

Allianz Life Insurance Company of North America

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Actuarial Memorandum Supporting 12% Aggregate Premium Rate Increase On Individual Long-Term Care Insurance Policy Forms

1. TYPE OF CHANGE

Allianz Life Insurance Company of North America (Company) proposes the following rate revisions for these riders (collectively referred to as COLA riders) attached to the following policy forms issued in Maryland.

Generation Protector II Policy Form Series: 11-P-Q-MD

11-R3 5% LIFETIME COMPOUND BENEFIT INCREASE RIDER – 15% rate increase

11-R2 4% LIFETIME COMPOUND BENEFIT INCREASE RIDER – 15% rate increase

11-R1 3% LIFETIME COMPOUND BENEFIT INCREASE RIDER – 10% rate increase

11-R4 TWO TIMES COMPOUND BENEFIT INCREASE RIDER – 10% rate increase

11-R5 SIMPLE BENEFIT INCREASE RIDER – 10% rate increase

Base Premium Rates – no rate change

The result of this rate increase on the above COLA riders, if approved, is similar to a 12% aggregate rate increase on the base policy form and associated rider nationally. In order to comply with COMAR 31.14.01.04A(5), the requested rate increase is being capped at 15%.

2. PURPOSE OF FILING

This actuarial memorandum has been prepared for the purpose of demonstrating that a premium rate increase is justified under rate stabilization regulation based on the Long Term Care Model Regulation and meets the minimum requirements in the statutes of Maryland.

3. LIMITATIONS AND EXCLUSIONS

This actuarial memorandum is intended to support a 12% aggregate premium rate increase described above on this plan of insurance and it is not appropriate to use for any other purposes.

4. HISTORY OF RATE REVISION

There has been one previous rate increase of 15% approved on 5/19/2016, SERFF Tracking Number ALLB-130163702. A history of rate revisions for this product is included in the Exhibit 1.

5. SCOPE AND APPLICABILITY

This filing applies to active premium paying policies issued in this state for the policy forms listed above. These policy forms are no longer being marketed. The rate changes will only apply to applicable riders and there are no changes to the base premium rates. Exhibit 1 provides a distribution of in-force policies and total annual premiums by issue state.

These rates when approved will be applied to policies delivered or issued for delivery in the state of Maryland, regardless of place of current residence.

6. DESCRIPTION OF BENEFITS

These plans are Guaranteed Renewable, Tax Qualified, Individual Long Term Care Insurance plan. Plans covers facility care and home and community care where applicable. Premiums vary by issue age and are projected to be level for the duration of the policy, unless modified by the riders elected by the policyholder. Rider charges are factor based and are a multiplier of the base premium.

Several coverage options are available:

- ❖ Various Maximum Benefit Periods
- ❖ Various Daily Benefit Amounts
- ❖ Various Elimination Periods
- ❖ Facility Care Plan with various Home and Community Care Benefit levels
- ❖ Separate rates for different underwriting classes
- ❖ Separate rates for joint and single lives

7. POLICYHOLDER OPTIONS

Assuming that the proposed rate increase becomes effective, policyholders will have the following options upon notification of the rate increase:

Policyholder Options to Reduce Benefits:

Policyholders with benefits above the minimum coverage level have the option to modify their policy benefits to mitigate the impact of the proposed rate increase. As examples, the options include, but are not limited to the following:

1. Lower their lifetime maximum benefit,
2. Lower their daily benefit,
3. Increase their elimination period.
4. Reduce or cancel COLA riders.

To further minimize the impact to policyholders: As a part of this rate increase, policyholders who reduce or cancel their COLA benefit riders will maintain all of their past COLA benefit increase percentages. Future premiums and benefit increases will be based on the new coverage levels elected by the policyholder. If the policyholder reduces their daily benefit, then the past increase in daily benefit from COLA rider will be reduced by the same proportion.

Example of a COLA rider reduction:

Policyholder with a 5% compound inflation rider can minimize the size of the rate increase reducing to a 5% simple inflation protection rider. Unless policyholders reduce their daily benefit amounts, their current daily benefits will not change as the past COLA increases will be fully vested, and they will receive a 5% simple inflation protection going forward based on their current daily benefit amount. Policyholders who elect to reduce or cancel their COLA benefit riders will likely see an overall decrease in their premiums.

57 Single Female, \$150 Original Daily Benefit, 100% HCC, 5yr BP 5% compound COLA, Preferred UW, 10 th Policy Duration	
Original Annual Premium (5% Compound COLA)	\$2,440
Annual Premium (15% rate increase, no COLA change)	\$2,806
Annual Premium (10% rate increase, change to 5% simple COLA)	\$2,089
Premium Reduction from COLA change	-\$717

57 Single Female, \$150 Original Daily Benefit, 100% HCC, Lifetime BP 5% compound COLA, Preferred UW, 10 th Policy Duration	
Original Annual Premium (5% Compound COLA)	\$3,545
Annual Premium (15% rate increase, no COLA change)	\$4,077
Annual Premium (10% rate increase, change to 5% simple COLA)	\$3,035
Premium Reduction from COLA change	-\$1,042

Example of a COLA Cancellation:

57 Single Female, \$150 Original Daily Benefit, 100% HCC, 5yr BP 5% compound COLA, Preferred UW, 10 th Policy Duration	
Original Daily Benefit	\$150
Current Daily Benefit = $150 * 1.05^{10}$	\$244
Daily Benefit after canceling COLA rider (cancelled within election window)	\$244

Example of Daily Benefit Reduction:

57 Single Female, \$150 Original Daily Benefit, 100% HCC, 5yr BP 5% compound COLA, Preferred UW, 10 th Policy Duration	
Original Daily Benefit	\$150
Current Daily Benefit = $150 * 1.05^{10}$	\$244
Reduced Daily benefit from 150 to 100 = $100 * 1.05^{10}$	\$163

Non-forfeiture Offers:

In addition, the Company will give the policyholder the option to accept a non-forfeiture benefit if they receive a premium increase at no charge. Acceptance of the non-forfeiture benefit will provide the policyholder with a reduced paid-up policy, with no future premiums required after the effective date of the policyholder's rate increase. Policyholders who elect this option will pay no additional premiums after the effective date of the rate increase, and their benefit pool will be

their total premiums paid. In consideration of our policyholders, our company does not subtract past claims from the benefit pool prior to the election of this rider.

8. ISSUE YEAR

These forms were sold from 2006 to 2009 in Maryland, and marketed nationally from 2006 through 2009. These forms are no longer being issued in any state as Allianz stopped issuing all individual standalone long-term care insurance in 2010.

9. UNDERWRITING DESCRIPTION

All policies subject to this rate revision were subject to full underwriting in accordance with Company standards in place at the time of issue. Those underwriting standards were taken into consideration when projecting future experience.

10. MARKETING METHOD

Sales were conducted by individual agents, who sold primarily on an individual policy basis. The Company no longer sells long-term care insurance policies.

11. AREA FACTORS

The Company did not use area factors within the state.

12. AVERAGE ANNUAL PREMIUM PER INSURED

Maryland Generation Protector II Policy Forms:

Current Average Annual Premium:	\$2,415	(332 Policies Inforce)
Proposed (12% increase):	\$2,704	

National Generation Protector Policy Forms:

Original Average Annual Premium:	\$2,274	(15,248 Policies Inforce)
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13. PREMIUM MODALIZATION RULES

The modal premium factors will remain unchanged from the current factors.

14. CLAIM RESERVE

At each valuation date, a claim reserve is computed for each active and pending claim case. For active claims, the claim reserve is calculated as the present value of future benefits from the

valuation date to the end of the benefit period. Benefit amounts are discounted for interest and claim continuance. Claim reserve have been discounted and allocated to the appropriate incurred year.

15. BEST ESTIMATE ACTUARIAL ASSUMPTIONS

a. Morbidity:

Attained age claim costs and Waiver of Premium benefits used in projecting future experience for this form have been developed utilizing Company-specific policy experience enhanced with other industry data as needed. Claim costs vary by joint policy status (joint vs. single), gender and various level of home health care with adjustments for elimination periods, benefit periods, and riders.

Claim costs are developed from first principle using company-specific historical claim experience. Allianz incidence rates are typically credible up to age 88. Allianz data was then graded towards industry data for ages 88 and above, ultimately equating with industry experience by age 100. Continuance and utilization rates from Allianz claim data were blended with industry data when experience lacked credibility (fewer than 1,000 beginning of month claim exposures). Allianz experience was generally in line with industry data.

Future claim costs are projected on a seriatim basis for each policyholder. These claim costs are adjusted according to each policy's benefit designs, such as COLA option, elimination periods and benefit periods.

Underwriting, claim management and product design were taken into consideration when setting the assumptions. Allianz historical experience includes the positive impact of underwriting selection. No scalar increases to the claim cost assumption are made within these projections to reflect future wear off from underwriting selection.

b. Mortality:

The projected future experience uses the gender-distinct 2012 Individual Annuitant Mortality (2012 IAM). This assumption is developed based on feedback from our consultants and is consistent with industry practice. The mortality assumption balances our morbidity assumption as neither is projected to have future improvements.

c. Persistency:

The Company's own experience was used in the development of the lapse assumption. The experience is determined to be credible through policy duration 11. The voluntary lapse assumption is split by duration, marital status and COLA option as follows:

Duration	Individual		Married	
	Non-COLA	COLA	Non-COLA	COLA
1	9.50%	7.00%	7.70%	3.50%
2	6.80%	4.50%	5.80%	2.50%
3	4.00%	2.20%	3.80%	1.50%
4	3.00%	1.50%	2.80%	1.25%
5	2.30%	1.30%	1.00%	0.50%
6	1.60%	0.90%	1.00%	0.50%
7+	1.40%	0.75%	1.00%	0.40%

Additional lapses caused by exhaustion of benefits are also modeled using claim incidence, continuance, and utilization rates.

Based on company experience, a 1% increase to lapse rate is assumed immediately after the implementation of the rate increase to account for the election of reduced paid up benefit.

d. Expected Benefit Reduction:

Based on company experience from previous rate increases, the cash flow projection for the proposed rate increase includes around a 7% reduction in COLA benefits and a 4% cancellation in COLA benefits, with the assumption varying by COLA type. Past COLA benefit increases are modeled as 100% vested in the loss ratio projection.

e. Interest and Investment Income:

Interest rate of 4.0% used in the original product filing is also used in these exhibits to calculate the loss ratio. Changes in interest rates and investment income are not used to justify the rate increase.

f. Expenses:

Changes in expense are not used to justify the rate increase and are not included in this analysis. It is assumed that original expense assumptions are still appropriate.

Exhibit 2 provides additional information and justification for the assumptions used in this filing.

16. DEMONSTRATION OF SATISFACTION OF REQUIREMENTS

The projections included in this filing are produced by applying “best estimate” actuarial assumptions that reasonably reflect actual experience. The anticipated lifetime loss ratio for policies based on these assumptions before the requested rate increase is 108.4% nationwide and 115.2% in Maryland (Exhibit 3 & 4). The lifetime loss ratio after the requested rate increase is 101.9% nationwide and 107.4% in Maryland (Exhibits 5 & 6). Loss ratios for Maryland policyholders are higher than national policies mainly due to the difference in distribution of business mix.

The 12% rate increase is not calculated to achieve a targeted loss ratio or to maintain rate stability. The Company capped the rate increase requests for individual riders at 15% to be in

accordance with COMAR 31.14.01.04A(5). This rate increase is needed to help bring premiums to more adequate levels and closer to rate levels requested nationwide. Due to requesting a lower increase than is actuarially justified, the Company will consider filing additional future rate increases as long as it is actuarially justified. The Company will continue to monitor the experience for this policy form and incorporate that experience in future rate reviews.

A detailed demonstration of the 58/85 calculations justifying the rate increase could be found in Exhibits 7. The justifiable rate increases under moderately adverse conditions are 125% on a national basis. Moderately adverse conditions for the 58/85 calculation are defined as a 10% increase in future claim cost over the current best estimate.

The historical actual to expected loss ratio is well above 100% (Exhibit 3).

17. ANALYSIS PERFORMED TO CONSIDER A RATE INCREASE

The initial premium schedules were based on pricing assumptions that reflected the Company’s best estimate utilizing the available information at the time. Experience studies performed this past year showed that experience is more unfavorable than previously assumed which resulted in assumptions being updated and has led to the Company requesting a rate increase on this product to help bring premiums closer to rate levels requested nationwide. The original pricing assumptions compared to the assumptions used for the previous rate increase filing on this product and to our current assumptions are included in the Exhibit 8.

18. LOSS RATIOS

The analysis below breaks down the lifetime loss ratio by each assumption update to the original pricing assumption. Rate increases implemented in all states are removed from projected future experience. To reflect Maryland rate history, rate increases implemented in Maryland are added back to the projected future experience under the best estimate assumptions. For actuarial modeling purposes the requested rate increase of 12% is assumed to be effective July, 2019.

	Nationwide Experience Without Rate Increase			
	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss ratio</u>	<u>Marginal Increase to LR</u>
Original Loss Ratio			66.0%	
Updated Morbidity	704,534,226	616,728,397	87.5%	32.6%
Updated Mortality & Morbidity	731,915,465	769,726,464	105.2%	20.1%
Updated Lapse & Mortality & Morbidity	752,569,455	864,426,401	114.9%	9.2%
Best Estimate Assumptions (with past MD rate increase):	797,330,506	864,426,401	108.4%	64.2%
	Nationwide Experience After 12% Rate Increase			
	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss ratio</u>	<u>Marginal Increase to LR</u>
Best Estimate Assumptions:	814,921,640	830,369,634	101.9%	54.4%

Premium reflects current rate level in Maryland.

Based on historical experience combined with projected future experience.

Premiums and Claims cash flows are discounted at original pricing interest rate (4.0%).

Loss Ratio by COLA riders prior to the rate increase:

National	5% Compound	4% Compound	Other COLA	No COLA	Grand Total
Proposed Rate Increase	15.0%	15.0%	10.0%	0.0%	12.0%
Lifetime LR No Rate Increase	131.6%	112.6%	98.8%	74.2%	108.4%
Lifetime LR After Increase	121.0%	104.7%	93.7%	74.2%	101.9%

19. DISTRIBUTION OF BUSINESS

The historical experience reflects the actual distribution of policies during the experience period. We used the current distribution of business as of December 31, 2017 to project future experience.

National					
Benefit period	5% Compound COLA	4% Compound COLA	Other COLA	No COLA	Grand Total
2-Year	0.6%	0.1%	0.9%	0.8%	2.4%
3-Year	8.1%	1.4%	9.5%	5.6%	24.7%
4-Year	5.5%	0.8%	4.6%	2.0%	12.9%
5-Year	14.0%	2.0%	11.2%	5.7%	32.9%
8-Year	6.1%	0.7%	3.8%	2.2%	12.8%
Lifetime	6.4%	0.6%	4.2%	3.1%	14.3%
Grand Total	40.7%	5.7%	34.2%	19.4%	100.0%

Maryland					
Benefit period	5% Compound	4% Compound	Other COLA	No COLA	Grand Total
2-Year	0.6%	0.3%	0.6%	1.5%	3.0%
3-Year	13.3%	1.2%	5.1%	5.1%	24.7%
4-Year	5.1%	2.1%	3.3%	2.4%	13.0%
5-Year	9.9%	1.5%	12.3%	3.6%	27.4%
8-Year	8.1%	1.5%	5.7%	1.8%	17.2%
Lifetime	9.0%	0.3%	3.0%	2.4%	14.8%
Grand Total	46.1%	6.9%	30.1%	16.9%	100.0%
Proposed Rate Increase	15%	15%	10%	0%	12%
Policyholder Impacted	153	23	100	56	332

20. ACTUARIAL CERTIFICATION

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries, and I meet the Academy's qualifications standards for preparing health rate filings.

Claims, reserves, and policyholder data are provided by our third party administrator and our valuation actuaries. Data was reviewed for reasonableness.

I hereby certify that, to the best of my knowledge and belief:

- a. It complies with Actuarial Standards of Practice No. 8 "Regulatory Filings for Rates and Financial Projections for Health Plans";
- b. The premiums charged after the proposed rate increase is not unfairly discriminatory and the premiums after the proposed rate increase are not excessive. The proposed premium rate increase is not sufficient to prevent future rate actions by the company and benefits currently are not reasonable in relation to the premiums charged.
- c. Assumptions within this filing are based on best estimate without provision for adverse deviation while interest rates used are based on original product filing.



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February 7, 2019

Exhibit 1
Allianz Life Insurance Company of North America
Status of Filings as of February 07, 2019
Policy Form Series : 11-P-Q, et al.

State	First Rate Increase				First Rate Increase (follow-up)				As of December 31, 2017	
	Amount Requested	Date Filed	Date Approved	Amount Approved	Amount Requested	Date Filed	Date Approved	Amount Approved	Policy Count	Annualized Premium
AL	38.0%	10/16/2015	5/11/2016	24.1%					391	\$ 797,606
AK	38.0%	10/21/2015	10/21/2015	38.0%					38	\$ 111,689
AZ	60.0%	10/16/2015	6/21/2016	26.7%					411	\$ 953,945
AR	38.0%	6/14/2016	8/3/2016	10.0%	27.0%	2/7/2019			122	\$ 247,904
CO	38.0%	12/27/2017	6/2/2017	9.8%					585	\$ 1,337,202
CT	38.0%	5/5/2016	9/22/2016	15.0%	24.0%	2/7/2019			166	\$ 539,328
DE	38.0%	12/27/2018							37	\$ 90,378
DC	38.0%	1/7/2019							29	\$ 72,885
FL	TBD								559	\$ 1,376,047
GA	38.0%	10/16/2015	3/15/2016	12.0%	25.0%	2/7/2019			663	\$ 1,445,083
HI	38.0%	10/16/2015	11/15/2018	30.2%					24	\$ 55,899
ID	38.0%	10/16/2015	12/24/2015	38.0%					138	\$ 302,771
IL	60.0%	10/16/2015	12/11/2017	60.0%					827	\$ 1,887,998
IN	38.0%								107	\$ 284,462
IA	38.0%	10/16/2015	4/7/2016	17.9%	22.0%	2/7/2019			438	\$ 977,857
KS	60.0%	10/16/2015	7/26/2016	60.0%					403	\$ 786,440
KY	38.0%	10/16/2015	1/18/2016	31.7%					175	\$ 393,231
LA	38.0%	12/27/2018							198	\$ 349,964
ME	38.0%	1/12/2016	8/18/2016	33.0%					77	\$ 259,253
MD	38.0%	10/16/2015	5/19/2016	15.0%	12.0%	2/7/2019			332	\$ 801,700
MA	38.0%	7/28/2016	9/6/2017	16.0%					49	\$ 172,794
MI	38.0%	10/16/2015	11/6/2015	38.0%					468	\$ 1,066,891
MN	38.0%	7/28/2016	11/4/2016	33.1%					1,659	\$ 3,501,940
MS	38.0%	10/16/2015	12/16/2015	25.0%	8.0%	2/7/2019			111	\$ 192,463
MO	38.0%	11/16/2015	1/29/2016	38.0%					687	\$ 1,442,940
MT	38.0%	10/16/2015	6/8/2017	27.1%	12.0%	2/7/2019			126	\$ 281,122
NE	38.0%	10/16/2015	12/10/2015	38.0%					416	\$ 1,072,891
NV	38.0%	6/14/2016	7/5/2017	30.0%					95	\$ 201,428
NH	38.0%	10/16/2015	2/16/2016	38.0%					81	\$ 247,065
NJ	38.0%	10/16/2015	10/27/2016	20.9%					317	\$ 832,351
NM	38.0%	12/27/2018	1/28/2019	12.0%					122	\$ 252,451
NC	38.0%	10/16/2015	5/10/2016	30.0%					374	\$ 807,174
ND	38.0%	10/16/2015	12/14/2015	15.0%	17.0%	2/7/2019			132	\$ 267,406
OH	38.0%	10/16/2015	5/20/2016	15.0%	22.0%	2/7/2019			462	\$ 1,014,489
OK	38.0%	10/16/2015	2/22/2016	10.0%	24.0%	2/7/2019			255	\$ 530,857
OR	38.0%	10/16/2015	1/28/2016	38.0%					292	\$ 567,969
PA	38.0%	10/16/2015	3/30/2016	31.5%					574	\$ 1,450,563
RI	38.0%	12/27/2018							75	\$ 160,343
SC	38.0%	10/16/2015	2/8/2016	20.0%	14.0%	2/7/2019			236	\$ 489,706
SD	38.0%	10/16/2015	11/13/2015	38.0%					193	\$ 443,446
TN	38.0%	10/16/2015	4/5/2016	38.0%					381	\$ 770,974
TX	60.0%	2/17/2016	5/11/2016	60.0%					892	\$ 2,112,308
UT	38.0%	6/9/2016	8/17/2016	38.0%					52	\$ 102,070
VT	38.0%	12/27/2018							33	\$ 72,803
VA	60.0%	10/16/2015	6/8/2016	60.0%					722	\$ 1,674,029
WA	38.0%	10/19/2015	6/16/2016	23.9%					270	\$ 721,878
WV	38.0%	10/16/2015	2/26/2016	38.0%					24	\$ 51,027
WI	38.0%	12/17/2015	9/19/2016	38.0%					357	\$ 897,719
WY	38.0%	10/16/2015	2/9/2016	38.0%					73	\$ 207,288
Total									15,248	\$ 34,678,029

Exhibit 3
Allianz Life Insurance Company of North America
Nationwide Experience
Policy Form Series : 11-P-Q
As of 12/31/2017
No Rate Increase

<u>Year</u>	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>	<u>Pricing Expected</u>	<u>Pricing Expected</u>	<u>Expected</u>	<u>Actual to</u>
				<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>	<u>Expected</u>
2006	\$1,714,644	\$0	0.0%	\$1,727,083	\$25,219	1.5%	0.00
2007	\$11,320,567	\$227,676	2.0%	\$11,511,978	\$184,629	1.6%	1.25
2008	\$24,415,795	\$125,737	0.5%	\$25,146,351	\$495,283	2.0%	0.26
2009	\$33,303,226	\$704,775	2.1%	\$35,009,870	\$893,648	2.6%	0.83
2010	\$36,730,757	\$765,386	2.1%	\$38,669,150	\$1,331,168	3.4%	0.61
2011	\$35,579,277	\$1,807,922	5.1%	\$37,133,176	\$1,776,057	4.8%	1.06
2012	\$34,770,320	\$3,524,582	10.1%	\$35,855,953	\$2,285,003	6.4%	1.59
2013	\$34,148,353	\$3,685,799	10.8%	\$34,723,437	\$2,867,892	8.3%	1.31
2014	\$33,542,166	\$2,321,265	6.9%	\$33,645,438	\$3,517,232	10.5%	0.66
2015	\$32,987,760	\$6,053,518	18.4%	\$32,571,112	\$4,240,838	13.0%	1.41
2016	\$32,262,156	\$7,236,672	22.4%	\$31,397,028	\$5,027,637	16.0%	1.40
2017	\$32,815,278	\$10,371,756	31.6%	\$29,791,772	\$5,869,977	19.7%	1.60
2018	\$33,582,606	\$7,585,676	22.6%				
2019	\$32,246,715	\$8,966,316	27.8%				
2020	\$31,286,962	\$10,309,701	33.0%				
2021	\$30,361,297	\$11,874,760	39.1%				
2022	\$29,394,364	\$13,731,715	46.7%				
2023	\$28,422,306	\$15,881,006	55.9%				
2024	\$27,411,110	\$18,427,768	67.2%				
2025	\$26,374,798	\$21,331,227	80.9%				
2026	\$25,306,765	\$24,675,844	97.5%				
2027	\$24,209,537	\$28,430,317	117.4%				
2028	\$23,083,872	\$32,665,979	141.5%				
2029	\$21,937,636	\$37,155,042	169.4%				
2030	\$20,762,314	\$41,886,137	201.7%				
2031	\$19,582,303	\$46,654,399	238.2%				
2032	\$18,375,544	\$51,548,853	280.5%				
2033	\$17,163,542	\$56,259,949	327.8%				
2034	\$15,946,753	\$60,867,463	381.7%				
2035	\$14,739,096	\$65,163,422	442.1%				
2036	\$13,534,678	\$69,170,256	511.1%				
2037	\$12,351,704	\$72,465,239	586.7%				
2038	\$11,199,001	\$75,197,106	671.5%				
2039	\$10,088,721	\$77,122,361	764.4%				
2040	\$9,022,841	\$78,441,998	869.4%				
2041	\$8,014,576	\$78,695,685	981.9%				
2042	\$7,067,858	\$78,158,487	1105.8%				
2043	\$6,189,719	\$76,723,007	1239.5%				
2044	\$5,378,706	\$74,686,774	1388.6%				
2045	\$4,642,724	\$71,722,976	1544.8%				
2046	\$3,978,485	\$68,170,549	1713.5%				
2047	\$3,385,421	\$64,041,212	1891.7%				
2048	\$2,860,141	\$59,676,003	2086.5%				
2049	\$2,400,555	\$54,942,604	2288.7%				
2050	\$2,001,450	\$50,193,578	2507.9%				
2051	\$1,658,459	\$45,440,021	2739.9%				
2052	\$1,365,750	\$40,890,280	2994.0%				
2053	\$1,118,767	\$36,428,584	3256.1%				
2054	\$911,648	\$32,247,516	3537.3%				
2055	\$739,352	\$28,318,476	3830.2%				
2056	\$596,741	\$24,727,240	4143.7%				
2057	\$479,766	\$21,364,202	4453.1%				
2058	\$384,121	\$18,346,883	4776.3%				
2059	\$306,373	\$15,643,394	5106.0%				
2060	\$243,394	\$13,312,289	5469.4%				
2061	\$192,756	\$11,281,217	5852.6%				
2062	\$152,109	\$9,568,881	6290.8%				
2063	\$119,630	\$8,110,212	6779.4%				
2064	\$93,700	\$6,878,901	7341.4%				
2065	\$73,105	\$5,803,211	7938.2%				
2066	\$56,761	\$4,870,887	8581.4%				
2067	\$43,843	\$4,057,047	9253.5%				
2068	\$33,656	\$3,349,523	9952.1%				
2069	\$25,680	\$2,726,357	10616.8%				
2070+	\$74,788	\$9,766,313	13058.6%				

Summary of Experience at 4.0%

	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>	<u>Expected</u>	<u>Expected</u>	<u>Expected</u>	<u>Actual to</u>
				<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>	<u>Expected</u>
Historical (YE2017)	\$423,330,993	\$41,232,560	9.7%	\$429,379,257	\$32,650,232	7.6%	1.28
Projected Future (2018 +)	\$373,999,513	\$823,193,840	220.1%				
Total Lifetime Anticipated	\$797,330,506	\$864,426,401	108.4%				

Exhibit 4
Allianz Life Insurance Company of North America
Maryland-specific Experience
Policy Form Series : 11-P-Q-MD
As of 12/31/2017
No Rate Increase

<u>Year</u>	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>
2006	\$6,594	\$0	0.0%
2007	\$227,438	\$0	0.0%
2008	\$522,960	\$0	0.0%
2009	\$748,944	\$0	0.0%
2010	\$845,307	\$8,479	1.0%
2011	\$808,916	\$102,411	12.7%
2012	\$798,649	\$197,332	24.7%
2013	\$785,217	\$154,808	19.7%
2014	\$773,926	\$1,731	0.2%
2015	\$757,915	\$0	0.0%
2016	\$735,432	\$0	0.0%
2017	\$757,947	\$250,521	33.1%
2018	\$786,669	\$155,207	19.7%
2019	\$770,043	\$188,330	24.5%
2020	\$751,275	\$220,841	29.4%
2021	\$731,761	\$258,313	35.3%
2022	\$711,455	\$302,156	42.5%
2023	\$690,355	\$352,959	51.1%
2024	\$668,420	\$412,843	61.8%
2025	\$645,681	\$481,192	74.5%
2026	\$622,095	\$560,964	90.2%
2027	\$597,690	\$652,275	109.1%
2028	\$572,468	\$755,575	132.0%
2029	\$546,518	\$865,458	158.4%
2030	\$519,847	\$983,609	189.2%
2031	\$492,538	\$1,106,038	224.6%
2032	\$464,645	\$1,235,259	265.9%
2033	\$436,347	\$1,360,068	311.7%
2034	\$407,737	\$1,483,911	363.9%
2035	\$378,998	\$1,601,874	422.7%
2036	\$350,262	\$1,715,121	489.7%
2037	\$321,818	\$1,812,883	563.3%
2038	\$293,834	\$1,898,233	646.0%
2039	\$266,571	\$1,964,171	736.8%
2040	\$240,210	\$2,016,249	839.4%
2041	\$215,044	\$2,044,692	950.8%
2042	\$191,236	\$2,050,654	1072.3%
2043	\$168,960	\$2,032,934	1203.2%
2044	\$148,301	\$2,002,396	1350.2%
2045	\$129,369	\$1,948,646	1506.3%
2046	\$112,135	\$1,877,474	1674.3%
2047	\$96,605	\$1,786,161	1848.9%
2048	\$82,691	\$1,685,994	2038.9%
2049	\$70,349	\$1,570,363	2232.3%
2050	\$59,464	\$1,454,233	2445.6%
2051	\$49,942	\$1,336,278	2675.7%
2052	\$41,658	\$1,215,688	2918.3%
2053	\$34,513	\$1,091,255	3161.9%
2054	\$28,384	\$971,577	3422.9%
2055	\$23,167	\$856,154	3695.6%
2056	\$18,750	\$748,024	3989.4%
2057	\$15,054	\$641,953	4264.4%
2058	\$11,979	\$544,499	4545.5%
2059	\$9,443	\$454,272	4810.5%
2060	\$7,368	\$375,080	5090.7%
2061	\$5,694	\$306,039	5374.6%
2062	\$4,358	\$248,754	5708.0%
2063	\$3,303	\$201,634	6103.9%
2064	\$2,478	\$163,777	6608.9%
2065	\$1,837	\$132,240	7200.5%
2066	\$1,344	\$106,178	7902.3%
2067	\$970	\$84,761	8736.6%
2068	\$691	\$66,920	9687.4%
2069	\$484	\$51,781	10691.4%
2070+	\$948	\$135,262	14264.8%

Summary of Experience at 4.0%

	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>
Historical (YE2017)	\$9,540,699	\$830,524	8.7%
Projected Future (2018 +)	\$9,239,475	\$20,805,340	225.2%
Total Lifetime Anticipated	\$18,780,174	\$21,635,864	115.2%

Exhibit 5
Allianz Life Insurance Company of North America
Nationwide Experience
Policy Form Series : 11-P-Q
As of 12/31/2017
With Average 12% Rate Increase

<u>Year</u>	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>
2006	\$1,714,644	\$0	0.0%
2007	\$11,320,567	\$227,676	2.0%
2008	\$24,415,795	\$125,737	0.5%
2009	\$33,303,226	\$704,775	2.1%
2010	\$36,730,757	\$765,386	2.1%
2011	\$35,579,277	\$1,807,922	5.1%
2012	\$34,770,320	\$3,524,582	10.1%
2013	\$34,148,353	\$3,685,799	10.8%
2014	\$33,542,166	\$2,321,265	6.9%
2015	\$32,987,760	\$6,053,518	18.4%
2016	\$32,262,156	\$7,236,672	22.4%
2017	\$32,815,278	\$10,371,756	31.6%
2018	\$33,582,606	\$7,585,676	22.6%
2019	\$32,637,743	\$8,857,567	27.1%
2020	\$32,933,926	\$10,202,384	31.0%
2021	\$32,047,178	\$11,742,155	36.6%
2022	\$31,027,935	\$13,548,269	43.7%
2023	\$30,003,486	\$15,633,153	52.1%
2024	\$28,937,731	\$18,101,227	62.6%
2025	\$27,845,520	\$20,915,970	75.1%
2026	\$26,719,590	\$24,164,807	90.4%
2027	\$25,562,431	\$27,817,975	108.8%
2028	\$24,375,222	\$31,940,176	131.0%
2029	\$23,166,101	\$36,299,781	156.7%
2030	\$21,926,005	\$40,874,715	186.4%
2031	\$20,680,476	\$45,457,733	219.8%
2032	\$19,406,473	\$50,134,498	258.3%
2033	\$18,126,630	\$54,607,880	301.3%
2034	\$16,841,504	\$58,961,648	350.1%
2035	\$15,565,641	\$62,997,998	404.7%
2036	\$14,292,932	\$66,739,233	466.9%
2037	\$13,042,694	\$69,775,937	535.0%
2038	\$11,824,289	\$72,249,908	611.0%
2039	\$10,650,824	\$73,925,303	694.1%
2040	\$9,524,234	\$74,995,526	787.4%
2041	\$8,458,551	\$75,025,850	887.0%
2042	\$7,458,061	\$74,292,331	996.1%
2043	\$6,530,045	\$72,707,152	1113.4%
2044	\$5,673,071	\$70,564,487	1243.8%
2045	\$4,895,513	\$67,564,085	1380.1%
2046	\$4,193,895	\$64,032,374	1526.8%
2047	\$3,567,609	\$59,984,739	1681.4%
2048	\$3,013,058	\$55,743,139	1850.1%
2049	\$2,528,016	\$51,184,832	2024.7%
2050	\$2,106,950	\$46,639,756	2213.6%
2051	\$1,745,223	\$42,119,775	2413.4%
2052	\$1,436,650	\$37,816,780	2632.3%
2053	\$1,176,392	\$33,619,236	2857.8%
2054	\$958,238	\$29,700,765	3099.5%
2055	\$776,843	\$26,031,057	3350.9%
2056	\$626,768	\$22,686,577	3619.6%
2057	\$503,723	\$19,564,793	3884.0%
2058	\$403,159	\$16,771,166	4159.9%
2059	\$321,446	\$14,274,649	4440.8%
2060	\$255,281	\$12,126,391	4750.2%
2061	\$202,102	\$10,258,505	5075.9%
2062	\$159,429	\$8,686,339	5448.4%
2063	\$125,342	\$7,349,638	5863.7%
2064	\$98,138	\$6,223,218	6341.3%
2065	\$76,538	\$5,241,291	6847.9%
2066	\$59,402	\$4,392,039	7393.8%
2067	\$45,863	\$3,652,391	7963.7%
2068	\$35,190	\$3,010,774	8555.8%
2069	\$26,836	\$2,447,055	9118.6%
2070+	\$77,955	\$8,722,726	11189.4%

Summary of Experience at 4.0%

	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>
Historical (YE2017)	\$423,330,993	\$41,232,560	9.7%
Projected Future (2018 +)	\$391,590,647	\$789,137,074	201.5%
Total Lifetime Anticipated	\$814,921,640	\$830,369,634	101.9%

Exhibit 6
Allianz Life Insurance Company of North America
Maryland-specific Experience
Policy Form Series : 11-P-Q-MD
As of 12/31/2017
With Average 12% Rate Increase

<u>Year</u>	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>
2006	\$6,594	\$0	0.0%
2007	\$227,438	\$0	0.0%
2008	\$522,960	\$0	0.0%
2009	\$748,944	\$0	0.0%
2010	\$845,307	\$8,479	1.0%
2011	\$808,916	\$102,411	12.7%
2012	\$798,649	\$197,332	24.7%
2013	\$785,217	\$154,808	19.7%
2014	\$773,926	\$1,731	0.2%
2015	\$757,915	\$0	0.0%
2016	\$735,432	\$0	0.0%
2017	\$757,947	\$250,521	33.1%
2018	\$786,669	\$155,207	19.7%
2019	\$779,537	\$186,479	23.9%
2020	\$795,520	\$218,746	27.5%
2021	\$777,126	\$255,310	32.9%
2022	\$755,615	\$297,900	39.4%
2023	\$733,264	\$347,087	47.3%
2024	\$710,024	\$405,005	57.0%
2025	\$685,928	\$471,111	68.7%
2026	\$660,930	\$548,429	83.0%
2027	\$635,056	\$637,086	100.3%
2028	\$608,307	\$737,429	121.2%
2029	\$580,776	\$843,956	145.3%
2030	\$552,466	\$958,022	173.4%
2031	\$523,468	\$1,075,547	205.5%
2032	\$493,840	\$1,198,943	242.8%
2033	\$463,769	\$1,317,403	284.1%
2034	\$433,358	\$1,434,420	331.0%
2035	\$402,801	\$1,545,331	383.6%
2036	\$372,241	\$1,651,292	443.6%
2037	\$341,987	\$1,741,868	509.3%
2038	\$312,218	\$1,819,870	582.9%
2039	\$283,214	\$1,878,485	663.3%
2040	\$255,168	\$1,923,058	753.6%
2041	\$228,395	\$1,944,398	851.3%
2042	\$203,067	\$1,943,960	957.3%
2043	\$179,371	\$1,920,980	1071.0%
2044	\$157,399	\$1,886,135	1198.3%
2045	\$137,266	\$1,829,843	1333.1%
2046	\$118,944	\$1,757,697	1477.8%
2047	\$102,437	\$1,667,336	1627.7%
2048	\$87,653	\$1,569,356	1790.4%
2049	\$74,544	\$1,457,730	1955.5%
2050	\$62,988	\$1,346,364	2137.5%
2051	\$52,883	\$1,234,047	2333.6%
2052	\$44,094	\$1,120,092	2540.2%
2053	\$36,518	\$1,003,286	2747.3%
2054	\$30,022	\$891,424	2969.2%
2055	\$24,494	\$783,937	3200.5%
2056	\$19,816	\$683,565	3449.6%
2057	\$15,902	\$585,523	3682.0%
2058	\$12,648	\$495,715	3919.3%
2059	\$9,966	\$412,834	4142.5%
2060	\$7,771	\$340,260	4378.5%
2061	\$6,002	\$277,126	4617.1%
2062	\$4,591	\$224,844	4897.7%
2063	\$3,477	\$181,922	5231.4%
2064	\$2,607	\$147,492	5657.5%
2065	\$1,931	\$118,854	6155.7%
2066	\$1,412	\$95,242	6746.7%
2067	\$1,019	\$75,882	7448.6%
2068	\$725	\$59,797	8248.1%
2069	\$508	\$46,195	9092.8%
2070+	\$994	\$120,462	12124.0%

Summary of Experience at 4.0%

	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>
Historical (YE2017)	\$9,540,699	\$830,524	8.7%
Projected Future (2018 +)	\$9,728,577	\$19,863,192	204.2%
Total Lifetime Anticipated	\$19,269,275	\$20,693,716	107.4%

Exhibit 7
58/85 Calculations
Allianz Life Insurance of North America
Nationwide Experience
Policy Form Series : 11-P-Q

Following the format of Section 20(C)(2) of Model 641 (Long-Term Care Insurance Model Regulation), the "58/85" calculation is as follows (all dollar values in millions):

a)	The accumulated value of the initial earned premium is	421.30
	58% of this value:	244.36
b)	The accumulated value of prior premium rate schedule increases is	2.03
	85% of this value:	1.72
c)	The present value of future projected initial earned premiums is	331.27
	58% of this value:	192.13
d)	The present value of future projected earned premium from prior premium rate schedule increases is	42.73
	PV of future projected EP from 12% increase:	17.59
	Combined:	60.32
	85% of this value:	51.28
e)	The accumulated value of past incurred claims is	41.23
	The present value of future projected incurred claims* is	868.05
	sum of these 2 values:	909.28
f)	The sum of a,b,c and d is	489.49
	This amount is less than e)	909.28

*Projected incurred claims contain a 10% margin for moderately adverse experience.

Exhibit 8
Allianz Life Insurance Company of North America
Comparison of Assumptions
Policy Form 11-P-Q, et al.

	Original Pricing Assumption	Prior Rate Increase Assumption	Current Best Estimate Assumption
Original Loss Ratio	65.50%	N/A	N/A
Mortality	1994 Group Annuity Reserving Table, with select factors of .5, .6, .7, .8, .9, 1.0 (years 6+)	The projected future experience uses 80% of the gender-distinct 1994 GAM table for mortality without future improvements.	The projected future experience uses the gender-distinct 2012 IAM table for mortality without any future improvement.
Lapse	See table on next page	The Company's own experience was used for this study. The experience was determined to be credible and the voluntary lapses are provided on a subsequent page. Additional lapses caused by exhaustion of benefits are also modeled using claim incidence and continuance rates. The total terminations that are not caused by deaths are estimated to be around 1.75% annually as all policyholders are on duration 7+.	The Company's own experience was used for this study. The experience is determined to be credible. See table on subsequent page Additional lapses caused by exhaustion of benefits are also modeled using claim incidence, continuance, and utilization rates. A 2% shock lapse is assumed for policies that receive the requested rate increase.
Morbidity	Claim costs were developed using Milliman, USA's 2002 edition of their Long Term Care Guidelines (Guidelines). The Guidelines were developed from public sources as well as an internal database of \$1.8 billion of Long Term Care insurance claims. Milliman then created and validated the morbidity adjustment factors using their Long Term Care insurance claim data base. Allianz then made some additional adjustments to ensure consistency with several additional sources of claim costs, including the 1997 National Nursing Home Study, and two long term care reinsurers.	Attained age claim costs and Waiver of Premium benefits used in projecting future experience for this form have been developed utilizing Company-specific policy experience enhanced with other industry data as needed. Claim costs vary by joint policy status (joint vs. single), gender and various level of home health care with adjustments for elimination periods and riders. Claim costs are developed from first principle using company specific historical claim experience. Allianz incidence rates are typically credible up to age 75. The incidence rates for the older ages (75+) is developed based on actuarial judgment using our own experience along with data provided by our consultant in 2012 and the 2007 SOA LTC Intercompany Study. Allianz continuance rates were blended with industry data that was provided by our consultant in 2012 using limited fluctuation credibility. Generally, Allianz continuance rates are lower than industry experience. Future claim costs are projected on a seriatim basis for each policyholder. These claim costs are adjusted according to each policy's benefit designs, such as COLA option, elimination periods and benefit periods. There is no morbidity load for anti-selection since this will be the first rate increase for these policies. Underwriting, claim management and product design were taken into consideration when setting the assumptions. Allianz historical experience includes the positive impact of underwriting selection and these underwriting factors are expected to wear off in the future. No scalar increases to the claim cost assumption are made within these projections to reflect the wear off from underwriting selection.	Attained age claim costs and Waiver of Premium benefits used in projecting future experience for this form have been developed utilizing Company-specific policy experience enhanced with other industry data as needed. Claim costs vary by joint policy status (joint vs. single), gender and various level of home health care with adjustments for elimination periods, benefit periods, and riders. Claim costs are developed from first principle using company-specific historical claim experience. Allianz incidence rates are typically credible up to age 88. Allianz data was then graded towards industry data for ages 88 and above, ultimately equating with industry experience by age 100. Continuance and utilization rates from Allianz claim data were blended with industry data when experience lacked credibility (fewer than 1,000 beginning of month claim exposures). Allianz experience was generally in line with industry data. Future claim costs are projected on a seriatim basis for each policyholder. These claim costs are adjusted according to each policy's benefit designs, such as COLA option, elimination periods and benefit periods. Underwriting, claim management and product design were taken into consideration when setting the assumptions. Allianz historical experience includes the positive impact of underwriting selection. No scalar increases to the claim cost assumption are made within these projections to reflect future wear off from underwriting selection.
Interest	4.0%	4.0%	4.0%
Expense	Original Pricing Loss Ratio does not include expenses. Expenses are used to calculate the company's profit margin.	Changes in expense are not used to justify the rate increase and are not included in this analysis. It is assumed that original expense assumptions are still appropriate.	Changes in expense are not used to justify the rate increase and are not included in this analysis. It is assumed that original expense assumptions are still appropriate.

Exhibit 8
Allianz Life Insurance Company of North America
Comparison of Assumptions
Original Pricing Lapse Rates
Policy Form 11-P-Q, et al.

Individual Policies

Duration	No COLA	5% Compound COLA	Other COLA
1	7.00%	5.00%	6.00%
2	6.00%	4.00%	5.00%
3	5.00%	3.00%	4.00%
4	3.50%	2.00%	2.75%
5+	2.25%	1.25%	1.75%

With Spousal Discount Rider

Duration	No COLA	5% Compound COLA	Other COLA
1	6.00%	3.00%	4.50%
2	4.00%	2.00%	3.00%
3	3.00%	1.50%	2.25%
4	2.50%	1.00%	1.75%
5+	2.00%	1.00%	1.50%

Individual Policies with 10-Year Premium Payment Rider

Duration	No COLA	5% Compound COLA	Other COLA
1	7.00%	5.00%	6.00%
2	6.00%	4.00%	5.00%
3	5.00%	3.00%	4.00%
4	3.50%	2.00%	2.75%
5	2.25%	1.25%	1.75%
6	1.80%	1.00%	1.40%
7	1.35%	0.75%	1.05%
8	0.90%	0.50%	0.70%
9	0.45%	0.25%	0.35%
10+	0.00%	0.00%	0.00%

With Spousal Discount Rider and 10-Year Premium Payment Rider

Duration	No COLA	5% Compound COLA	Other COLA
1	6.00%	3.00%	4.50%
2	4.00%	2.00%	3.00%
3	3.00%	1.50%	2.25%
4	2.50%	1.00%	1.75%
5	2.00%	1.00%	1.50%
6	60.00%	0.80%	1.20%
7	1.20%	0.60%	0.90%
8	0.80%	0.40%	0.60%
9	0.40%	0.20%	0.30%
10+	0.00%	0.00%	0.00%

Exhibit 8
Allianz Life Insurance Company of North America
Comparison of Assumptions
Prior Rate Increase and Current Assumption Voluntary Lapse Rates
Policy Form 11-P-Q, et al.

Duration	Prior Rate Filing	Current Rate Filing			
		Individual		Married	
	All Policies	Non-COLA	COLA	Non-COLA	COLA
1	7.00%	9.50%	7.00%	7.70%	3.50%
2	3.40%	6.80%	4.50%	5.80%	2.50%
3	2.20%	4.00%	2.20%	3.80%	1.50%
4	1.50%	3.00%	1.50%	2.80%	1.25%
5	1.00%	2.30%	1.30%	1.00%	0.50%
6	0.90%	1.60%	0.90%	1.00%	0.50%
7+	0.75%	1.40%	0.75%	1.00%	0.40%