based awards outstanding. We believe using these measures represents an economic view of our share counts and provides a simplified and consistent view of our outstanding shares. Adjusted operating earnings per common share is calculated as the adjusted operating income available to common shareholders, over the weighted average common shares outstanding – adjusted operating. Adjusted book value per common share is calculated as the adjusted AHL common shareholders' equity divided by the adjusted operating common shares outstanding. Our Class B common shares are economically equivalent to Class A common shares and can be converted to Class A common shares on a one-for-one basis at any time. Our Class M common shares are in the legal form of shares but economically function as options as they are convertible into Class A shares after vesting and payment of the conversion price. In calculating Class A diluted earnings per share on a GAAP basis, we are required to apply sequencing rules to determine the dilutive impacts, if any, of our Class B common shares, Class M common shares and any other stock-based awards. To the extent our Class B common shares, Class M common shares and/or any other stock-based awards are not dilutive, after considering the dilutive effects of the more dilutive securities in the sequence, they are excluded. Weighted average common shares outstanding – adjusted operating and adjusted operating common shares outstanding assume conversion or settlement of all outstanding items that are able to be converted to or settled in Class A common shares, including the impacts of Class B common shares on a one-for-one basis, the impacts of all Class M common shares net of the conversion price and any other stock-based awards, but excluding any awards for which the exercise or conversion price exceeds the market value of our Class A common shares on the applicable measurement date. For certain historical periods, Class M shares were not included due to issuance restrictions which were contingent upon our IPO. Adjusted operating earnings per common share, weighted average common shares outstanding – adjusted operating and adjusted book value per common share should not be used as a substitute for basic earnings per share – Class A common shares, basic weighted average common shares outstanding – Class A or book value per common share. However, we believe the adjustments to the shares and equity are significant to gaining an understanding of our overall results of operations and financial condition.

ADJUSTED DEBT TO CAPITAL RATIO

Adjusted debt to capital ratio is a non-GAAP measure used to evaluate our capital structure excluding the impacts of AOCI and the cumulative change in fair value of funds withheld and modco reinsurance assets, net of DAC, DSI, rider reserve and tax offsets. Adjusted debt to capital ratio is calculated as total debt excluding debt of consolidated variable interest entities (VIEs) divided by adjusted AHL shareholders' equity. Adjusted debt to capital ratio should not be used as a substitute for the debt to capital ratio. However, we believe the adjustments to total debt and shareholders' equity are significant to gaining an understanding of our capitalization, debt utilization and debt capacity.

RETIREMENT SERVICES NET INVESTMENT SPREAD, INVESTMENT MARGIN ON DEFERRED ANNUITIES, AND OPERATING EXPENSES

Net investment spread is a key measurement of the profitability of our Retirement Services segment. Net investment spread measures our investment performance less the total cost of our liabilities. Net investment earned rate is a key measure of our investment performance, while cost of funds is a key measure of the cost of our policyholder benefits and liabilities. Investment margin on our deferred annuities measures our investment performance less the cost of crediting for our deferred annuities, which make up a significant portion of our reserve liabilities.

- Net investment earned rate is a non-GAAP measure we use to evaluate the performance of our net invested assets that does not correspond to GAAP net investment income. Net investment earned rate is computed as the income from our net invested assets divided by the average net invested assets for the relevant period. To enhance the ability to analyze these measures across periods, interim periods are annualized. The adjustments to arrive at our net investment earned rate add alternative investment gains and losses, gains and losses related to trading securities for CLOs, net VIE impacts (revenues, expenses and noncontrolling interest) and the change in fair value of reinsurance assets. We include the income and assets supporting our change in fair value of reinsurance assets by evaluating the underlying investments of the funds withheld at interest receivables and we include the net investment income from those underlying investments which does not correspond to the GAAP presentation of change in fair value of reinsurance assets. We exclude the income and assets supporting business that we have exited through ceded reinsurance including funds withheld agreements. We believe the adjustments for reinsurance provide a net investment earned rate on the assets for which we have economic exposure.
- Cost of funds includes liability costs related to cost of crediting on both deferred annuities and institutional products as well as other liability costs. Cost of funds is computed as the total liability costs divided by the average net invested assets for the relevant period. To enhance the ability to analyze these measures across periods, interim periods are annualized.
 - Cost of crediting includes the costs for both deferred annuities and institutional products. Cost of crediting on deferred annuities is the interest credited to the policyholders on our fixed strategies as well as the option costs on the indexed annuity strategies. With respect to FIAs, the cost of providing index credits includes the expenses incurred to fund the annual index credits, and where applicable, minimum guaranteed interest credited. Cost of crediting on institutional products is comprised of PRT costs including interest credited, benefit payments and other reserve changes, net of premiums received when issued, as well as funding agreement costs including the interest payments and other reserve changes. Cost of crediting is computed as the cost of crediting for deferred annuities and institutional products divided by the average net invested assets for the relevant periods. Cost of crediting on deferred annuities is computed as the net interest credited on fixed strategies and option costs on indexed annuity strategies divided by the average net account value of our deferred annuities. Cost of crediting on institutional products is computed as the PRT and funding agreement costs divided by the average net institutional reserve liabilities. Our average net invested assets, net account values and net institutional reserve liabilities are averaged over the number of quarters in the relevant period to obtain our associated cost of crediting for such period. To enhance the ability to analyze these measures across periods, interim periods are annualized.
 - Other liability costs include DAC, DSI and VOBA amortization, change in rider reserves, the cost of liabilities on products other than deferred annuities and institutional products, excise taxes, premiums, product charges and other revenues. We believe a measure like other liability costs is useful in analyzing the trends of our core business operations and profitability. While we believe other liability costs is a meaningful financial metric and enhances our understanding of the underlying profitability drivers of our business, it should not be used as a substitute for total benefits and expenses presented under GAAP.
- Net investment earned rate, cost of funds, net investment spread and investment margin on deferred annuities are non-GAAP measures we use to evaluate the profitability of our business. We believe these metrics are useful in analyzing the trends of our business operations, profitability and pricing discipline. While we believe each of these metrics are meaningful financial metrics and enhance our understanding of the underlying profitability drivers of our business, they should not be used as a substitute for net investment income, interest sensitive contract benefits or total benefits and expenses presented under GAAP.
- Operating expenses excludes integration, restructuring and other non-operating expenses, stock compensation expense, interest expense and policy acquisition expenses. We believe a measure like operating expenses is useful in analyzing the trends of our core business operations and profitability. While we believe operating expenses is a meaningful financial metric and enhances our understanding of the underlying profitability drivers of our business, it should not be used as a substitute for policy and other operating expenses presented under GAAP.

NET INVESTED ASSETS

In managing our business, we analyze net invested assets, which does not correspond to total investments, including investments in related parties, as disclosed in our consolidated financial statements and notes thereto. Net invested assets represents the investments that directly back our net reserve liabilities as well as surplus assets. Net invested assets is used in the computation of net investment earned rate, which allows us to analyze the profitability of our investment portfolio. Net invested assets includes (a) total investments on the consolidated balance sheets with AFS securities at cost or amortized cost, excluding derivatives, (b) cash and cash equivalents and restricted cash, (c) investments in related parties, (d) accrued investment income, (e) the consolidated VIE assets, liabilities and noncontrolling interest, (f) net investment payables and receivables and (g) policy loans ceded (which offset the direct policy loans in total investments). Net invested assets also excludes assets associated with funds withheld liabilities related to business exited through reinsurance agreements and derivative collateral (offsetting the related cash positions). We include the underlying investments supporting our assumed funds withheld and modco agreements in our net invested assets calculation in order to match the assets with the income received. We believe the adjustments for reinsurance provide a view of the assets for which we have economic exposure. Net invested assets includes our proportionate share of ACRA investments, based on our economic ownership, but does not include the proportionate share of investments associated with the noncontrolling interest. Our net invested assets are averaged over the number of quarters in the relevant period to compute our net investment earned rate for such period. While we believe net invested assets is a meaningful financial metric and enhances our understanding of the underlying drivers of our investment portfolio, it should not be used as a substitute for total investments, including related parties, presented under GAAP.

NET RESERVE LIABILITIES

In managing our business, we also analyze net reserve liabilities, which does not correspond to total liabilities as disclosed in our consolidated financial statements and notes thereto. Net reserve liabilities represent our policyholder liability obligations net of reinsurance and is used to analyze the costs of our liabilities. Net reserve liabilities include (a) the interest sensitive contract liabilities, (b) future policy benefits, (c) dividends payable to policyholders, and (d) other policy claims and benefits, offset by reinsurance recoverable, excluding policy loans ceded. Net reserve liabilities include our proportionate share of ACRA reserve liabilities, based on our economic ownership, but does not include the proportionate share of reserve liabilities associated with the noncontrolling interest. Net reserve liabilities is net of the ceded liabilities to third-party reinsurers as the costs of the liabilities are passed to such reinsurers and, therefore, we have no net economic exposure to such liabilities, assuming our reinsurance counterparties perform under our agreements. The majority of our ceded reinsurance is a result of reinsuring large blocks of life business following acquisitions. For such transactions, GAAP requires the ceded liabilities and related reinsurance recoverables to continue to be recorded in our consolidated financial statements despite the transfer of economic risk to the counterparty in connection with the reinsurance transaction. While we believe net reserve liabilities is a meaningful financial metric and enhances our understanding of the underlying profitability drivers of our business, it should not be used as a substitute for total liabilities presented under GAAP.

SALES

Sales statistics do not correspond to revenues under GAAP but are used as relevant measures to understand our business performance as it relates to deposits generated during a specific period of time. Our sales statistics include deposits for fixed rate annuities and FIAs and align with the LIMRA definition of all money paid into an individual annuity, including money paid into new contracts with initial purchase occurring in the specified period and existing contracts with initial purchase occurring prior to the specified period (excluding internal transfers). While we believe sales is a meaningful metric and enhances our understanding of our business performance, it should not be used as a substitute for premiums presented under GAAP.

Non-GAAP Reconciliations

Unaudited (in millions, except per share data)



	Quarterly Trends					Year-to-Date	
	4Q'18	1Q'19	2Q'19	3Q'19	4Q'19	2018	2019
RECONCILIATION OF BOOK VALUE PER COMMON SHARE TO ADJUSTED BOOK VALUE PER COMMON SHARE							
Book value per common share	\$ 42.45	\$ 52.12	\$ 66.69	\$ 74.20	\$ 76.21		
Preferred stock	—	—	(4.53)	(6.42)	(6.67)		
AOCI	2.42	(3.64)	(9.49)	(13.38)	(12.98)		
Accumulated change in fair value of reinsurance assets	0.39	(1.59)	(3.45)	(3.98)	(2.80)		
Effect of items convertible to or settled in Class A common shares	0.33	0.41	0.28	0.32	0.26		
Adjusted book value per common share	<u>\$ 45.59</u>	<u>\$ 47.30</u>	<u>\$ 49.50</u>	<u>\$ 50.74</u>	<u>\$ 54.02</u>		

RECONCILIATION OF AVERAGE AHL SHAREHOLDERS' EQUITY TO AVERAGE ADJUSTED AHL COMMON SHAREHOLDERS' EQUITY							
Average AHL shareholders' equity	\$ 8,627	\$ 9,197	\$ 11,241	\$ 12,955	\$ 13,468	\$ 8,726	\$ 10,834
Less: Average preferred stock	—	—	420	1,006	1,172	—	586
Less: Average AOCI	(220)	117	1,233	2,101	2,362	489	905
Less: Average accumulated change in fair value of reinsurance assets	(53)	117	474	683	610	43	209
Average adjusted AHL common shareholders' equity	<u>\$ 8,900</u>	<u>\$ 8,963</u>	<u>\$ 9,114</u>	<u>\$ 9,165</u>	<u>\$ 9,324</u>	<u>\$ 8,194</u>	<u>\$ 9,134</u>

Retirement Services	\$ 7,416	\$ 8,004	\$ 7,952	\$ 7,598	\$ 7,468	\$ 6,522	\$ 7,625
Corporate and Other	1,484	959	1,162	1,567	1,856	1,672	1,509
Average adjusted AHL common shareholders' equity	<u>\$ 8,900</u>	<u>\$ 8,963</u>	<u>\$ 9,114</u>	<u>\$ 9,165</u>	<u>\$ 9,324</u>	<u>\$ 8,194</u>	<u>\$ 9,134</u>

RECONCILIATION OF BASIC WEIGHTED AVERAGE COMMON SHARES OUTSTANDING = CLASS A TO WEIGHTED AVERAGE COMMON SHARES OUTSTANDING = ADJUSTED OPERATING							
Basic weighted average common shares outstanding = Class A	164.2	161.3	158.5	151.6	144.5	160.5	153.9
Conversion of Class B common shares to Class A common shares	25.5	25.4	25.4	25.4	25.4	29.3	25.4
Conversion of Class M common shares to Class A common shares	5.2	5.1	5.1	4.9	5.2	5.6	5.1
Effect of other stock compensation plans	0.6	0.4	0.4	0.4	0.6	0.5	0.4
Weighted average common shares outstanding = adjusted operating	<u>195.5</u>	<u>192.2</u>	<u>189.4</u>	<u>182.3</u>	<u>175.7</u>	<u>195.9</u>	<u>184.8</u>

RECONCILIATION OF CLASS A COMMON SHARES OUTSTANDING TO ADJUSTED OPERATING COMMON SHARES OUTSTANDING							
Class A common shares outstanding	162.2	161.3	152.6	149.8	142.8		
Conversion of Class B common shares to Class A common shares	25.4	25.4	25.4	25.4	25.4		
Conversion of Class M common shares to Class A common shares	4.9	5.0	5.3	5.1	5.5		
Effect of other stock compensation plans	1.0	0.7	1.1	1.1	1.2		
Adjusted operating common shares outstanding	<u>193.5</u>	<u>192.4</u>	<u>184.4</u>	<u>181.4</u>	<u>174.9</u>		

Non-GAAP Reconciliations

Unaudited (in millions, except percentages)



	Quarterly Trends					Year-to-Date	
	4Q'18	1Q'19	2Q'19	3Q'19	4Q'19	2018	2019
RECONCILIATION OF NET INVESTMENT INCOME TO NET INVESTMENT EARNINGS							
GAAP net investment income	\$ 1,121	\$ 1,066	\$ 1,161	\$ 1,070	\$ 1,225	\$ 4,004	\$ 4,522
Change in fair value of reinsurance assets	132	132	161	199	188	301	680
Net VIE earnings	(18)	21	24	23	12	37	80
Alternative income gain (loss)	(20)	(5)	12	6	(12)	(34)	1
ACRA noncontrolling interest	—	—	—	—	(61)	—	(61)
Held for trading amortization and other	(11)	(11)	(13)	(6)	(13)	(76)	(43)
Total adjustments to arrive at net investment earnings	83	137	184	222	114	228	657
Total net investment earnings	<u>\$ 1,204</u>	<u>\$ 1,203</u>	<u>\$ 1,345</u>	<u>\$ 1,292</u>	<u>\$ 1,339</u>	<u>\$ 4,232</u>	<u>\$ 5,179</u>
Retirement Services	\$ 1,231	\$ 1,171	\$ 1,321	\$ 1,264	\$ 1,306	\$ 4,188	\$ 5,062
Corporate and Other	(27)	32	24	28	33	44	117
Total net investment earnings	<u>\$ 1,204</u>	<u>\$ 1,203</u>	<u>\$ 1,345</u>	<u>\$ 1,292</u>	<u>\$ 1,339</u>	<u>\$ 4,232</u>	<u>\$ 5,179</u>
RECONCILIATION OF NET INVESTMENT INCOME RATE TO NET INVESTMENT EARNED RATE							
GAAP net investment income rate	4.10 %	3.79 %	4.03 %	3.60 %	4.22 %	4.30 %	3.91 %
Change in fair value of reinsurance assets	0.48 %	0.47 %	0.56 %	0.67 %	0.65 %	0.32 %	0.59 %
Net VIE earnings	(0.07)%	0.08 %	0.09 %	0.08 %	0.04 %	0.04 %	0.07 %
Alternative income gain (loss)	(0.07)%	(0.02)%	0.04 %	0.02 %	(0.04)%	(0.04)%	— %
ACRA noncontrolling interest	— %	— %	— %	— %	(0.21)%	— %	(0.05)%
Held for trading amortization and other	(0.04)%	(0.04)%	(0.05)%	(0.02)%	(0.04)%	(0.08)%	(0.04)%
Total adjustments to arrive at net investment earned rate	0.30 %	0.49 %	0.64 %	0.75 %	0.40 %	0.24 %	0.57 %
Consolidated net investment earned rate	<u>4.40 %</u>	<u>4.28 %</u>	<u>4.67 %</u>	<u>4.35 %</u>	<u>4.62 %</u>	<u>4.54 %</u>	<u>4.48 %</u>
Retirement Services	4.57 %	4.21 %	4.63 %	4.31 %	4.57 %	4.60 %	4.43 %
Corporate and Other	(7.57)%	13.19 %	8.39 %	7.28 %	7.16 %	1.99 %	8.33 %
Consolidated net investment earned rate	<u>4.40 %</u>	<u>4.28 %</u>	<u>4.67 %</u>	<u>4.35 %</u>	<u>4.62 %</u>	<u>4.54 %</u>	<u>4.48 %</u>
Retirement Services	\$ 107,939	\$ 111,443	\$ 114,059	\$ 117,338	\$ 114,149	\$ 90,995	\$ 114,310
Corporate and Other	1,484	959	1,162	1,567	1,837	2,182	1,409
Consolidated average net invested assets	<u>\$ 109,423</u>	<u>\$ 112,402</u>	<u>\$ 115,221</u>	<u>\$ 118,905</u>	<u>\$ 115,986</u>	<u>\$ 93,177</u>	<u>\$ 115,719</u>

Non-GAAP Reconciliations

Unaudited (in millions, except percentages)



	Quarterly Trends					Year-to-Date	
	4Q'18	1Q'19	2Q'19	3Q'19	4Q'19	2018	2019
RECONCILIATION OF INTEREST SENSITIVE CONTRACT BENEFITS TO COST OF CREDITING							
GAAP interest sensitive contract benefits	\$ (825)	\$ 1,516	\$ 1,094	\$ 801	\$ 1,146	\$ 290	\$ 4,557
Interest credited other than deferred annuities and institutional products	35	55	50	63	64	65	232
FIA option costs	275	278	280	282	269	886	1,109
Product charges (strategy fees)	(28)	(28)	(29)	(31)	(31)	(98)	(119)
Reinsurance embedded derivative impacts	14	15	14	14	14	49	57
Change in fair values of embedded derivatives \square FIAs	1,039	(1,311)	(868)	(560)	(905)	436	(3,644)
Negative VOBA amortization	9	12	7	9	8	31	36
ACRA noncontrolling interest	—	—	—	—	(42)	—	(42)
Other changes in interest sensitive contract liabilities	(3)	(2)	(1)	(2)	(2)	—	(7)
Total adjustments to arrive at cost of crediting	1,341	(981)	(547)	(225)	(625)	1,369	(2,378)
Retirement Services cost of crediting	\$ 516	\$ 535	\$ 547	\$ 576	\$ 521	\$ 1,659	\$ 2,179
GAAP interest sensitive contract benefits	(3.06)%	5.44 %	3.84 %	2.73 %	4.02 %	0.32 %	3.99 %
Interest credited other than deferred annuities and institutional products	0.13 %	0.20 %	0.18 %	0.21 %	0.23 %	0.07 %	0.20 %
FIA option costs	1.02 %	1.00 %	0.98 %	0.96 %	0.94 %	0.97 %	0.97 %
Product charges (strategy fees)	(0.10)%	(0.10)%	(0.10)%	(0.10)%	(0.11)%	(0.11)%	(0.10)%
Reinsurance embedded derivative impacts	0.05 %	0.05 %	0.05 %	0.05 %	0.05 %	0.05 %	0.05 %
Change in fair values of embedded derivatives \square FIAs	3.85 %	(4.70)%	(3.05)%	(1.91)%	(3.17)%	0.48 %	(3.19)%
Negative VOBA amortization	0.03 %	0.04 %	0.02 %	0.03 %	0.03 %	0.04 %	0.03 %
ACRA noncontrolling interest	— %	— %	— %	— %	(0.15)%	— %	(0.03)%
Other changes in interest sensitive contract liabilities	(0.01)%	(0.01)%	— %	(0.01)%	(0.01)%	— %	(0.01)%
Total adjustments to arrive at cost of crediting	4.97 %	(3.52)%	(1.92)%	(0.77)%	(2.19)%	1.50 %	(2.08)%
Retirement Services cost of crediting	1.91 %	1.92 %	1.92 %	1.96 %	1.83 %	1.82 %	1.91 %
Retirement Services cost of crediting on deferred annuities	2.00 %	1.98 %	1.98 %	1.98 %	1.95 %	1.95 %	1.97 %
Retirement Services cost of crediting on institutional products	3.74 %	3.69 %	3.76 %	3.68 %	2.85 %	3.42 %	3.47 %
Retirement Services cost of crediting	1.91 %	1.92 %	1.92 %	1.96 %	1.83 %	1.82 %	1.91 %
Retirement Services average net invested assets	\$ 107,939	\$ 111,443	\$ 114,059	\$ 117,338	\$ 114,149	\$ 90,995	\$ 114,310
Average net account value on deferred annuities	88,874	89,809	90,675	91,467	87,660	73,567	89,878
Average institutional net reserve liabilities	7,827	9,809	10,470	13,320	12,931	6,683	11,632

Non-GAAP Reconciliations

Unaudited (in millions)



	Quarterly Trends					Year-to-Date	
	4Q'18	1Q'19	2Q'19	3Q'19	4Q'19	2018	2019
RECONCILIATION OF BENEFITS AND EXPENSES TO OTHER LIABILITY COSTS							
GAAP benefits and expenses	\$ 1,325	\$ 4,255	\$ 2,673	\$ 4,305	\$ 2,723	\$ 5,462	\$ 13,956
Premiums	(1,857)	(2,000)	(787)	(2,688)	(907)	(3,462)	(6,382)
Product charges	(128)	(125)	(132)	(135)	(132)	(449)	(524)
Other revenues	(4)	(12)	(9)	(6)	(10)	(26)	(37)
Cost of crediting	(227)	(242)	(253)	(280)	(238)	(724)	(1,013)
Change in fair value of embedded derivatives □ FIA, net of offsets	1,266	(1,260)	(817)	(497)	(1,003)	327	(3,577)
DAC, DSI and VOBA amortization related to investment gains and losses	36	(173)	(181)	(151)	28	110	(477)
Rider reserves	8	(28)	(24)	(9)	3	16	(58)
Policy and other operating expenses, excluding policy acquisition expenses	(102)	(103)	(117)	(130)	(138)	(395)	(488)
AmerUs closed block fair value liability	14	(53)	(59)	(46)	6	112	(152)
ACRA noncontrolling interest	—	—	—	—	(74)	—	(74)
Other	1	1	1	(5)	1	10	(2)
Total adjustments to arrive at other liability costs	(993)	(3,995)	(2,378)	(3,947)	(2,464)	(4,481)	(12,784)
Other liability costs	\$ 332	\$ 260	\$ 295	\$ 358	\$ 259	\$ 981	\$ 1,172
Retirement Services	\$ 332	\$ 260	\$ 295	\$ 358	\$ 259	\$ 981	\$ 1,172
Corporate and Other	—	—	—	—	—	—	—
Consolidated other liability costs	\$ 332	\$ 260	\$ 295	\$ 358	\$ 259	\$ 981	\$ 1,172
RECONCILIATION OF POLICY AND OTHER OPERATING EXPENSES TO OPERATING EXPENSES							
Policy and other operating expenses	\$ 172	\$ 165	\$ 185	\$ 194	\$ 200	\$ 626	\$ 744
Interest expense	(13)	(17)	(15)	(15)	(20)	(57)	(67)
Policy acquisition expenses, net of deferrals	(70)	(62)	(69)	(63)	(62)	(233)	(256)
Integration, restructuring and other non-operating expenses	(4)	(1)	(11)	(34)	(24)	(22)	(70)
Stock compensation expenses	(3)	(3)	(3)	(3)	(3)	(11)	(12)
ACRA noncontrolling interest	—	—	—	—	(5)	—	(5)
Total adjustments to arrive at operating expenses	(90)	(83)	(98)	(115)	(114)	(323)	(410)
Operating expenses	\$ 82	\$ 82	\$ 87	\$ 79	\$ 86	\$ 303	\$ 334
Retirement Services	\$ 65	\$ 62	\$ 68	\$ 67	\$ 69	\$ 242	\$ 266
Corporate and Other	17	20	19	12	17	61	68
Consolidated operating expenses	\$ 82	\$ 82	\$ 87	\$ 79	\$ 86	\$ 303	\$ 334

Non-GAAP Reconciliations

Unaudited (in millions)



	December 31, 2018	December 31, 2019
RECONCILIATION OF TOTAL INVESTMENTS INCLUDING RELATED PARTIES TO NET INVESTED ASSETS		
Total investments including related parties	\$ 107,632	\$ 129,845
Derivative assets	(1,043)	(2,888)
Cash and cash equivalents (including restricted cash)	3,403	4,639
Accrued investment income	682	807
Payables for collateral on derivatives	(969)	(2,743)
Reinsurance funds withheld and modified coinsurance	223	(1,440)
VIE and VOE assets, liabilities and noncontrolling interest	718	730
Unrealized (gains) losses	808	(4,095)
Ceded policy loans	(281)	(235)
Net investment receivables (payables)	(139)	(57)
ACRA noncontrolling interest	—	(7,077)
Total adjustments to arrive at net invested assets	3,402	(12,359)
Total net invested assets	<u>\$ 111,034</u>	<u>\$ 117,486</u>
RECONCILIATION OF INVESTMENT FUNDS INCLUDING RELATED PARTIES AND VIES TO NET ALTERNATIVE INVESTMENTS		
Investment funds including related parties and VIEs	\$ 3,559	\$ 4,300
Nonredeemable preferred stock included in equity securities	—	78
CLO equities included in trading securities	125	405
Investment funds within funds withheld at interest	660	807
Royalties and other assets included in other investments	71	66
Net assets of the VIE, excluding investment funds	50	1
Unrealized (gains) losses and other adjustments	27	8
ACRA noncontrolling interest	—	(79)
Total adjustments to arrive at net alternative investments	933	1,286
Net alternative investments	<u>\$ 4,492</u>	<u>\$ 5,586</u>
RECONCILIATION OF TOTAL LIABILITIES TO NET RESERVE LIABILITIES		
Total liabilities	\$ 117,229	\$ 132,734
Short-term debt	—	(475)
Long-term debt	(991)	(992)
Derivative liabilities	(85)	(97)
Payables for collateral on derivatives and securities to repurchase	(969)	(3,255)
Funds withheld liability	(721)	(408)
Other liabilities	(889)	(1,181)
Reinsurance ceded receivables	(5,534)	(4,863)
Policy loans ceded	(281)	(235)
ACRA noncontrolling interest	—	(6,574)
Other	(27)	(2)
Total adjustments to arrive at net reserve liabilities	(9,497)	(18,082)
Net reserve liabilities	<u>\$ 107,732</u>	<u>\$ 114,652</u>