Re: LTC-FAC, LTC-VAL, LTC-IDEAL and LTC-PREM

Issued by Metropolitan Life Insurance Company (MetLife)

Attached is the filing for the captioned forms. This letter provides an overview of the filing and notes on some of the content. After a careful review of earlier filings, we have endeavored to reflect in this filing additional content based on all the questions submitted by your Department. Hopefully, this will make your review easier and more effective.

Filing Overview

In addition to this overview, this filing consists of the Actuarial Memorandum, the Addendum <u>Automatic Inflation Choices "Landing Spots"</u> focusing on premium rates for various levels of inflation protection for use as Landing Spots consequent to rate action, and supporting data based on earlier reviews. These documents are outlined and summarized here for your convenience.

| Title | Description | |
|---------------------------------------|--|--|
| Actuarial Memorandum | | |
| Exhibit I-A | Lifetime Loss Ratio ("LLR") | |
| | Without/with proposed rate increase of | |
| | 32.25% (actuarially equivalent to two 15% | |
| | increases) | |
| | • Nationwide experience | |
| | Weighted average statutory rate 4.48% | |
| | LLR without rate increase – 123.5% | |
| | LLR with rate increase – 110.3% | |
| Exhibit II-A | Demonstration of rate action meeting Rate Stability | |
| | (58/85) limitations | |
| Exhibit I-B | Lifetime Loss Ratio ("LLR") | |
| | Without/with proposed rate increase of | |
| | 32.25% (equivalent to two 15% increases) | |
| | • <i>Maryland</i> experience | |
| | Weighted average statutory rate 4.48% | |
| | LLR without rate increase –130.4% | |
| | LLR with rate increase – 115.8% | |
| Exhibit II-B | Demonstration of rate action meeting Rate Stability | |
| | (58/85) limitations | |
| Review of Prior Correspondence | | |
| Attachment 1 | Comparison of Original Pricing and Current Best | |
| | Estimate Assumptions | |
| Attachment 2 | Nationwide Actual-to-Expected Loss Ratios by | |
| | Duration | |
| | LLR without rate increase – 121%; A/E – 1.92 | |
| Attachment 3 | Nationwide Actual-to-Expected Loss Ratios by | |
| | Calendar Year | |
| | LLR without rate increase – 123.4%; A/E – 1.96 | |

| Attachment 4 | Actual-to-Expected results for Lapse, Mortality and Morbidity assumptions |
|---------------------------------|---|
| Addendum – Actuarial Memorandum | |
| Addendum | Memorandum on Premium Rates for use as |
| | "Landing Spots" with Rate Increases |

Additional Notes

MetLife requests the rate action based on deviations from anticipated experience outlined in the Actuarial Memorandum, the Addendum, and the supporting attachments. Lifetime Loss Ratios exceed all minimum requirements in Maryland as well as the application of rate stability standards even at the full requested rate action. In addition, though Maryland-only experience is not necessarily credible, the Maryland LLR's still meet the standards above at the full rate action level.

COMAR 31.14.01.04A(5) states, "An insurer may not charge a renewal premium rate for a long-term care policy which exceeds by more than 15 percent any premium charged for the policy during the preceding 12 months." This filing limits the requested rate increase to 15%.

Despite the rate action requested, the experience of the block does not fully return to pricing levels. In general, the rate action restricts consideration of recovering historical losses by focusing on future lifetime experience. We will continue, of course, to analyze and adjust experience assumptions and reserve the right to update those in the future along with requesting any resulting changes in premium rates.

Thank you for your consideration. I look forward to hearing from you.

Mark D. Newton, FSA, MAAA

Mark Debuton

Actuarial Director, Metropolitan Life Insurance Company

New York, NY

Actuarial Memorandum for VIP Series

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Policy Forms

The premium rate schedule increase for which we are seeking approval will apply to the following individual long-term care policy forms:

- LTC-FAC-MD
- LTC-VAL-MD
- LTC-IDEAL-MD
- LTC-PREM-MD

These forms were developed as part of a nationwide series and were issued in Maryland from August 2002 to June 2006, but are no longer being marketed in any state. Nationwide, the last policies under this series were issued in 2009.

Policy forms LTC-FAC-MD, LTC-VAL-MD, LTC-IDEAL-MD, and LTC-PREM-MD (subsequently referred to as LTC-FAC, LTC-VAL, LTC-IDEAL, and LTC-PREM, respectively) are existing individual tax-qualified policy forms and were previously approved in 2002, along with any rider or endorsement forms that were contemporaneously or subsequently approved for use with these policy forms.

Policy form LTC-FAC provides coverage for long-term care services received in a nursing home, assisted living facility (ALF), or hospice facility. Policy forms LTC-VAL, LTC-IDEAL and LTC-PREM provide comprehensive long-term care coverage.

1. Purpose of Filing

This actuarial memorandum has been prepared for the purpose of demonstrating that the anticipated loss ratio standard of this product meets the minimum requirements of your state and may not be suitable for other purposes.

2. Description of Benefits

<u>LTC-FAC</u> is part of a nationwide series of individually underwritten policy forms which reimburses 100% of charges, up to a maximum facility benefit amount, for confinement in a licensed nursing home or assisted living facility. Benefits are payable under skilled, intermediate, or custodial levels of care, as well as inpatient hospice care.

The daily benefit amount and the maximum benefit period are selected at issue. Additional benefits for needs assessment expenses and transition expenses are also provided. In addition, LTC-FAC provides benefits for international coverage, caregiver training, and alternate services. For married couples in which both spouses purchase identical primary policies, the policy of the surviving spouse will become paid-up on death of the other spouse, provided that both policies have been inforce, with no benefits paid, for at least ten years.

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<u>LTC-VAL</u> is part of a nationwide series of individually underwritten policy forms which reimburses 100% of charges, up to a maximum facility benefit amount, for confinement in a licensed nursing home. Benefits are payable under skilled, intermediate, or custodial levels of care, as well as inpatient hospice care.

LTC-VAL also includes an assisted living/home care/community-based care benefit which reimburses 100% of charges from formal caregivers, up to a maximum assisted living/home/community-based care benefit amount, for services received at home or assisted living facility or at an adult day care center for maintenance or personal care, including hospice care.

The daily benefit amount, assisted living/home care/adult day care percentage, and maximum benefit period are selected at issue. Additional benefits for needs assessment expenses are also provided. In addition, LTC-VAL provides benefits for respite care, international coverage, caregiver training, and alternate services.

<u>LTC-IDEAL</u> is part of a nationwide series of individually underwritten policy forms which reimburses 100% of charges, up to a maximum facility benefit amount, for confinement in a licensed nursing home or assisted living facility. Benefits are payable under skilled, intermediate, or custodial levels of care, as well as inpatient hospice care.

LTC-IDEAL also includes a home care/community-based care benefit which reimburses 100% of charges from formal caregivers, up to a maximum home care/community-based care benefit amount, for services received at home or at an adult day care center for maintenance or personal care, including hospice care.

The daily benefit amount, home care/adult day care percentage, and maximum benefit period are selected at issue. Additional benefits for needs assessment expenses and transition expenses are also provided. In addition, LTC-IDEAL provides benefits for respite care, international coverage, caregiver training, alternate services, and supportive services/specialized transportation. For married couples in which both spouses purchase identical primary policies, the policy of the surviving spouse will become paid-up on death of the other spouse, provided that both policies have been inforce, with no benefits paid, for at least ten years.

<u>LTC-PREM</u> is part of a nationwide series of individually underwritten policy forms which reimburses a maximum facility benefit amount, for confinement in a licensed nursing home. Benefits are payable under skilled, intermediate, or custodial levels of care, as well as inpatient hospice care.

LTC-PREM also includes a home/community-based care benefit which reimburses a maximum home/community-based care benefit amount, for services received at home or assisted living facility or at an adult day care center for maintenance or personal care, including hospice care.

The daily benefit amount, home care/adult day care percentage, and maximum benefit period are selected at issue. Additional benefits for needs assessment expenses and international coverage are

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also provided. For married couples in which both spouses purchase identical primary policies, the policy of the surviving spouse will become paid-up on death of the other spouse, provided that both policies have been inforce, with no benefits paid, for at least ten years..

LTC-FAC, LTC-VAL, LTC-IDEAL, and LTC-PREM

For all these policies, benefit eligibility is based on the inability to perform at least two of six activities of daily living (ADLs) including bathing, continence, dressing, eating, toileting, and transferring, for a period of at least 90 days due to loss of functional capacity; or due to severe cognitive impairment.

Benefit payments commence after a specified number of days in a waiting period, selected at issue, which accumulate over the lifetime of the policy. The waiting period need not be satisfied before receiving coverage for hospice care (except LTC-PREM) or (if covered under the policy form) respite care, needs assessment or caregiver training; however, receipt of these services does not count towards satisfying the waiting period. Waiver of premium is provided beginning on the first day of the policy month coincident with or following the day the insured becomes eligible for benefit payments (includes completion of the waiting period).

At issue, the insured had the option of choosing one of the following benefit increase riders: 5% Compound, 5% Simple, or Future Purchase (in some states, a 3% Compound Inflation Rider was also available).

At issue, the insured had the option of selecting the following riders: Nonforfeiture Coverage Rider, Return of Premium Rider, Restoration of Benefits Rider, Shared Care Rider, Home Care Plus Rider (LTC-IDEAL only), Indemnity Rider (LTC-VAL only), Ten Year Premium Payment Rider, or Paidup Rider. A Contingent Benefits Upon Lapse Rider is attached to all policies, except those that select the Nonforfeiture Coverage Rider, for no additional premium. The insured could also elect a Double Pay First Year or Reduced Pay at 65 Option.

3. Renewability

These policy forms are guaranteed renewable for life.

4. Applicability

This filing is applicable to in-force policies only, as these policy forms are no longer being sold in the market. The premium changes will apply to the base forms as well as all applicable riders.

5. Actuarial Assumptions

a. <u>Expected Claim Costs</u> are the product of attained age frequency rates and continuance curves, adjusted by utilization factors and underwriting selection factors based on actual experience through June 30, 2016.

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b. <u>Voluntary Termination Rates</u> vary by duration as developed from actual experience through June 30, 2016 and are shown in the following table:

Voluntary Termination Rates

| Policy Duration | Lapse Rate |
|-----------------|------------|
| 1 | 5.00% |
| 2 | 4.50% |
| 3 | 4.00% |
| 4 | 3.50% |
| 5 | 2.50% |
| 6 | 2.00% |
| 7 | 1.80% |
| 8 | 1.50% |
| 9 | 1.30% |
| 10 | 1.10% |
| 11+ | 1.10% |

In the year of rate increase implementation, it is assumed that an additional 4.0% of policies lapse and there is 3.0% net reduction to future premiums and benefits due to benefit downgrades. There is no adverse selection assumed due to the additional lapse rates.

- c. Mortality 88% of Annuity 2000 Basic Table with selection consistent with experience.
- d. <u>Expenses</u> Expenses have not been explicitly projected. It is assumed that the originally filed expense assumptions remain appropriate.

The above assumptions are based on actual inforce experience of MetLife and are deemed reasonable for these particular policy forms. In establishing the assumptions described in this section, the policy design, underwriting, and claims adjudication practices for the above-referenced policy forms were taken into consideration.

6. Marketing Method

These policy forms were marketed by agents and brokers of MetLife.

7. Underwriting Description

These policy forms were fully underwritten with the use of various underwriting tools in addition to the application, which may have included medical records, an attending physician's statement, telephone interview and/or face-to-face assessment.

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8. Premiums

Premiums are unisex, but vary by issue age, rating class, benefit period, initial daily benefit, waiting period, home and community care percentage, inflation protection option, payment method, premium mode and the selection of any other options or riders.

9. Issue Age Range

These policy forms were issued up to age 84.

10. Area Factors

Area factors are not used for this product.

11. Premium Modalization Rules

The following modal factors are applied to the annual premium (AP):

| Premium Mode | Modal Factors |
|--------------|---------------|
| Annual | 1.00*AP |
| Semi-Annual | 0.51*AP |
| Quarterly | 0.265*AP |
| Monthly | 0.09*AP |

12. Reserves

Active life reserves have not been used in this rate increase analysis. Claim reserves as of December 31, 2016 have been discounted to the incurral date of each respective claim and included in historical incurred claims. Incurred but not reported reserve balances as of December 31, 2016 have been allocated to a calendar year of incurral and included in historical incurred claims.

13. Trend Assumptions

As this is not medical insurance, we have not included any explicit medical cost trends in the projections.

14. Past and Future Policy Experience

Nationwide and Maryland experience for policy form series LTC-FAC, LTC-VAL, LTC-IDEAL, and LTC-PREM are shown in Exhibit I-A and Exhibit I-B, respectively.

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Historical experience is shown by claim incurral year. Claim payments and reserves were discounted to the mid-point of the year of incurral at the weighted average maximum valuation interest rate for contract reserves which is 4.48%. Incurred but not reported reserve balances as of December 31, 2016 have been allocated to a calendar year of incurral and included in historical incurred claims.

Annual loss ratios are calculated, with and without interest, as incurred claims divided by earned premiums.

A lifetime loss ratio as of December 31, 2016 is calculated as the sum of accumulated past experience and discounted future experience where accumulation and discounting occur at the weighted average maximum valuation interest rate for contract reserves, which is 4.48%.

15. Projected Earned Premiums and Incurred Claims

Earned premiums for projection years 2017 through 2097 are developed by multiplying each prior period's earned premium (starting with December 31, 2016 actual earned premium) by a persistency factor. For a year in which the rate increase is effective, the earned premium prior to the increase is multiplied by 1 plus the rate increase percent and an effectiveness factor.

Each projection year claim amount is calculated by multiplying incidence, continuance and utilization factors by the policy and rider benefits on a seriatim basis.

Present and accumulated values in the lifetime projections in Exhibit I are determined at the average maximum valuation interest rate for contract reserves applicable to LTC business issued in the years in which the applicable business of this filing were issued. The maximum valuation interest rate averages 4.48%.

The assumptions used in the projections in Exhibit I were developed from the company's LTC insurance experience.

Projections in Exhibit II provide a demonstration that the sum of the accumulated value of incurred claims without the inclusion of active life reserves, and the present value of future projected incurred claims, without the inclusion of active life reserves, will not be less than the sum of the following:

- 1. Accumulated value of the initial earned premium times 58%;
- 2. 85% of the accumulated value of prior premium rate schedule increases;
- 3. Present value of future projected initial earned premium times 58%; and
- 4. 85% of the present value of future projected premium in excess of the projected initial earned premium.

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16. History of Previous Inforce Rate Increases

| Round | Authorized % | Authorization Date | Implementation Date |
|-------|--------------|---------------------------|---------------------|
| 1 | 15.00% | 8/21/2009 | 2/1/2010 |
| 2 | 15.00% | 1/15/2016 | 6/1/2016 |

The 2009 premium rate increase applied to policyholders with an issue age under 70, except when reduced by new business caps that were based on policies with similar benefits that were available for sale from MetLife.

The experience and projections in Exhibit I-A have been restated to reflect a rate level similar to that authorized in Maryland on a nationwide basis.

17. Requested Rate Increase

The company is requesting two rate increases of 15.00% each, resulting in a cumulative compounded increase of 32.25%. Corresponding rate tables reflecting the increases are included with this filing.

| Phase | Request | Expected Implementation Date |
|-------|---------|-------------------------------------|
| 1 | 15% | 1/1/2019 |
| 2 | 15% | 4/1/2020 |

The rate tables reflect the prior authorized increases, but do not reflect any issue age and/or new business cap associated with the 2009 rate increase. Also note that the actual rates implemented may vary slightly from those filed due to implementation rounding algorithms.

18. Analysis Performed

The initial premium schedule was based on pricing assumptions believed to be appropriate, given the information available, at the time the initial rate schedule was developed. The original pricing assumptions for claim costs, voluntary termination rates and mortality were as follows:

a. Incidence and claim termination rates: The original pricing expected claim costs for nursing care were derived from the 1985 and 1995 National Nursing Home Surveys and adjusted to reflect: (1) surveys of nursing home resident cohorts indicate certain long-term residents would not meet the benefit eligibility under the contracts, and (2) the Medicaid population, which exhibits worse health status and greater LTC services use, is included in the survey.

Original pricing claim costs for home and community care benefit and additional benefits were derived from the 1989 and 1994 National Long-Term Care Survey of disable elders in the Community.

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The original pricing expected claim costs for nursing care, home and community care, and additional benefits were also adjusted to reflect the benefits available under these policy forms.

b. The original pricing expected voluntary termination rates varied by duration and issue age as shown in the following table:

| Policy Duration | Up to Issue Age 64 | Issue Age 65+ |
|-----------------|--------------------|---------------|
| 1 | 6.0% | 8.0% |
| 2 | 5.0% | 6.0% |
| 3 | 4.0% | 4.0% |
| 4+ | 3.0% | 3.0% |

c. The original pricing expected mortality rates were based on the 1983 Group Annuity Mortality Table.

As part of the in-force management of its long-term care insurance business, MetLife monitors its performance by completing periodic analyses of lapse rates, mortality rates, claim incidence rates, claim continuance rates and claim utilization rates. The findings from these analyses were used to determine the current experience assumptions. A model of this business was developed for use in the cash flow testing that is part of the company's annual statutory reporting requirements. Using this model, a future projection of these policies under the new experience assumptions was performed and the projected lifetime loss ratio for these policies was determined. For these policies, the past experience and future projections based on current experience assumptions combine to a resulting loss ratio that far exceeds both original pricing expectations and state minimum requirements.

Similar analyses were done for the prior premium rate increases. Since then, morbidity levels have been worse than that assumed in the prior rate increase.

The experience analysis, management's view of when a change to the original rate schedule may be considered, and the seriatim inforce and claim data used in developing the projections in Exhibit I and II have been relied upon by the actuary in the development of this memorandum.

19. Loss Ratio Requirement Compliance Demonstration

Projected experience assuming the increases are implemented is shown in Exhibit I-A and I-B. As shown in these exhibits, the expected lifetime loss ratio, both with and without the requested rate increase, exceeds the minimum loss ratio requirement.

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20. Average Annual Premium

The average September 30, 2017 annualized premium for all premium-paying policies before and after the requested increases are:

| Before increase: | \$2,641 |
|-------------------------------------|---------|
| After 1 st phase of 15%: | \$3,038 |
| After 2 nd phase of 15%: | \$3,493 |

The average September 30, 2017 annualized premiums for all premium-paying policies issued in Maryland, before and after the requested increases are:

| Before increase: | \$2,584 |
|-------------------------------------|---------|
| After 1 st phase of 15%: | \$2,972 |
| After 2 nd phase of 15%: | \$3,418 |

21. Proposed Effective Date

This rate increase will become effective on each policy's modal premium due date (monthly, quarterly, semi-annually and annually) following at least a 60-day advance written notification to the policyholder.

22. Nationwide Distribution of Business as of September 30, 2017 (based on premium-paying policies inforce count)

By Issue Age

| Issue Age | % |
|-----------|------|
| <45 | 6% |
| 45-49 | 10% |
| 50-54 | 21% |
| 55-59 | 29% |
| 60-64 | 22% |
| 65-69 | 9% |
| 70-74 | 3% |
| 75+ | 1% |
| Total | 100% |

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By Benefit Period

| Benefit Period | % |
|----------------|------|
| 1 Year | 0% |
| 1.5 Year | 0% |
| 2 Year | 7% |
| 3 Year | 20% |
| 4 Year | 16% |
| 5 Year | 27% |
| 6 Year | 0% |
| 7 Year | 6% |
| Lifetime | 24% |
| Total | 100% |

By Inflation Type

| Inflation Type | % |
|----------------|------|
| Compound 3% | 0% |
| Compound 5% | 61% |
| Simple 5% | 26% |
| FPO | 3% |
| None | 10% |
| Total | 100% |

By Home Care Percentage

| Home Care Percentage | % |
|-------------------------|------|
| None (FC only) | 3% |
| 50% | 5% |
| 75% | 8% |
| 100% | 84% |
| Total | 100% |

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By Gender

| Gender | % |
|--------|------|
| Female | 59% |
| Male | 41% |
| Total | 100% |

By Premium Payment Option

| Payment Option | % |
|-----------------------|------|
| Double Pay First Year | 3% |
| Paid - Up | 2% |
| Reduced Pay at 65 | 5% |
| Lifetime | 90% |
| Ten Pay | 0% |
| Total | 100% |

23. Number of Policyholders

As of September 30, 2017, the number of premium-paying policies inforce and premiums that will be affected by this increase are:

| | | ed Before Rate gulation Effective Date | | ed On or After Rate gulation Effective Date |
|------------|----------------------|---|----------------------|--|
| | Number of Insured | 2017 Annualized Premium | Number of Insured | 2017 Annualized Premium |
| Maryland | - | - | 2,071 | \$5,350,246 |
| Nationwide | 31,519 | \$86,920,745 | 34,743 | \$88,056,958 |

24. 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 qualification standards for preparing health rate filings and to render the actuarial opinion contained herein.

This memorandum has been prepared in conformity with all applicable Actuarial Standards of Practice, including ASOP No. 8.

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I hereby certify that, to the best of my knowledge and judgment, this rate submission is in compliance with the applicable laws and regulations of Maryland except the filing does not include the certification required for certain policies subject to your Department's long-term care Rate Stability rules. A larger rate increase would be needed in order to certify.

I further certify that:

- the analysis described in Section 18 of this memorandum was used in determining the need for a rate increase:
- the policy design, underwriting and claims adjudication practices have been taken into consideration in this rate increase request;
- the actuarial assumptions are appropriate and the gross premiums bear reasonable relationship to the benefits; and
- the relationship between renewal premium rate schedules and new business premium rate schedules is not applicable because we are no longer marketing new business.

Mark D. Newton, FSA, MAAA

Mark Dleuton

Actuarial Director, Metropolitan Life Insurance Company

Exhibit I-A

Metropolitan Life Insurance Company Nationwide Experience Projections (Premium Normalized to Include Prior Authorized Increases) and With No Future Increase Policy Forms: LTC-FAC, LTC- VAL, LTC-IDEAL and LTC- PREM

| | | | | Loss Ra | tio Demonstr | | | | | ors Derived fr | om Projected Values | | | nly | Interest Rat | |
|---------------------|--------------------|--------------------------------|----------------------------------|----------------------|------------------------|--------------------------------|--------------------------------|----------------------|--------------------------|----------------|---------------------------------------|-----------------------|----------------|----------------|----------------------------|--------------------------|
| | Calendar | W Earned | ithout Interest | Loss | Life | Earned | With Interest | Loss | Premium Rate Increase | Benefit | Policy | Persistency Policy | Factors Policy | Premium | Calendar Year Effective | Mid-Year Disc / Accum |
| | Year | Premium | Incurred Claims | Ratio | Years | Premium | Incurred Claims | Ratio | Factor | Downgrade | , , , , , , , , , , , , , , , , , , , | Shock Lapse | | Persistency | Int Rate | Factor |
| | 1998 1999 | - | - | N/A N/A | - | - | - | N/A N/A | | | | | | | 4.48% 4.48% | 2.2498 2.1533 |
| | 2000 | - | - | N/A N/A | | - | - | N/A N/A | | | | | | | 4.48% | 2.1533 |
| | 2001 | - | - | N/A | - | - | - | N/A | | | | | | | 4.48% | 1.9726 |
| | 2002 2003 | 1,496,379 22,339,571 | - 179,109 | 0.0% 0.8% | 3,208 20,902 | 2,825,177 40,368,641 | - 323,658 | 0.0% 0.8% | | | | | | | 4.48% 4.48% | 1.8880 1.8070 |
| | 2004 | 82,618,065 | 1,210,252 | 1.5% | 57,671 | 142,892,539 | 2,093,199 | 1.5% | | | | | | | 4.48% | 1.7296 |
| Historical | 2005 | 184,350,022 | 6,828,973 | 3.7% | 100,020 | 305,170,793 | 11,304,599 | 3.7% | | | | | | | 4.48% | 1.6554 |
| Experience | 2006 2007 | 225,053,606 214,075,039 | 9,417,184 16,422,844 | 4.2% 7.7% | 100,233 97,473 | 356,575,077 324,635,700 | 14,920,592 24,904,546 | 4.2% 7.7% | | | | | | | 4.48% 4.48% | 1.5844 1.5165 |
| | 2008 | 206,128,039 | 16,409,501 | 8.0% | 94,603 | 299,179,997 | 23,817,208 | 8.0% | | | | | | | 4.48% | 1.4514 |
| | 2009 | 195,930,837 | 20,225,873 | 10.3% | 91,475 | 272,184,578 | 28,097,521 | 10.3% | | | | | | | 4.48% 4.48% | 1.3892 |
| | 2010 2011 | 212,251,681 223,191,685 | 23,805,795 25,160,180 | 11.2% 11.3% | 88,725 86,549 | 282,213,053 284,033,265 | 31,652,546 32,018,791 | 11.2% 11.3% | | | | | | | 4.48% 4.48% | 1.3296 1.2726 |
| | 2012 | 217,286,403 | 28,607,858 | 13.2% | 85,430 | 264,660,412 | 34,845,104 | 13.2% | | | | | | | 4.48% | 1.2180 |
| | 2013 2014 | 209,279,626 188,906,020 | 32,841,502 44,262,258 | 15.7% 23.4% | 84,877 82,915 | 243,976,850 210,781,604 | 38,286,413 49,387,890 | 15.7% 23.4% | | | | | | | 4.48% 4.48% | 1.1658 1.1158 |
| | 2015 | 159,728,244 | 55,400,216 | 34.7% | 81,772 | 170,582,259 | 59,164,828 | 34.7% | | | | | | | 4.48% | 1.0680 |
| Drainated | 2016 | 147,635,557 | 62,819,010 | 42.6% | 80,690 | 150,906,640 | 64,210,858 | 42.6% | 1 2006 | NI/A | 0.0240 | NI/A | 0.076 | 0.040 | 4.48% | 1.0222 |
| Projected Future | 2017 2018 | 153,484,329 148,713,703 | 78,098,843 88,543,181 | 50.9% 59.5% | 78,756 76,768 | 150,157,372 139,251,167 | 76,405,957 82,909,248 | 50.9% 59.5% | 1.3096 1.3192 | N/A N/A | 0.0240 0.0253 | N/A N/A | | 0.949 0.962 | 4.48% 4.48% | 0.9783 0.9364 |
| Experience | 2019 | 142,780,881 | 100,677,602 | 70.5% | 74,723 | 127,962,628 | 90,228,961 | 70.5% | 1.3192 | N/A | 0.0266 | N/A | 0.973 | 0.960 | 4.48% | 0.8962 |
| | 2020 2021 | 136,737,852 130,744,224 | 114,676,844 130,661,280 | 83.9% 99.9% | 72,618 70,448 | 117,291,647 107,341,109 | 98,368,050 107,273,012 | 83.9% 99.9% | 1.3192 1.3192 | N/A N/A | 0.0282 0.0299 | N/A N/A | | 0.958 0.956 | 4.48% 4.48% | 0.8578 0.8210 |
| | 2022 | 124,751,967 | 148,734,120 | 119.2% | 68,214 | 98,029,369 | 116,874,405 | 119.2% | 1.3192 | N/A N/A | 0.0299 | N/A | | 0.954 | 4.48% | 0.7858 |
| | 2023 | 118,746,129 | 168,895,990 | 142.2% | 65,915 | 89,308,646 | 127,026,221 | 142.2% | 1.3192 | N/A | 0.0337 | N/A | | 0.952 | 4.48% | 0.7521 |
| | 2024 2025 | 112,675,676 106,637,908 | 191,094,820 215,234,554 | 169.6% 201.8% | 63,554 61,134 | 81,109,076 73,471,031 | 137,558,742 148,291,587 | 169.6% 201.8% | 1.3192 1.3192 | N/A N/A | 0.0358 0.0381 | N/A N/A | | 0.949 0.946 | 4.48% 4.48% | 0.7198 0.6890 |
| | 2026 | 100,586,534 | 241,123,676 | 239.7% | 58,657 | 66,329,939 | 159,004,571 | 239.7% | 1.3192 | N/A | 0.0405 | N/A | 0.959 | 0.943 | 4.48% | 0.6594 |
| | 2027 2028 | 94,496,969 88,445,991 | 268,479,267 296,930,547 | 284.1% 335.7% | 56,130 53,558 | 59,642,092 53,429,164 | 169,451,628 179,372,188 | 284.1% 335.7% | 1.3192 1.3192 | N/A N/A | 0.0431 0.0458 | N/A N/A | | 0.939 0.936 | 4.48% 4.48% | 0.6312 0.6041 |
| | 2028 | 82,418,864 | 326,101,679 | 395.7% | 50,948 | 47,653,202 | 188,546,511 | 395.7% | 1.3192 | N/A N/A | 0.0438 | N/A N/A | | 0.930 | 4.48% | 0.5782 |
| | 2030 | 76,482,893 | 355,462,771 | 464.8% | 48,309 | 42,324,809 | 196,709,269 | 464.8% | 1.3192 | N/A | 0.0518 | N/A | | 0.928 | 4.48% | 0.5534 |
| | 2031 2032 | 70,671,851 65,008,418 | 384,246,110 411,916,591 | 543.7% 633.6% | 45,652 42,985 | 37,431,946 32,955,718 | 203,519,216 208,819,217 | 543.7% 633.6% | 1.3192 1.3192 | N/A N/A | 0.0550 0.0584 | N/A N/A | | 0.924 0.920 | 4.48% 4.48% | 0.5297 0.5069 |
| | 2033 | 59,484,729 | 437,783,806 | 736.0% | 40,323 | 28,862,364 | 212,415,453 | 736.0% | 1.3192 | N/A | 0.0619 | N/A | | 0.915 | 4.48% | 0.4852 |
| | 2034 | 54,159,315 | 461,330,296 | 851.8% | 37,677 | 25,151,554 | 214,241,514 | 851.8% | 1.3192 | N/A | 0.0656 | N/A N/A | | 0.910 | 4.48% 4.48% | 0.4644 |
| | 2035 2036 | 49,049,444 44,177,461 | 481,879,837 498,602,833 | 982.4% 1128.6% | 35,061 32,489 | 21,801,731 18,794,158 | 214,188,251 212,117,680 | 982.4% 1128.6% | 1.3192 1.3192 | N/A N/A | 0.0694 0.0734 | N/A N/A | | 0.906 0.901 | 4.48% 4.48% | 0.4445 0.4254 |
| | 2037 | 39,564,844 | 511,501,927 | 1292.8% | 29,973 | 16,110,047 | 208,273,798 | 1292.8% | 1.3192 | N/A | 0.0774 | N/A | | 0.896 | 4.48% | 0.4072 |
| | 2038 2039 | 35,217,423 31,168,079 | 519,859,372 523,278,681 | 1476.1% 1678.9% | 27,528 25,165 | 13,724,931 11,625,935 | 202,599,551 195,186,996 | 1476.1% 1678.9% | 1.3192 1.3192 | N/A N/A | 0.0816 0.0858 | N/A N/A | | 0.890 0.885 | 4.48% 4.48% | 0.3897 0.3730 |
| | 2040 | 27,424,495 | 522,024,873 | 1903.5% | 22,898 | 9,790,880 | 186,369,256 | 1903.5% | 1.3192 | N/A | 0.0901 | N/A | | 0.880 | 4.48% | 0.3570 |
| | 2041 | 23,985,327 | 516,192,243 | 2152.1% | 20,736 | 8,195,849 | 176,384,243 | 2152.1% | 1.3192 | N/A | | N/A | | 0.875 | 4.48% | 0.3417 |
| | 2042 2043 | 20,849,083 18,013,729 | 506,078,667 492,004,606 | 2427.3% 2731.3% | 18,687 16,759 | 6,818,683 5,638,745 | 165,512,798 154,009,658 | 2427.3% 2731.3% | 1.3192 1.3192 | N/A N/A | 0.0988 0.1032 | N/A N/A | | 0.869 0.864 | 4.48% 4.48% | 0.3270 0.3130 |
| | 2044 | 15,470,444 | 474,305,296 | 3065.9% | 14,957 | 4,634,969 | 142,102,592 | 3065.9% | 1.3192 | N/A | 0.1075 | N/A | 0.892 | 0.859 | 4.48% | 0.2996 |
| | 2045 2046 | 13,207,691 11,207,563 | 453,519,910 430,064,182 | 3433.8% 3837.3% | 13,284 11,740 | 3,787,356 3,075,996 | 130,048,582 118,034,176 | 3433.8% 3837.3% | 1.3192 1.3192 | N/A N/A | 0.1119 0.1162 | N/A N/A | | 0.854 0.849 | 4.48% 4.48% | 0.2868 0.2745 |
| | 2047 | 9,451,065 | 404,593,773 | 4280.9% | 10,325 | 2,482,679 | 106,281,807 | 4280.9% | 1.3192 | N/A | 0.1205 | N/A | | 0.843 | 4.48% | 0.2627 |
| | 2048 | 7,919,545 | 377,598,291 | 4767.9% | 9,036 | 1,991,156 | 94,936,889 | 4767.9% | 1.3192 | N/A | 0.1248 | N/A | | 0.838 | 4.48% | 0.2514 |
| | 2049 2050 | 6,597,678 5,463,817 | 349,789,914 321,640,513 | 5301.7% 5886.7% | 7,870 6,822 | 1,587,674 1,258,437 | 84,173,909 74,080,891 | 5301.7% 5886.7% | 1.3192 1.3192 | N/A N/A | 0.1290 0.1332 | N/A N/A | | 0.833 0.828 | 4.48% 4.48% | 0.2406 0.2303 |
| | 2051 | 4,499,034 | 293,560,938 | 6525.0% | 5,885 | 991,791 | 64,714,105 | 6525.0% | 1.3192 | N/A | 0.1373 | N/A | | 0.823 | 4.48% | 0.2204 |
| | 2052 2053 | 3,685,389 3,003,168 | 266,112,885 239,464,346 | 7220.8% 7973.7% | 5,053 4,318 | 777,587 606,472 | 56,147,681 48,358,411 | 7220.8% 7973.7% | 1.3192 1.3192 | N/A N/A | 0.1414 0.1455 | N/A N/A | | 0.819 0.815 | 4.48% 4.48% | 0.2110 0.2019 |
| | 2054 | 2,435,116 | 213,887,334 | 8783.5% | 3,673 | 470,669 | 41,341,046 | 8783.5% | 1.3192 | N/A | 0.1493 | N/A | | 0.811 | 4.48% | 0.1933 |
| | 2055 | 1,965,041 | 189,761,553 | 9656.9% | 3,111 | 363,524 | 35,105,071 | 9656.9% | 1.3192 | N/A | 0.1531 | N/A | | 0.807 | 4.48% | 0.1850 |
| | 2056 2057 | 1,578,525 1,263,074 | 167,186,086 146,404,645 | 10591.3% 11591.1% | 2,623 2,201 | 279,498 214,053 | 29,602,405 24,811,154 | 10591.3% 11591.1% | 1.3192 1.3192 | N/A N/A | 0.1567 0.1610 | N/A N/A | | 0.803 0.800 | 4.48% 4.48% | 0.1771 0.1695 |
| | 2058 | 1,006,980 | 127,391,693 | 12650.9% | 1,840 | 163,335 | 20,663,242 | 12650.9% | 1.3192 | N/A | 0.1638 | N/A | 0.836 | 0.797 | 4.48% | 0.1622 |
| | 2059 2060 | 800,158 633,781 | 110,247,165 94,890,137 | 13778.2% 14972 1% | 1,533 1,273 | 124,222 94,173 | 17,115,517 14,099,668 | 13778.2% 14972 1% | 1.3192 1.3192 | N/A N/A | | N/A N/A | | 0.795 0.792 | 4.48% 4.48% | |
| | 2061 | 500,509 | 81,219,156 | 16227.3% | 1,053 | 71,181 | 11,550,786 | 16227.3% | 1.3192 | N/A | 0.1728 | N/A | 0.827 | 0.790 | 4.48% | 0.1422 |
| | 2062 | 394,113 | 69,163,571 | 17549.2% | 868 | 53,646 | 9,414,466 | 17549.2% | 1.3192 | | 0.1758 | N/A | | 0.787 | 4.48% | 0.1361 |
| | 2063 2064 | 309,606 242,766 | 58,619,460 49,473,441 | 18933.5% 20379.1% | 713 584 | 40,336 30,272 | 7,637,045 6,169,087 | 18933.5% 20379.1% | 1.3192 1.3192 | N/A N/A | 0.1784 0.1815 | N/A N/A | | 0.786 0.784 | 4.48% 4.48% | 0.1303 0.1247 |
| | 2065 | 190,130 | 41,591,051 | 21875.1% | 476 | 22,692 | 4,963,796 | 21875.1% | 1.3192 | N/A | 0.1840 | N/A | 0.816 | 0.783 | 4.48% | 0.1193 |
| | 2066 2067 | 148,668 115,784 | 34,783,856 28,979,364 | 23397.1% 25028.8% | 388 315 | 16,982 12,659 | 3,973,351 3,168,351 | 23397.1% 25028.8% | 1.3192 1.3192 | N/A N/A | 0.1860 0.1881 | N/A N/A | | 0.782 0.779 | 4.48% 4.48% | 0.1142 0.1093 |
| | 2068 | 89,999 | 24,021,115 | 26690.6% | 255 | 9,418 | 2,513,639 | 26690.6% | 1.3192 | N/A N/A | 0.1911 | N/A | | 0.777 | 4.48% | 0.1093 |
| | 2069 | 69,928 54,337 | 19,815,376 | 28336.9% | 205 | 7,004 | 1,984,620 | 28336.9% | 1.3192 | N/A | 0.1938 | N/A | | 0.777 | 4.48% | 0.1002 |
| | 2070 2071 | 54,227 41,941 | 16,271,869 13,298,598 | 30007.1% 31707.8% | 165 132 | 5,198 3,848 | 1,559,831 1,220,145 | 30007.1% 31707.8% | 1.3192 1.3192 | N/A N/A | 0.1969 0.2014 | N/A N/A | | 0.775 0.773 | 4.48% 4.48% | 0.0959 0.0917 |
| | 2072 | 32,255 | 10,854,492 | 33652.3% | 105 | 2,832 | 953,192 | 33652.3% | 1.3192 | N/A | 0.2045 | N/A | 0.796 | 0.769 | 4.48% | 0.0878 |
| | 2073 2074 | 24,716 18,956 | 8,841,082 7,195,769 | 35770.8% 37960.9% | 83 65 | 2,077 1,525 | 743,090 578,866 | 35770.8% 37960.9% | 1.3192 1.3192 | N/A N/A | 0.2095 0.2105 | N/A N/A | | 0.766 0.767 | 4.48% 4.48% | 0.0840 0.0804 |
| | 2074 | 14,501 | 5,841,797 | 40284.9% | 65 51 | 1,525 1,117 | 449,793 | 40284.9% | 1.3192 | N/A N/A | | N/A N/A | | 0.767 | 4.48% 4.48% | 0.0804 |
| | 2076 | 11,064 | 4,736,457 | 42811.5% | 40 | 815 | 349,048 | 42811.5% | 1.3192 | | 0.2191 | N/A | | 0.763 | 4.48% | 0.0737 |
| | 2077-2097 | 28,016 | 15,749,551 | 56216.5% | 31 | 1,976 | 1,110,875 | 56216.5% | 1.3192 | N/A | 0.2213 | N/A | 0.779 | N/A | 4.48% | 0.0705 |
| | Past | 2,490,270,774 | 343,590,556 | 13.8% | 1,156,543 | 3,350,986,584 | 415,027,753 | 12.4% | | | | | | | | |
| | Future Lifetime | 2,248,953,362 4,739,224,136 | 14,142,289,682 14,485,880,238 | 628.8% 305.7% | 1,406,737 2,563,280 | 1,513,390,958 4,864,377,542 | 5,591,615,106 6,006,642,859 | 369.5% 123.5% | | | | | | | | |
| Note: | 5 | .,. 55,22 T, 100 | , .55,555,256 | 555.1 /0 | _,555,255 | .,551,511,072 | 5,555,572,000 | 0.0 /0 | | | | | | | | |

⁻ The premiums are normalized to reflect prior authorized increase by Maryland instead of rate action authorized by other state.
- The 1st round authorized increase of 15% was implemented from Febuary 2010 through January 2011 and the 2nd round authorized increase of 15% was implemented from June 2016 through May 2017.
- The projections are based on the assumptions derived using experience data through 6/30/2016.

Exhibit I-A

Metropolitan Life Insurance Company Nationwide Experience Projections (Premium Normalized to Include Prior Authorized Increases) and With 32.25% Future Increase Policy Forms: LTC-FAC, LTC- VAL, LTC-IDEAL and LTC- PREM

| | F | \\ | ithout Interest | Loss Ra | atio Demonst | ration | With Interest | | | ors Derived fro | om Projected Values | | | nly | Interest Rat | te Factors Mid-Year |
|----------------------|--------------------|--------------------------------|----------------------------------|----------------------|------------------------|--------------------------------|--------------------------------|----------------------|--------------------------|------------------|---------------------|-------------------------|----------------|----------------|----------------------------|------------------------------|
| | Calendar | Earned | Incurred | Loss | Life | Earned | Incurred | Loss | Premium Rate Increase | Benefit | Policy | Persistency F Policy | Policy | Premium | Calendar Year Effective | Disc / Accum |
| | Year 1998 | Premium - | Claims | Ratio N/A | Years | Premium - | Claims - | Ratio N/A | Factor | Downgrade | Lapse & Mortality | Shock Lapse | Persistency | Persistency | Int Rate 4.48% | Factor 2.2498 |
| | 1999 | - | - | N/A | - | - | - | N/A | | | | | | | 4.48% | 2.1533 |
| | 2000 | - | - | N/A | - | - | - | N/A | | | | | | | 4.48% | 2.0610 |
| | 2001 2002 | - 1,496,379 | - | N/A 0.0% | 3,208 | - 2,825,177 | - | N/A 0.0% | | | | | | | 4.48% 4.48% | 1.9726 1.8880 |
| | 2003 | 22,339,571 | 179,109 | 0.8% | 20,902 | 40,368,641 | 323,658 | 0.8% | | | | | | | 4.48% | 1.8070 |
| interior | 2004 | 82,618,065 | 1,210,252 | 1.5% | 57,671 | 142,892,539 | 2,093,199 | 1.5% | | | | | | | 4.48% | 1.7296 |
| storical perience | 2005 2006 | 184,350,022 225,053,606 | 6,828,973 9,417,184 | 3.7% 4.2% | 100,020 100,233 | 305,170,793 356,575,077 | 11,304,599 14,920,592 | 3.7% 4.2% | | | | | | | 4.48% 4.48% | 1.6554 1.5844 |
| | 2007 | 214,075,039 | 16,422,844 | 7.7% | 97,473 | 324,635,700 | 24,904,546 | 7.7% | | | | | | | 4.48% | 1.5165 |
| | 2008 2009 | 206,128,039 195,930,837 | 16,409,501 20,225,873 | 8.0% 10.3% | 94,603 91,475 | 299,179,997 272,184,578 | 23,817,208 28,097,521 | 8.0% 10.3% | | | | | | | 4.48% 4.48% | 1.4514 1.3892 |
| | 2010 | 212,251,681 | 23,805,795 | 11.2% | 88,725 | 282,213,053 | 31,652,546 | 11.2% | | | | | | | 4.48% | 1.3296 |
| | 2011 | 223,191,685 | 25,160,180 | 11.3% | 86,549 | 284,033,265 | 32,018,791 | 11.3% | | | | | | | 4.48% | 1.2726 |
| | 2012 2013 | 217,286,403 209,279,626 | 28,607,858 32,841,502 | 13.2% 15.7% | 85,430 84,877 | 264,660,412 243,976,850 | 34,845,104 38,286,413 | 13.2% 15.7% | | | | | | | 4.48% 4.48% | 1.2180 1.1658 |
| | 2014 | 188,906,020 | 44,262,258 | 23.4% | 82,915 | 210,781,604 | 49,387,890 | 23.4% | | | | | | | 4.48% | 1.1158 |
| | 2015 | 159,728,244 | 55,400,216 | 34.7% | 81,772 | 170,582,259 | 59,164,828 | 34.7% | | | | | | | 4.48% | 1.0680 |
| ojected | 2016 2017 | 147,635,557 153,484,329 | 62,819,010 78,098,843 | 42.6% 50.9% | 80,690 78,756 | 150,906,640 150,157,372 | 64,210,858 76,405,957 | 42.6% 50.9% | 1.3096 | 1.0000 | 0.0240 | 1.0000 | 0.976 | 0.949 | 4.48% 4.48% | 1.0222 0.9783 |
| uture | 2018 | 148,713,703 | 88,543,181 | 59.5% | 76,768 | 139,251,167 | 82,909,248 | 59.5% | 1.3192 | 1.0000 | 0.0253 | 1.0000 | 0.975 | 0.962 | 4.48% | 0.9364 |
| perience | 2019 | 148,962,859 153,980,120 | 96,631,693 106,787,077 | 64.9% 69.4% | 72,990 60,713 | 133,503,021 132,081,801 | 86,602,949 | 64.9% 69.4% | 1.4339 | 0.9826 0.9700 | 0.0492 | 0.9768 0.9600 | 0.951 0.955 | 0.960 0.958 | 4.48% 4.48% | 0.8962 0.8578 |
| | 2020 2021 | 160,721,390 | 121,671,784 | 75.7% | 69,713 67,630 | 131,952,386 | 91,600,328 99,892,629 | 75.7% | 1.5953 1.7415 | 0.9700 | 0.0449 0.0299 | 0.9600 | 0.955 | 0.956 | 4.48% 4.48% | 0.8210 |
| | 2022 | 153,633,544 | 138,501,213 | 90.2% | 65,485 | 120,724,344 | 108,833,446 | 90.2% | 1.7446 | 0.9700 | 0.0317 | 0.9600 | 0.968 | 0.954 | 4.48% | 0.7858 |
| | 2023 2024 | 146,237,283 138,761,447 | 157,275,945 177,947,496 | 107.5% 128.2% | 63,279 61,012 | 109,984,669 99,886,800 | 118,286,817 128,094,700 | 107.5% 128.2% | 1.7446 1.7446 | 0.9700 0.9700 | 0.0337 0.0358 | 0.9600 0.9600 | 0.966 0.964 | 0.952 0.949 | 4.48% 4.48% | 0.752° 0.7198 |
| | 2025 | 131,325,863 | 200,426,417 | 152.6% | 58,688 | 90,480,456 | 138,089,125 | 152.6% | 1.7446 | 0.9700 | 0.0381 | 0.9600 | 0.962 | 0.946 | 4.48% | 0.6890 |
| | 2026 | 123,873,524 | 224,534,367 | 181.3% | 56,311 53,885 | 81,686,116 73,449,952 | 148,065,057 | 181.3% | 1.7446 1.7446 | 0.9700 0.9700 | 0.0405 | 0.9600 | 0.959 | 0.943 | 4.48% 4.48% | 0.6594 |
| | 2027 2028 | 116,374,151 108,922,299 | 250,007,894 276,501,725 | 214.8% 253.9% | 53,885 51,415 | 73,449,952 65,798,657 | 157,793,356 167,031,382 | 214.8% 253.9% | 1.7446 1.7446 | 0.9700 | 0.0431 0.0458 | 0.9600 0.9600 | 0.957 0.954 | 0.939 0.936 | 4.48% 4.48% | 0.6312 0.6041 |
| | 2029 | 101,499,820 | 303,665,883 | 299.2% | 48,910 | 58,685,490 | 175,574,511 | 299.2% | 1.7446 | 0.9700 | 0.0487 | 0.9600 | 0.951 | 0.932 | 4.48% | 0.5782 |
| | 2030 2031 | 94,189,601 87,033,232 | 331,006,932 357,809,978 | 351.4% 411.1% | 46,377 43,826 | 52,123,511 46,097,890 | 183,175,671 189,517,094 | 351.4% 411.1% | 1.7446 1.7446 | 0.9700 0.9700 | 0.0518 0.0550 | 0.9600 0.9600 | 0.948 0.945 | 0.928 0.924 | 4.48% 4.48% | 0.553 ² 0.5297 |
| | 2032 | 80,058,646 | 383,576,730 | 479.1% | 41,266 | 40,585,362 | 194,452,455 | 479.1% | 1.7446 | 0.9700 | 0.0584 | 0.9600 | 0.943 | 0.924 | 4.48% | 0.5069 |
| | 2033 | 73,256,157 | 407,664,280 | 556.5% | 38,710 | 35,544,348 | 197,801,269 | 556.5% | 1.7446 | 0.9700 | 0.0619 | 0.9600 | 0.938 | 0.915 | 4.48% | 0.4852 |
| | 2034 2035 | 66,697,847 60,404,979 | 429,590,772 448,726,504 | 644.1% 742.9% | 36,170 33,659 | 30,974,440 26,849,094 | 199,501,698 199,452,099 | 644.1% 742.9% | 1.7446 1.7446 | 0.9700 0.9700 | 0.0656 0.0694 | 0.9600 0.9600 | 0.934 0.931 | 0.910 0.906 | 4.48% 4.48% | 0.4644 0.4445 |
| | 2036 | 54,405,073 | 464,298,958 | 853.4% | 31,189 | 23,145,231 | 197,523,984 | 853.4% | 1.7446 | 0.9700 | 0.0734 | 0.9600 | 0.927 | 0.901 | 4.48% | 0.4254 |
| | 2037 2038 | 48,724,580 43,370,679 | 476,310,594 484,093,047 | 977.6% 1116.2% | 28,774 26,427 | 19,839,717 16,902,417 | 193,944,561 188,660,702 | 977.6% 1116.2% | 1.7446 1.7446 | 0.9700 0.9700 | 0.0774 0.0816 | 0.9600 0.9600 | 0.923 0.918 | 0.896 0.890 | 4.48% 4.48% | 0.4072 0.3897 |
| | 2039 | 38,383,863 | 487,277,107 | 1269.5% | 24,159 | 14,317,478 | 181,758,130 | 1269.5% | 1.7446 | 0.9700 | 0.0858 | 0.9600 | 0.916 | 0.885 | 4.48% | 0.3697 |
| | 2040 | 33,773,595 | 486,109,561 | 1439.3% | 21,982 | 12,057,586 | 173,547,051 | 1439.3% | 1.7446 | 0.9700 | 0.0901 | 0.9600 | 0.910 | 0.880 | 4.48% | 0.3570 |
| | 2041 2042 | 29,538,218 25,675,896 | 480,678,217 471,260,455 | 1627.3% 1835.4% | 19,906 17,940 | 10,093,287 8,397,290 | 164,249,008 154,125,518 | 1627.3% 1835.4% | 1.7446 1.7446 | 0.9700 0.9700 | 0.0944 0.0988 | 0.9600 0.9600 | 0.906 0.901 | 0.875 0.869 | 4.48% 4.48% | 0.3417 0.3270 |
| | 2043 | 22,184,124 | 458,154,689 | 2065.2% | 16,089 | 6,944,182 | 143,413,793 | 2065.2% | 1.7446 | 0.9700 | 0.1032 | 0.9600 | 0.897 | 0.864 | 4.48% | 0.3130 |
| | 2044 2045 | 19,052,037 16,265,430 | 441,673,092 422,317,741 | 2318.2% 2596.4% | 14,359 12,753 | 5,708,020 4,664,175 | 132,325,933 | 2318.2% 2596.4% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1075 0.1119 | 0.9600 0.9600 | 0.892 0.888 | 0.859 0.854 | 4.48% 4.48% | 0.2996 0.2868 |
| | 2045 | 13,802,249 | 400,475,766 | 2901.5% | 11,270 | 3,788,125 | 121,101,239 109,913,425 | 2901.5% | 1.7446 | 0.9700 | 0.1162 | 0.9600 | 0.884 | 0.834 | 4.48% | 0.2745 |
| | 2047 | 11,639,100 | 376,757,721 | 3237.0% | 9,912 | 3,057,448 | 98,969,619 | 3237.0% | 1.7446 | 0.9700 | 0.1205 | 0.9600 | 0.879 | 0.843 | 4.48% | 0.2627 |
| | 2048 2049 | 9,753,015 8,125,120 | 351,619,529 325,724,368 | 3605.2% 4008.9% | 8,675 7,555 | 2,452,132 1,955,240 | 88,405,231 78,382,744 | 3605.2% 4008.9% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1248 0.1290 | 0.9600 0.9600 | 0.875 0.871 | 0.838 0.833 | 4.48% 4.48% | 0.251 ² 0.2406 |
| | 2050 | 6,728,756 | 299,511,646 | 4451.2% | 6,549 | 1,549,781 | 68,984,125 | 4451.2% | 1.7446 | 0.9700 | 0.1332 | 0.9600 | 0.867 | 0.828 | 4.48% | 0.2303 |
| | 2051 | 5,540,615 | 273,363,945 | 4933.8% | 5,650 | 1,221,402 | 60,261,775 | 4933.8% | 1.7446 | 0.9700 | 0.1373 | 0.9600 | 0.863 | 0.823 | 4.48% | 0.2204 |
| | 2052 2053 | 4,538,601 3,698,437 | 247,804,319 222,989,199 | 5459.9% 6029.3% | 4,851 4,145 | 957,608 746,878 | 52,284,721 45,031,352 | 5459.9% 6029.3% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1414 0.1455 | 0.9600 0.9600 | 0.859 0.855 | 0.819 0.815 | 4.48% 4.48% | 0.2110 0.2019 |
| | 2054 | 2,998,874 | 199,171,885 | 6641.6% | 3,526 | 579,635 | 38,496,782 | 6641.6% | 1.7446 | 0.9700 | 0.1493 | 0.9600 | 0.851 | 0.811 | 4.48% | 0.1933 |
| | 2055 2056 | 2,419,972 1,943,973 | 176,705,959 155,683,683 | 7302.0% 8008.5% | 2,986 2,518 | 447,684 344,205 | 32,689,843 27,565,760 | 7302.0% 8008.5% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1531 0.1567 | 0.9600 0.9600 | 0.847 0.843 | 0.807 0.803 | 4.48% 4.48% | 0.1850 0.1771 |
| | 2057 | 1,555,491 | 136,332,005 | 8764.6% | 2,113 | 263,609 | 23,104,147 | 8764.6% | 1.7446 | 0.9700 | 0.1610 | 0.9600 | 0.839 | 0.800 | 4.48% | 0.1695 |
| | 2058 | 1,240,108 | 118,627,144 | 9565.9% | 1,767 | 201,148 | 19,241,611 | 9565.9% | 1.7446 | 0.9700 | 0.1638 | 0.9600 | 0.836 | 0.797 | 4.48% | 0.1622 |
| | 2059 2060 | 985,404 780,509 | 102,662,160 88,361,696 | 10418.3% 11321.0% | 1,472 1,222 | 152,981 115,975 | 15,937,969 13,129,611 | 10418.3% 11321.0% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1669 0.1699 | 0.9600 0.9600 | 0.833 0.830 | 0.795 0.792 | 4.48% 4.48% | 0.1552 0.1486 |
| | 2061 | 616,382 | 75,631,278 | 12270.2% | 1,011 | 87,660 | 10,756,092 | 12270.2% | 1.7446 | 0.9700 | 0.1728 | 0.9600 | 0.827 | 0.790 | 4.48% | 0.1422 |
| | 2062 2063 | 485,355 381,284 | 64,405,117 54,586,442 | 13269.7% 14316.5% | 833 685 | 66,066 49,674 | 8,766,751 7,111,616 | 13269.7% 14316.5% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1758 0.1784 | 0.9600 0.9600 | 0.824 0.822 | 0.787 0.786 | 4.48% 4.48% | 0.136 0.130 |
| | 2063 | 298,969 | 46,069,668 | 15409.5% | 685 560 | 37,280 | 5,744,654 | 15409.5% | 1.7446 | 0.9700 | 0.1784 | 0.9600 | 0.822 | 0.786 | 4.48% 4.48% | 0.130 |
| | 2065 | 234,147 | 38,729,587 | 16540.7% | 457 | 27,945 | 4,622,287 | 16540.7% | 1.7446 | 0.9700 | 0.1840 | 0.9600 | 0.816 | 0.783 | 4.48% | 0.119 |
| | 2066 2067 | 183,086 142,589 | 32,390,727 26,985,583 | 17691.5% 18925.4% | 372 302 | 20,914 15,589 | 3,699,985 2,950,369 | 17691.5% 18925.4% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1860 0.1881 | 0.9600 0.9600 | 0.814 0.812 | 0.782 0.779 | 4.48% 4.48% | 0.114 0.109 |
| | 2068 | 110,834 | 22,368,463 | 20181.9% | 244 | 11,598 | 2,340,701 | 20181.9% | 1.7446 | 0.9700 | 0.1911 | 0.9600 | 0.809 | 0.777 | 4.48% | 0.104 |
| | 2069 | 86,117 | 18,452,079 | 21426.8% | 197 | 8,625 | 1,848,078 | 21426.8% | 1.7446 | 0.9700 | 0.1938 | 0.9600 | 0.806 | 0.777 | 4.48% | 0.100 |
| | 2070 2071 | 66,781 51,651 | 15,152,365 12,383,654 | 22689.7% 23975.7% | 158 126 | 6,402 4,739 | 1,452,515 1,136,199 | 22689.7% 23975.7% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1969 0.2014 | 0.9600 0.9600 | 0.803 0.799 | 0.775 0.773 | 4.48% 4.48% | 0.095 0.091 |
| | 2072 | 39,722 | 10,107,703 | 25446.0% | 101 | 3,488 | 887,612 | 25446.0% | 1.7446 | 0.9700 | 0.2045 | 0.9600 | 0.796 | 0.769 | 4.48% | 0.087 |
| | 2073 | 30,438 | 8,232,815 | 27047.9% | 79 63 | 2,558 | 691,965 | 27047.9% | 1.7446 | 0.9700 | 0.2095 | 0.9600 | 0.791 | 0.766 | 4.48% | 0.084 |
| | 2074 2075 | 23,344 17,858 | 6,700,700 5,439,881 | 28703.9% 30461.2% | 63 49 | 1,878 1,375 | 539,040 418,847 | 28703.9% 30461.2% | 1.7446 1.7446 | 0.9700 0.9700 | 0.2105 0.2146 | 0.9600 0.9600 | 0.789 0.785 | 0.767 0.765 | 4.48% 4.48% | 0.080 0.077 |
| | 2076 | 13,625 | 4,410,589 | 32371.7% | 38 | 1,004 | 325,034 | 32371.7% | 1.7446 | 0.9700 | 0.2191 | 0.9600 | 0.781 | 0.763 | 4.48% | 0.073 |
| - | 2077-2097 | 34,502 | 14,665,982 | 42507.7% | 30 | 2,434 | 1,034,446 | 42507.7% | 1.7446 | 0.9700 | 0.2213 | 0.9600 | 0.779 | N/A | 4.48% | 0.070 |
| ļ | Past | 2,490,270,774 | 343,590,556 | 13.8% | 1,156,543 | 3,350,986,584 | 415,027,753 | 12.4% | | | | | | | | |
| | Future Lifetime | 2,658,071,196 5,148,341,970 | 13,183,645,833 13,527,236,388 | 496.0% 262.7% | 1,357,945 2,514,488 | 1,760,069,337 5,111,055,921 | 5,220,454,613 5,635,482,366 | 296.6% 110.3% | | | | | | | | |

- The premiums are normalized to reflect prior authorized increase by Maryland instead of rate action authorized by other state.
- The 1st round authorized increase of 15% was implemented from Febuary 2010 through January 2011 and the 2nd round authorized increase of 15% was implemented from June 2016 through May 2017.
- The current requested increases of 32.25% are assumed to be implemented in two phases at 15% each with the 1st phase starting January 2019 and the 2nd phase starting April 2020.
- The projections are based on the assumptions derived using experience data through 6/30/2016.

Exhibit II-A

Demonstration that Lifetime Incurred Claims with Requested Increase are Not Less than Lifetime Earned Premium with Prescribed Factors Policy Forms: LTC-FAC, LTC- VAL, LTC-IDEAL and LTC- PREM

| Accumulated value of initial earned premium | 3,161,306,062 | х | 58% = | 1,833,557,516 |
|--|------------------------------|---|-------|------------------------------|
| 2a Accumulated value of earned premium 2b Accumulated value of prior premium rate schedule increases (2a-1) | 3,350,986,584 189,680,522 | x | 85% = | 161,228,443 |
| 3 Present value of future projected initial earned premium | 1,148,038,458 | х | 58% = | 665,862,306 |
| 4a Present value of future projected premium 4b Present value of future projected premium in excess of the projected initial earned premiums (4a-3) | 1,760,069,337 612,030,879 | x | 85% = | 520,226,247 |
| 5 Lifetime Earned Premium Times Prescribed Factor: Sum of 1, 2b, 3, and 4b | | | | 3,180,874,512 |
| 6a Accumulated value of incurred claims without the inclusion of active life reserves 6b Present value of future projected incurred claims without the inclusion of active life reserves | | | | 415,027,753 5,220,454,613 |
| 7 Lifetime Incurred Claims with Rate Increase: Sum of 6a and 6b | | | | 5,635,482,366 |
| 8 Test: 7 is not less than 5 | | | | TRUE |
| | | | | |

Exhibit I-B

Metropolitan Life Insurance Company Maryland Experience Projections (Premium Normalized to Include Prior Authorized Increases) and With No Future Increase Policy Forms: LTC-FAC, LTC- VAL, LTC-IDEAL and LTC- PREM

| | | \A/ | ithout Interest | Loss Ra | atio Demonst | ration | With Interest | | Fact Premium | ors Derived fro | om Projected Values | for Illustrative | | nly | Interest Rat Calendar Year | te Factors Mid-Year |
|------------|-------------------|------------------------|--------------------------|----------------------|----------------|--------------------------|------------------------|----------------------|------------------|-----------------|---------------------|------------------|----------------|----------------|-------------------------------|------------------------|
| | Calendar | Earned | Incurred | Loss | Life | Earned | Incurred | Loss | Rate Increase | Benefit | Policy | Policy | Policy | Premium | Effective | Disc / Accum |
| | Year 1998 | Premium - | Claims - | Ratio N/A | Years - | Premium - | Claims - | Ratio N/A | Factor | Downgrade | Lapse & Mortality | Shock Lapse | Persistency | Persistency | Int Rate 4.48% | Factor 2.2498 |
| | 1999 | - | - | N/A | - | - | - | N/A | | | | | | | 4.48% | 2.1533 |
| | 2000 2001 | - | - | N/A N/A | - | - | - | N/A N/A | | | | | | | 4.48% 4.48% | 2.0610 1.9726 |
| | 2002 | - | - | N/A | - | - | - | N/A | | | | | | | 4.48% | 1.8880 |
| | 2003 2004 | 378,607 2,186,209 | - | 0.0% 0.0% | 464 1,482 | 684,160 3,781,170 | - | 0.0% 0.0% | | | | | | | 4.48% 4.48% | 1.8070 1.7296 |
| Historical | 2005 | 5,283,833 | 1,157 | 0.0% | 3,009 | 8,746,794 | 1,915 | 0.0% | | | | | | | 4.48% | 1.6554 |
| Experience | 2006 2007 | 7,186,759 6,773,655 | - | 0.0% 0.0% | 3,055 2,950 | 11,386,706 10,271,960 | - | 0.0% 0.0% | | | | | | | 4.48% 4.48% | 1.5844 1.5165 |
| | 2007 | 6,532,215 | 604,682 | 9.3% | 2,869 | 9,481,040 | 877,652 | 9.3% | | | | | | | 4.48% | 1.4514 |
| | 2009 | 6,238,449 | 1,373,874 | 22.0% | 2,759 | 8,666,372 | 1,908,567 | 22.0% | | | | | | | 4.48% | 1.3892 |
| | 2010 2011 | 6,441,093 6,805,244 | 74,327 2,264,423 | 1.2% 33.3% | 2,590 2,528 | 8,564,175 8,660,339 | 98,826 2,881,700 | 1.2% 33.3% | | | | | | | 4.48% 4.48% | 1.3296 1.2726 |
| | 2012 | 6,697,376 | 504,916 | 7.5% | 2,495 | 8,157,575 | 615,000 | 7.5% | | | | | | | 4.48% | 1.2180 |
| | 2013 2014 | 6,598,497 6,230,249 | 685,554 703,160 | 10.4% 11.3% | 2,455 2,417 | 7,692,486 6,951,721 | 799,214 784,587 | 10.4% 11.3% | | | | | | | 4.48% 4.48% | 1.1658 1.1158 |
| | 2015 | 5,328,959 | 1,265,261 | 23.7% | 2,387 | 5,691,078 | 1,351,239 | 23.7% | | | | | | | 4.48% | 1.0680 |
| Projected | 2016 2017 | 4,965,170 5,162,184 | 970,958 2,398,454 | 19.6% 46.5% | 2,369 2,315 | 5,075,180 5,050,288 | 992,471 2,346,465 | 19.6% 46.5% | 1.3096 | N/A | 0.0226 | N/A | 0.977 | 0.949 | 4.48% 4.48% | 1.0222 0.9783 |
| Future | 2018 | 5,022,331 | 2,729,457 | 54.3% | 2,260 | 4,702,764 | 2,555,784 | 54.3% | 1.3192 | N/A | 0.0238 | N/A | 0.976 | 0.966 | 4.48% | 0.9364 |
| Experience | 2019 2020 | 4,835,627 4,652,779 | 3,118,918 3,570,457 | 64.5% 76.7% | 2,204 2,145 | 4,333,770 3,991,083 | 2,795,227 3,062,684 | 64.5% 76.7% | 1.3192 1.3192 | N/A N/A | 0.0251 0.0266 | N/A N/A | 0.975 0.973 | 0.963 0.962 | 4.48% 4.48% | 0.8962 0.8578 |
| | 2021 | 4,462,877 | 4,093,093 | 91.7% | 2,085 | 3,664,025 | 3,360,432 | 91.7% | 1.3192 | N/A | 0.0281 | N/A | 0.972 | 0.959 | 4.48% | 0.8210 |
| | 2022 2023 | 4,274,449 4,066,175 | 4,686,961 5,352,851 | 109.7% 131.6% | 2,022 1,958 | 3,358,837 3,058,159 | 3,682,987 4,025,865 | 109.7% 131.6% | 1.3192 1.3192 | N/A N/A | 0.0299 0.0318 | N/A N/A | 0.970 0.968 | 0.958 0.951 | 4.48% 4.48% | 0.7858 0.7521 |
| | 2024 | 3,868,626 | 6,099,359 | 157.7% | 1,892 | 2,784,813 | 4,390,596 | 157.7% | 1.3192 | N/A | 0.0338 | N/A | 0.966 | 0.951 | 4.48% | 0.7198 |
| | 2025 2026 | 3,673,877 3,482,119 | 6,920,863 7,811,150 | 188.4% 224.3% | 1,824 1,754 | 2,531,216 2,296,219 | 4,768,313 5,150,919 | 188.4% 224.3% | 1.3192 1.3192 | N/A N/A | 0.0360 0.0383 | N/A N/A | 0.964 0.962 | 0.950 0.948 | 4.48% 4.48% | 0.6890 0.6594 |
| | 2027 | 3,282,661 | 8,760,844 | 266.9% | 1,683 | 2,071,863 | 5,529,438 | 266.9% | 1.3192 | N/A N/A | 0.0408 | N/A | 0.959 | 0.943 | 4.48% | 0.6312 |
| | 2028 2029 | 3,081,982 2,884,674 | 9,759,127 10,802,300 | 316.7% 374.5% | 1,609 1,535 | 1,861,789 1,667,870 | 5,895,372 6,245,708 | 316.7% 374.5% | 1.3192 1.3192 | N/A N/A | 0.0435 0.0463 | N/A N/A | 0.957 0.954 | 0.939 0.936 | 4.48% 4.48% | 0.6041 0.5782 |
| | 2029 | 2,687,929 | 11,857,501 | 441.1% | 1,459 | 1,487,471 | 6,561,813 | 441.1% | 1.3192 | N/A N/A | 0.0463 | N/A N/A | 0.954 | 0.930 | 4.48% | 0.5782 |
| | 2031 | 2,491,598 | 12,899,072 | 517.7% | 1,383 | 1,319,696 | 6,832,103 | 517.7% | 1.3192 | N/A | 0.0524 | N/A | 0.948 | 0.927 | 4.48% | 0.5297 |
| | 2032 2033 | 2,299,240 2,113,904 | 13,918,025 14,883,652 | 605.3% 704.1% | 1,306 1,228 | 1,165,589 1,025,679 | 7,055,679 7,221,642 | 605.3% 704.1% | 1.3192 1.3192 | N/A N/A | 0.0558 0.0592 | N/A N/A | 0.944 0.941 | 0.923 0.919 | 4.48% 4.48% | 0.5069 0.4852 |
| | 2034 | 1,934,544 | 15,776,479 | 815.5% | 1,151 | 898,401 | 7,326,588 | 815.5% | 1.3192 | N/A | 0.0629 | N/A | 0.937 | 0.915 | 4.48% | 0.4644 |
| | 2035 2036 | 1,761,385 1,595,128 | 16,573,896 17,242,931 | 941.0% 1081.0% | 1,074 999 | 782,909 678,606 | 7,366,844 7,335,559 | 941.0% 1081.0% | 1.3192 1.3192 | N/A N/A | 0.0666 0.0706 | N/A N/A | 0.933 0.929 | 0.910 0.906 | 4.48% 4.48% | 0.4445 0.4254 |
| | 2037 | 1,436,639 | 17,787,610 | 1238.1% | 924 | 584,972 | 7,242,774 | 1238.1% | 1.3192 | N/A | 0.0745 | N/A | 0.925 | 0.901 | 4.48% | 0.4072 |
| | 2038 2039 | 1,286,520 1,145,792 | 18,171,121 18,401,997 | 1412.4% 1606.1% | 851 781 | 501,382 427,389 | 7,081,648 6,864,087 | 1412.4% 1606.1% | 1.3192 1.3192 | N/A N/A | 0.0787 0.0828 | N/A N/A | 0.921 0.917 | 0.896 0.891 | 4.48% 4.48% | 0.3897 0.3730 |
| | 2040 | 1,014,755 | 18,455,469 | 1818.7% | 713 | 362,280 | 6,588,828 | 1818.7% | 1.3192 | N/A | 0.0871 | N/A | 0.913 | 0.886 | 4.48% | 0.3570 |
| | 2041 2042 | 893,670 782,788 | 18,337,852 18,087,493 | 2052.0% 2310.6% | 648 586 | 305,369 256,011 | 6,266,092 5,915,506 | 2052.0% 2310.6% | 1.3192 1.3192 | N/A N/A | 0.0913 0.0957 | N/A N/A | 0.909 0.904 | 0.881 0.876 | 4.48% 4.48% | 0.3417 0.3270 |
| | 2043 | 681,750 | 17,698,446 | 2596.0% | 527 | 213,405 | 5,540,053 | 2596.0% | 1.3192 | N/A | 0.1000 | N/A | 0.900 | 0.871 | 4.48% | 0.3130 |
| | 2044 2045 | 590,498 508,785 | 17,161,039 16,535,257 | 2906.2% 3250.0% | 472 421 | 176,914 145,896 | 5,141,473 4,741,549 | 2906.2% 3250.0% | 1.3192 1.3192 | N/A N/A | 0.1043 0.1086 | N/A N/A | 0.896 0.891 | 0.866 0.862 | 4.48% 4.48% | 0.2996 0.2868 |
| | 2046 | 435,998 | 15,809,894 | 3626.1% | 373 | 119,663 | 4,339,138 | 3626.1% | 1.3192 | N/A | 0.1129 | N/A | 0.887 | 0.857 | 4.48% | 0.2745 |
| | 2047 2048 | 371,573 314,916 | 14,997,248 14,123,051 | 4036.2% 4484.7% | 330 290 | 97,608 79,177 | 3,939,592 3,550,860 | 4036.2% 4484.7% | 1.3192 1.3192 | N/A N/A | 0.1173 0.1215 | N/A N/A | 0.883 0.879 | 0.852 0.848 | 4.48% 4.48% | 0.2627 0.2514 |
| | 2049 | 265,633 | 13,194,825 | 4967.3% | 253 | 63,922 | 3,175,220 | 4967.3% | 1.3192 | N/A | 0.1257 | N/A | 0.874 | 0.844 | 4.48% | 0.2406 |
| | 2050 2051 | 223,126 186,432 | 12,250,364 11,280,121 | 5490.3% 6050.5% | 220 191 | 51,391 41,098 | 2,821,529 2,486,649 | 5490.3% 6050.5% | 1.3192 1.3192 | N/A N/A | 0.1299 0.1341 | N/A N/A | 0.870 0.866 | 0.840 0.836 | 4.48% 4.48% | 0.2303 0.2204 |
| | 2052 | 155,175 | 10,327,201 | 6655.2% | 164 | 32,741 | 2,178,956 | 6655.2% | 1.3192 | N/A | 0.1381 | N/A | 0.862 | 0.832 | 4.48% | 0.2110 |
| | 2053 2054 | 128,666 106,287 | 9,405,654 8,489,970 | 7310.1% 7987.8% | 141 120 | 25,983 20,544 | 1,899,416 1,640,977 | 7310.1% 7987.8% | 1.3192 1.3192 | N/A N/A | 0.1423 0.1464 | N/A N/A | 0.858 0.854 | 0.829 0.826 | 4.48% 4.48% | 0.2019 0.1933 |
| | 2055 | 87,485 | 7,616,975 | 8706.6% | 102 | 16,184 | 1,409,108 | 8706.6% | 1.3192 | N/A | 0.1503 | N/A | 0.850 | 0.823 | 4.48% | 0.1850 |
| | 2056 2057 | 71,776 58,730 | 6,798,250 6,008,835 | 9471.5% 10231.3% | 87 73 | 12,709 9,953 | 1,203,716 1,018,316 | 9471.5% 10231.3% | 1.3192 1.3192 | N/A N/A | 0.1540 0.1577 | N/A N/A | 0.846 0.842 | 0.820 0.818 | 4.48% 4.48% | 0.1771 0.1695 |
| | 2058 | 47,954 | 5,280,862 | 11012.5% | 61 | 7,778 | 856,569 | 11012.5% | 1.3192 | N/A | 0.1627 | N/A | 0.837 | 0.817 | 4.48% | 0.1622 |
| | 2059 | 39,115 | | | 51 | 6,072 | 716,095 | | 1.3192 1.3192 | N/A | 0.1648 0.1675 | N/A N/A | 0.835 0.832 | 0.816 | 4.48% 4.48% | 0.1552 |
| | 2060 2061 | 31,861 25,942 | 3,997,874 3,442,849 | 12547.9% 13271.5% | 42 35 | 4,734 3,689 | 594,042 489,633 | 13271.5% | 1.3192 | N/A N/A | 0.1675 | N/A N/A | 0.832 | 0.815 0.814 | 4.48% 4.48% | 0.1486 0.1422 |
| | 2062 | 21,123 | 2,949,578 | 13964.1% | 29 | 2,875 | 401,493 | 13964.1% | 1.3192 | N/A | 0.1742 | N/A | 0.826 | 0.814 | 4.48% | 0.1361 |
| | 2063 2064 | 17,208 14,035 | 2,511,657 2,125,781 | 14596.1% 15145.8% | 24 20 | 2,242 1,750 | 327,223 265,074 | 14596.1% 15145.8% | 1.3192 1.3192 | N/A N/A | 0.1756 0.1779 | N/A N/A | 0.824 0.822 | 0.815 0.816 | 4.48% 4.48% | 0.1303 0.1247 |
| | 2065 | 11,486 | 1,793,710 | 15616.7% | 16 | 1,371 | 214,075 | 15616.7% | 1.3192 | N/A | 0.1818 | N/A | 0.818 | 0.818 | 4.48% | 0.1193 |
| | 2066 2067 | 9,428 7,761 | 1,505,815 1,260,194 | 15972.0% 16237.4% | 13 11 | 1,077 849 | 172,009 137,779 | 15972.0% 16237.4% | 1.3192 1.3192 | N/A N/A | 0.1806 0.1841 | N/A N/A | 0.819 0.816 | 0.821 0.823 | 4.48% 4.48% | 0.1142 0.1093 |
| | 2068 | 6,402 | 1,050,356 | 16406.9% | 9 | 670 | 109,912 | 16406.9% | 1.3192 | N/A | 0.1857 | N/A | 0.814 | 0.825 | 4.48% | 0.1046 |
| | 2069 2070 | 5,289 4,375 | 875,057 723,484 | 16546.3% 16538.3% | 7 6 | 530 419 | 87,642 69,354 | 16546.3% 16538.3% | 1.3192 1.3192 | N/A N/A | 0.1893 0.1842 | N/A N/A | 0.811 0.816 | 0.826 0.827 | 4.48% 4.48% | 0.1002 0.0959 |
| | 2071 | 3,616 | 598,420 | 16547.7% | 5 | 332 | 54,905 | 16547.7% | 1.3192 | N/A | 0.1879 | N/A | 0.812 | 0.827 | 4.48% | 0.0917 |
| | 2072 2073 | 2,984 2,460 | 492,519 408,513 | 16503.6% 16603.7% | 4 2 | 262 207 | 43,251 34,335 | 16503.6% 16603.7% | 1.3192 1.3192 | N/A N/A | 0.1911 0.1916 | N/A N/A | 0.809 0.808 | 0.825 0.824 | 4.48% 4.48% | 0.0878 0.0840 |
| | 2074 | 2,460 | 337,274 | 16702.4% | 2 | 162 | 27,132 | 16702.4% | 1.3192 | N/A N/A | 0.1916 | N/A N/A | 0.808 | 0.821 | 4.48% | 0.0804 |
| | 2075 2076 | 1,649 1,342 | 280,138 235,657 | 16987.5% 17557.8% | 2 | 127 99 | 21,569 17,366 | 16987.5% 17557.8% | 1.3192 1.3192 | N/A N/A | 0.2048 0.2071 | N/A N/A | 0.795 0.793 | 0.817 0.814 | 4.48% 4.48% | 0.0770 0.0737 |
| | 2076 2077-2097 | 1,342 4,150 | 939,070 | 22629.6% | 1 | 293 | 66,236 | 17557.8% 22629.6% | 1.3192 | N/A N/A | 0.2071 | N/A N/A | 0.793 | 0.814 N/A | 4.48% 4.48% | 0.0737 0.0705 |
| Ī | Past | 77,646,315 | 8,448,312 | 10.9% | 33,829 | 103,810,755 | 10,311,174 | 9.9% | | | | | | | | |
| | Future | 78,641,283 | 505,615,493 | 642.9% | 42,498 | 52,311,177 | 193,261,198 | 369.4% | | | | | | | | |
| | Lifetime | 156,287,597 | 514,063,805 | 328.9% | 76,327 | 156,121,932 | 203,572,372 | 130.4% | | | | | | | | |

- The 1st round authorized increase of 15% was implemented from Febuary 2010 through January 2011 and the 2nd round authorized increase of 15% was implemented from June 2016 through May 2017.
- The projections are based on the assumptions derived using experience data through 6/30/2016.

Exhibit I-B Metropolitan Life Insurance Company Maryland Experience Projections (Premium Normalized to Include Prior Authorized Increases) and With 32.25% Future Increase Policy Forms: LTC-FAC, LTC- VAL, LTC-IDEAL and LTC- PREM

| | | | | | Loss Ra | tio Demonst | ration | | | Fact | ors Derived fr | om Projected Value | es for Illustrati | ve Purposes C | Only | Interest Rat | e Factors |
|----------------------|-------------------|--------------|---------------------------|-----------------------------|----------------------|------------------|---------------------------|----------------------------|----------------------|--------------------------|------------------|--------------------|--------------------|----------------|----------------|----------------------------|--------------------------|
| | Cale | endar | W Earned | ithout Interest Incurred | Loss | Life | Earned | With Interest Incurred | Loss | Premium Rate Increase | Benefit | Policy | Persistency Policy | Factors Policy | Premium | Calendar Year Effective | Mid-Year Disc / Accum |
| | Ye | ear 1998 | Premium - | Claims - | Ratio N/A | Years - | Premium - | Claims - | Ratio N/A | Factor | Downgrade | Lapse & Mortality | Shock Lapse | Persistency | Persistency | Int Rate 4.48% | Factor 2.2498 |
| | | 1999 2000 | - | - | N/A N/A | - | - | - | N/A N/A | | | | | | | 4.48% 4.48% | 2.1533 2.0610 |
| | | 2001 | - | - | N/A | - | - | - | N/A | | | | | | | 4.48% | 1.9726 |
| | | 2002 2003 | - 378,607 | - | N/A 0.0% | - 464 | - 684,160 | - | N/A 0.0% | | | | | | | 4.48% 4.48% | 1.8880 1.8070 |
| I Parada | | 2004 | 2,186,209 | - | 0.0% | 1,482 | 3,781,170 | - | 0.0% | | | | | | | 4.48% | 1.7296 |
| Historic Experien | | 2005 2006 | 5,283,833 7,186,759 | 1,157 - | 0.0% 0.0% | 3,009 3,055 | 8,746,794 11,386,706 | 1,915 - | 0.0% 0.0% | | | | | | | 4.48% 4.48% | 1.6554 1.5844 |
| | | 2007 2008 | 6,773,655 6,532,215 | 604,682 | 0.0% 9.3% | 2,950 2,869 | 10,271,960 9,481,040 | - 877,652 | 0.0% 9.3% | | | | | | | 4.48% 4.48% | 1.5165 1.4514 |
| | | 2009 | 6,238,449 | 1,373,874 | 22.0% | 2,759 | 8,666,372 | 1,908,567 | 22.0% | | | | | | | 4.48% | 1.3892 |
| | | 2010 2011 | 6,441,093 6,805,244 | 74,327 2,264,423 | 1.2% 33.3% | 2,590 2,528 | 8,564,175 8,660,339 | 98,826 2,881,700 | 1.2% 33.3% | | | | | | | 4.48% 4.48% | 1.3296 1.2726 |
| | | 2012 2013 | 6,697,376 6,598,497 | 504,916 685,554 | 7.5% 10.4% | 2,495 2,455 | 8,157,575 7,692,486 | 615,000 799,214 | 7.5% 10.4% | | | | | | | 4.48% 4.48% | 1.2180 1.1658 |
| | | 2014 | 6,230,249 | 703,160 | 11.3% | 2,417 | 6,951,721 | 784,587 | 11.3% | | | | | | | 4.48% | 1.1158 |
| | | 2015 2016 | 5,328,959 4,965,170 | 1,265,261 970,958 | 23.7% 19.6% | 2,387 2,369 | 5,691,078 5,075,180 | 1,351,239 992,471 | 23.7% 19.6% | | | | | | | 4.48% 4.48% | 1.0680 1.0222 |
| Projecte Future | | 2017 2018 | 5,162,184 | 2,398,454 2,729,457 | 46.5% 54.3% | 2,315 2,260 | 5,050,288 4,702,764 | 2,346,465 2,555,784 | 46.5% 54.3% | 1.3096 1.3192 | 1.0000 1.0000 | 0.0226 0.0238 | 1.0000 1.0000 | | 0.949 0.966 | 4.48% 4.48% | 0.9783 0.9364 |
| Experien | | 2019 | 5,022,331 5,044,995 | 2,993,578 | 59.3% | 2,153 | 4,521,409 | 2,682,895 | 59.3% | 1.4339 | 0.9826 | 0.0477 | 0.9768 | 0.952 | 0.963 | 4.48% | 0.8962 |
| | | 2020 2021 | 5,239,482 5,486,130 | 3,324,810 3,811,488 | 63.5% 69.5% | 2,059 2,001 | 4,494,348 4,504,117 | 2,851,971 3,129,235 | 63.5% 69.5% | 1.5953 1.7415 | 0.9700 0.9700 | 0.0433 0.0281 | 0.9600 0.9600 | | 0.962 0.959 | 4.48% 4.48% | 0.8578 0.8210 |
| | | 2022 2023 | 5,264,035 5,007,543 | 4,364,498 4,984,575 | 82.9% 99.5% | 1,941 1,880 | 4,136,448 3,766,160 | 3,429,597 3,748,886 | 82.9% 99.5% | 1.7446 1.7446 | 0.9700 0.9700 | 0.0299 0.0318 | 0.9600 0.9600 | 0.970 | 0.958 0.951 | 4.48% 4.48% | 0.7858 0.7521 |
| | | 2024 | 4,764,260 | 5,679,723 | 119.2% | 1,816 | 3,429,531 | 4,088,523 | 119.2% | 1.7446 | 0.9700 | 0.0338 | 0.9600 | 0.966 | 0.951 | 4.48% | 0.7198 |
| | | 2025 2026 | 4,524,424 4,288,271 | 6,444,707 7,273,743 | 142.4% 169.6% | 1,751 1,684 | 3,117,223 2,827,822 | 4,440,253 4,796,536 | 142.4% 169.6% | 1.7446 1.7446 | 0.9700 0.9700 | 0.0360 0.0383 | 0.9600 0.9600 | 0.964 0.962 | 0.950 0.948 | 4.48% 4.48% | 0.6890 0.6594 |
| | | 2027 2028 | 4,042,636 3,795,498 | 8,158,098 9,087,699 | 201.8% 239.4% | 1,615 1,545 | 2,551,524 2,292,815 | 5,149,012 5,489,770 | 201.8% 239.4% | 1.7446 1.7446 | 0.9700 0.9700 | 0.0408 0.0435 | 0.9600 0.9600 | 0.959 | 0.943 0.939 | 4.48% 4.48% | 0.6312 0.6041 |
| | | 2029 | 3,552,511 | 10,059,102 | 283.2% | 1,474 | 2,054,002 | 5,816,004 | 283.2% | 1.7446 | 0.9700 | 0.0463 | 0.9600 | 0.954 | 0.936 | 4.48% | 0.5782 |
| | | 2030 2031 | 3,310,217 3,068,432 | 11,041,705 12,011,616 | 333.6% 391.5% | 1,401 1,327 | 1,831,839 1,625,221 | 6,110,361 6,362,054 | 333.6% 391.5% | 1.7446 1.7446 | 0.9700 0.9700 | 0.0493 0.0524 | 0.9600 0.9600 | | 0.932 0.927 | 4.48% 4.48% | 0.5534 0.5297 |
| | | 2032 2033 | 2,831,542 2,603,298 | 12,960,465 13,859,657 | 457.7% 532.4% | 1,253 1,179 | 1,435,437 | 6,570,248 | 457.7% 532.4% | 1.7446 1.7446 | 0.9700 0.9700 | 0.0558 0.0592 | 0.9600 0.9600 | 0.944 | 0.923 0.919 | 4.48% 4.48% | 0.5069 0.4852 |
| | | 2034 | 2,382,415 | 14,691,058 | 616.6% | 1,105 | 1,263,137 1,106,392 | 6,724,793 6,822,518 | 616.6% | 1.7446 | 0.9700 | 0.0629 | 0.9600 | 0.937 | 0.915 | 4.48% | 0.4644 |
| | | 2035 2036 | 2,169,167 1,964,420 | 15,433,612 16,056,618 | 711.5% 817.4% | 1,031 959 | 964,162 835,712 | 6,860,005 6,830,873 | 711.5% 817.4% | 1.7446 1.7446 | 0.9700 0.9700 | 0.0666 0.0706 | 0.9600 0.9600 | | 0.910 0.906 | 4.48% 4.48% | 0.4445 0.4254 |
| | | 2037 | 1,769,238 | 16,563,822 | 936.2% | 887 817 | 720,400 | 6,744,471 | 936.2% | 1.7446 | 0.9700 0.9700 | 0.0745 | 0.9600 | 0.925 | 0.901 | 4.48% 4.48% | 0.4072 |
| | | 2038 2039 | 1,584,365 1,411,056 | 16,920,948 17,135,939 | 1068.0% 1214.4% | 750 | 617,459 526,335 | 6,594,430 6,391,838 | 1068.0% 1214.4% | 1.7446 1.7446 | 0.9700 | 0.0787 0.0828 | 0.9600 0.9600 | | 0.896 0.891 | 4.48% 4.48% | 0.3897 0.3730 |
| | | 2040 2041 | 1,249,683 1,100,566 | 17,185,732 17,076,208 | 1375.2% 1551.6% | 684 622 | 446,152 376,066 | 6,135,516 5,834,985 | 1375.2% 1551.6% | 1.7446 1.7446 | 0.9700 0.9700 | 0.0871 0.0913 | 0.9600 0.9600 | | 0.886 0.881 | 4.48% 4.48% | 0.3570 0.3417 |
| | | 2042 | 964,013 | 16,843,073 | 1747.2% | 562 | 315,280 | 5,508,519 | 1747.2% | 1.7446 | 0.9700 | 0.0957 | 0.9600 | 0.904 | 0.876 | 4.48% | 0.3270 |
| | | 2043 2044 | 839,584 727,205 | 16,480,793 15,980,359 | 1963.0% 2197.5% | 506 453 | 262,811 217,872 | 5,158,898 4,787,740 | 1963.0% 2197.5% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1000 0.1043 | 0.9600 0.9600 | 0.896 | 0.871 0.866 | 4.48% 4.48% | 0.3130 0.2996 |
| | | 2045 2046 | 626,574 536,937 | 15,397,631 14,722,173 | 2457.4% 2741.9% | 404 359 | 179,673 147,366 | 4,415,330 4,040,605 | 2457.4% 2741.9% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1086 0.1129 | 0.9600 0.9600 | | 0.862 0.857 | 4.48% 4.48% | 0.2868 0.2745 |
| | | 2047 | 457,596 | 13,965,437 | 3051.9% | 316 | 120,205 | 3,668,549 | 3051.9% | 1.7446 | 0.9700 | 0.1173 | 0.9600 | 0.883 | 0.852 | 4.48% | 0.2627 |
| | | 2048 2049 | 387,823 327,130 | 13,151,385 12,287,021 | 3391.1% 3756.0% | 278 243 | 97,508 78,721 | 3,306,561 2,956,765 | 3391.1% 3756.0% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1215 0.1257 | 0.9600 0.9600 | | 0.848 0.844 | 4.48% 4.48% | 0.2514 0.2406 |
| | | 2050 2051 | 274,782 229,593 | 11,407,539 10,504,049 | 4151.5% 4575.1% | 212 183 | 63,288 50,613 | 2,627,407 2,315,567 | 4151.5% 4575.1% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1299 0.1341 | 0.9600 0.9600 | | 0.840 0.836 | 4.48% 4.48% | 0.2303 0.2204 |
| | | 2052 | 191,100 | 9,616,689 | 5032.3% 5527.5% | 158 | 40,321 | 2,029,044 | 5032.3% 5527.5% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1381 0.1423 | 0.9600 | 0.862 | 0.832 | 4.48% | 0.2110 |
| | | 2053 2054 | 158,453 130,894 | 8,758,545 7,905,860 | 6039.9% | 135 116 | 31,999 25,300 | 1,768,737 1,528,078 | 6039.9% | 1.7446 | 0.9700 | 0.1464 | 0.9600 0.9600 | 0.854 | 0.829 0.826 | 4.48% 4.48% | 0.2019 0.1933 |
| | | 2055 2056 | 107,739 88,393 | 7,092,927 6,330,530 | 6583.4% 7161.8% | 98 83 | 19,931 15,651 | 1,312,161 1,120,900 | 6583.4% 7161.8% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1503 0.1540 | 0.9600 0.9600 | | 0.823 0.820 | 4.48% 4.48% | 0.1850 0.1771 |
| | | 2057 2058 | 72,327 59,055 | 5,595,427 4,917,538 | 7736.3% 8327.0% | 70 59 | 12,257 9,579 | 948,255 797,637 | 7736.3% 8327.0% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1577 0.1627 | 0.9600 0.9600 | | | 4.48% 4.48% | 0.1695 0.1622 |
| | | 2059 | 48,170 | 4,295,277 | 8916.9% | 49 | 7,478 | 666,828 | 8916.9% | 1.7446 | 0.9700 | 0.1648 | 0.9600 | 0.835 | 0.816 | 4.48% | 0.1552 |
| | | 2060 2061 | 39,237 31,947 | 3,722,820 3,205,981 | 9488.0% 10035.2% | 41 34 | 5,830 4,543 | 553,172 455,947 | 9488.0% 10035.2% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1675 0.1711 | 0.9600 0.9600 | | 0.815 0.814 | 4.48% 4.48% | 0.1486 0.1422 |
| | | 2062 2063 | 26,013 21,191 | 2,746,647 2,338,855 | 10558.9% 11036.8% | 28 23 | 3,541 2,761 | 373,870 304,710 | 10558.9% 11036.8% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1742 0.1756 | 0.9600 0.9600 | 0.826 | 0.814 0.815 | 4.48% 4.48% | 0.1361 0.1303 |
| | | 2064 | 17,285 | 1,979,527 | 11452.4% | 19 | 2,155 | 246,837 | 11452.4% | 1.7446 | 0.9700 | 0.1779 | 0.9600 | 0.822 | 0.816 | 4.48% | 0.1247 |
| | | 2065 2066 | 14,145 11,610 | 1,670,302 1,402,215 | 11808.4% 12077.1% | 15 13 | 1,688 1,326 | 199,347 160,175 | 11808.4% 12077.1% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1818 0.1806 | 0.9600 0.9600 | | 0.818 0.821 | 4.48% 4.48% | 0.1193 0.1142 |
| | | 2067 2068 | 9,558 7,884 | 1,173,493 978,091 | 12277.8% 12406.0% | 10 | 1,045 825 | 128,300 102,350 | 12277.8% 12406.0% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1841 0.1857 | 0.9600 0.9600 | 0.816 | 0.823 0.825 | 4.48% 4.48% | 0.1093 0.1046 |
| | | 2069 | 6,513 | 814,853 | 12511.4% | 7 | 652 | 81,612 | 12511.4% | 1.7446 | 0.9700 | 0.1893 | 0.9600 | 0.811 | 0.826 | 4.48% | 0.1002 |
| | | 2070 2071 | 5,387 4,454 | 673,708 557,248 | 12505.3% 12512.5% | 6 5 | 516 409 | 64,582 51,127 | 12505.3% 12512.5% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1842 0.1879 | 0.9600 0.9600 | | 0.827 0.827 | 4.48% 4.48% | 0.0959 0.0917 |
| | | 2072 | 3,675 | 458,633 | 12479.1% | 4 | 323 | 40,275 | 12479.1% | 1.7446 | 0.9700 | 0.1911 | 0.9600 | 0.809 | 0.825 | 4.48% | 0.0878 |
| | | 2073 2074 | 3,030 2,487 | 380,407 314,070 | 12554.8% 12629.4% | 2 | 255 200 | 31,973 25,265 | 12554.8% 12629.4% | 1.7446 1.7446 | 0.9700 0.9700 | 0.1916 0.1916 | 0.9600 0.9600 | 0.808 | 0.824 0.821 | 4.48% 4.48% | 0.0840 0.0804 |
| | | 2075 2076 | 2,031 1,653 | 260,864 219,443 | 12845.0% 13276.2% | 2 2 | 156 122 | 20,085 16,172 | 12845.0% 13276.2% | 1.7446 1.7446 | 0.9700 0.9700 | 0.2048 0.2071 | 0.9600 0.9600 | | 0.817 0.814 | 4.48% 4.48% | 0.0770 0.0737 |
| | 207 | 77-2097 | 5,110 | | 17111.2% | 1 | 360 | | | 1.7446 | 0.9700 | 0.1783 | 0.9600 | | N/A | 4.48% | 0.0705 |
| | Past | | 77,646,315 | 8,448,312 | 10.9% | 33,829 | 103,810,755 | 10,311,174 | 9.9% | | | | | | | | |
| | Future Lifetim | | 93,079,280 170,725,595 | 471,271,190 479,719,501 | 506.3% 281.0% | 41,018 74,847 | 60,919,320 164,730,075 | 180,382,083 190,693,257 | 296.1% 115.8% | | | | | | | | |

⁻ The 1st round authorized increase of 15% was implemented from Febuary 2010 through January 2011 and the 2nd round authorized increase of 15% was implemented from June 2016 through May 2017.

- The current requested increases of 32.25% are assumed to be implemented in two phases at 15% each with the 1st phase starting January 2019 and the 2nd phase starting April 2020.

- The projections are based on the assumptions derived using experience data through 6/30/2016.

Exhibit II-B

Demonstration that Lifetime Incurred Claims with Requested Increase are Not Less than Lifetime Earned Premium with Prescribed Factors Policy Forms: LTC-FAC, LTC- VAL, LTC-IDEAL and LTC- PREM

| 1 Accumulated value of initial earned premium | 97,777,658 | х | 58% | = | 56,711,041 |
|--|--------------------------|---|-----|---|---------------------------|
| 2a Accumulated value of earned premium 2b Accumulated value of prior premium rate schedule increases (2a-1) | 103,810,755 6,033,097 | X | 85% | = | 5,128,133 |
| 3 Present value of future projected initial earned premium | 39,681,796 | x | 58% | = | 23,015,442 |
| 4a Present value of future projected premium 4b Present value of future projected premium in excess of the projected initial earned premiums (4a-3) | 60,919,320 21,237,524 | x | 85% | = | 18,051,895 |
| 5 Lifetime Earned Premium Times Prescribed Factor: Sum of 1, 2b, 3, and 4b | | | | | 102,906,511 |
| 6a Accumulated value of incurred claims without the inclusion of active life reserves 6b Present value of future projected incurred claims without the inclusion of active life reserves | | | | | 10,311,174 180,382,083 |
| 7 Lifetime Incurred Claims with Rate Increase: Sum of 6a and 6b | | | | | 190,693,257 |
| 8 Test: 7 is not less than 5 | | | | | TRUE |
| | | | | | |

Attachment 1

Metropolitan Life Insurance Company Policy Forms: LTC-FAC, LTC- VAL, LTC-IDEAL and LTC- PREM Assumptions Summary

| | Original Pricing Assumptions | 2017 Best Estimate Assumptions | |
|---------------------------|---|--|---|
| nterest Rate: | 4.50% | Maximum valuation interest rate for contract reserves, which average to 4.48% | |
| Mortality: | 1983 GAM Basic Mortality Table No Mortality Selection Factors were applied | 88% of Annuity 2000 Basic table With Mortality Selection Factors of: Duration Mortality Selection | |
| Voluntary Lapse Rates: | Ssue Age Duration Up to age 65 65+ 1 6.00% 8.00% 2 5.00% 6.00% 3 4.00% 4.00% 4.4 3.00% 3.00% | Duration Lapse Rate 1 5.00% 2 4.50% 3 4.00% 4 3.50% 5 2.50% 6 2.00% 7 1.80% 8 1.50% 9 1.30% 10 1.10% 11+ 1.10% | |
| Morbidity: | Morbidity underwriting savings vary by duration. However, we do not have the actual rates. | Current IB block experience with morbidity U/W Selection Factors of: Duration | |
| Incidence: | Incidence rates for nursing home care were based on a study published by the Society of Actuaries based on the 1985 NNHS with modifications. | 81 1.18% 1.16% 1.61% 82 1.45% 1.55% 1.86% 83 1.74% 1.93% 2.09% 84 2.07% 2.18% 2.35% | ome Care 1.23% 1.43% 1.68% 1.93% 2.21% |
| Continuance: | Continuance rates for nursing home care were based on a study published by the Society of Actuaries based on the 1985 NNHS with modifications. | Termination curves were constructed separately for deaths and recoveries, gender and conficients to an exponential-shaped curve were based on experience adjusted to minimal differences between actual and expected terminations in total as well as at periodic durat along the curves. Death and recovery termination rates were recombined into a single termination modelling and valuation uses. | nize ion points |
| Utilization: | Home care prevalence rates were based on 1982-1984 National Long Term Care Surveys with modifications. Note that the actual utilization assumption at original pricing is not | Home Care Facility Care 61% 79% | |

Attachment 2

Metropolitan Life Insurance Company

Nationwide Experience Projections (Premium Normalized to Include Prior Authorized Increases) and With No Future Increase
Actual to Expected Ratios

Policy Forms: LTC-FAC, LTC- VAL, LTC-IDEAL and LTC- PREM

| | Actual | / Projected Experi | ence | Expect | ed Pricing Experie | nce | |
|----------|----------------------------|----------------------------|----------------------|----------------------------|----------------------------|----------------------|------------------------|
| | | erience through 12 | | | d based on Original | | |
| | | ased on Current A | | | ptions since incept | | |
| | A | В | C = B / A | D | E . | F = E / D | G = C / F |
| Duration | Earned | Incurred | Loss | Earned | Incurred | Loss | Actual to |
| Duration | Premium | Claims | Ratio | Premium | Claims | Ratio 1.0% | Expected Ratio 0.98 |
| 1 | 128,930,834 241,799,286 | 1,280,355 7,182,229 | 1.0% 3.0% | 128,930,834 241,799,286 | 1,302,128 3,653,068 | 1.0% | 1.97 |
| 2 3 | 223,814,495 | 12,392,102 | 5.5% | 230,233,910 | 4,830,992 | 2.1% | 2.64 |
| 4 | 211,674,424 | 11,852,924 | 5.6% | 221,296,636 | 6,582,335 | 3.0% | 1.88 |
| 5 | 201,217,339 | 19,940,660 | 9.9% | 213,763,418 | 8,156,485 | 3.8% | 2.60 |
| 6 | 189,962,161 | 17,250,824 | 9.1% | 205,992,414 | 10,382,733 | 5.0% | 1.80 |
| 7 | 201,622,263 | 21,512,258 | 10.7% | 198,100,003 | 12,359,381 | 6.2% | 1.71 |
| 8 | 206,886,746 | 32,464,681 | 15.7% | 190,253,800 | 13,871,571 | 7.3% | 2.15 |
| 9 | 207,805,449 | 28,109,089 | 13.5% | 182,516,431 | 17,126,930 | 9.4% | 1.44 |
| 10 | 203,528,906 | 35,993,763 | 17.7% | 174,901,324 | 19,264,818 | 11.0% | 1.61 |
| 11 | 187,897,962 | 43,932,174 | 23.4% | 123,041,254 | 21,423,910 | 17.4% | 1.34 |
| 12 | 167,120,426 | 53,140,973 | 31.8% | 116,040,565 | 24,130,556 | 20.8% | 1.53 |
| 13 | 159,695,007 | 69,825,611 | 43.7% | 109,183,720 | 27,209,498 | 24.9% | 1.75 |
| 14 | 152,024,334 | 73,037,281 | 48.0% | 102,495,198 | 33,612,082 | 32.8% | 1.47 |
| 15 | 146,503,097 | 82,025,736 | 56.0% | 96,016,854 | 37,816,315 | 39.4% | 1.42 |
| 16 | 143,206,590 | 93,377,372 | 65.2% | 89,690,927 | 44,338,534 | 49.4% | 1.32 |
| 17 | 135,330,267 | 108,472,829 | 80.2% | 83,539,162 | 49,784,708 | 59.6% | 1.34 |
| 18 | 129,034,883 | 129,580,249 | 100.4% | 77,736,311 | 55,728,960 | 71.7% | 1.40 |
| 19 | 124,424,274 | 150,062,296 | 120.6% | 72,153,206 | 65,873,875 | 91.3% | 1.32 |
| 20 | 117,535,253 | 166,327,703 | 141.5% | 66,797,014 | 72,942,342 | 109.2% | 1.30 |
| 21 | 111,059,294 | 187,159,905 | 168.5% | 61,678,187 | 85,619,496 | 138.8% | 1.21 |
| 22 | 105,453,833 | 214,302,522 | 203.2% | 56,819,733 | 94,134,639 | 165.7% | 1.23 |
| 23 | 98,942,880 | 240,421,552 | 243.0% | 52,143,560 | 103,210,295 | 197.9% | 1.23 |
| 24 | 92,577,517 | 268,676,895 | 290.2% | 47,671,114 | 122,176,291 | 256.3% | 1.13 |
| 25 | 87,498,769 | 294,256,535 | 336.3% | 43,442,073 | 132,374,594 | 304.7% | 1.10 |
| 26 | 80,758,514 | 324,127,256 | 401.4% | 39,433,822 | 144,358,487 | 366.1% | 1.10 |
| 27 | 75,085,145 | 352,046,688 | 468.9% | 35,647,064 | 153,681,561 | 431.1% | 1.09 |
| 28 | 69,268,823 | 378,185,184 | 546.0% 643.5% | 32,103,505 | 162,778,977 | 507.0% | 1.08 |
| 29 30 | 63,368,408 57,951,691 | 407,745,684 435,188,214 | 750.9% | 28,800,595 25,721,896 | 172,679,197 180,153,164 | 599.6% 700.4% | 1.07 1.07 |
| 31 | 52,570,592 | 459,736,526 | 874.5% | 22,866,936 | 221,325,352 | 967.9% | 0.90 |
| 32 | 47,498,620 | 475,409,510 | 1000.9% | 20,236,625 | 228,705,175 | 1130.2% | 0.89 |
| 33 | 42,724,813 | 493,620,169 | 1155.3% | 17,828,520 | 233,623,559 | 1310.4% | 0.88 |
| 34 | 38,136,323 | 506,212,089 | 1327.4% | 15,627,415 | 237,639,900 | 1520.7% | 0.87 |
| 35 | 33,930,762 | 511,536,870 | 1507.6% | 13,619,359 | 235,048,288 | 1725.8% | 0.87 |
| 36 | 29,899,151 | 531,080,416 | 1776.2% | 11,811,540 | 232,100,131 | 1965.0% | 0.90 |
| 37 | 26,236,137 | 527,016,356 | 2008.7% | 10,184,248 | 224,631,766 | 2205.7% | 0.91 |
| 38 | 22,886,724 | 515,172,216 | 2251.0% | 8,727,493 | 213,123,924 | 2442.0% | 0.92 |
| 39 | 19,843,020 | 501,707,849 | 2528.4% | 7,435,634 | 200,008,490 | 2689.9% | 0.94 |
| 40 | 17,097,098 | 488,195,638 | 2855.4% | 6,301,708 | 190,751,618 | 3027.0% | 0.94 |
| 41 | 14,657,030 | 481,877,375 | 3287.7% | 5,308,218 | 210,281,764 | 3961.4% | 0.83 |
| 42 | 12,476,360 | 450,918,871 | 3614.2% | 4,439,394 | 199,650,713 | 4497.3% | 0.80 |
| 43 | 10,554,316 | 428,131,409 | 4056.5% | 3,693,205 | 187,890,895 | 5087.5% | 0.80 |
| 44 | 8,872,040 | 403,349,944 | 4546.3% | 3,057,762 | 175,352,063 | 5734.7% | 0.79 |
| 45 | 7,412,697 | 377,169,848 | 5088.2% | 2,520,701 | 161,893,293 | 6422.5% | 0.79 |
| 46 | 6,155,064 | 349,904,016 | 5684.8% | 2,069,828 | 146,543,212 | 7080.0% | 0.80 |
| 47 | 5,081,033 | 331,798,886 | 6530.1% | 1,694,139 | 132,876,483 | 7843.3% | 0.83 |
| 48 | 4,171,485 | 307,465,484 | 7370.6% | 1,383,112 | 118,520,002 | 8569.1% | 0.86 |
| 49 | 3,406,289 | 271,680,718 | 7975.9% | 1,126,954 | 105,240,145 | 9338.5% | 0.85 |
| 50 | 2,767,009 | 240,327,369 | 8685.5% | 917,418 | 95,400,896 | 10398.8% | 0.84 |
| 51 52 | 2,236,502 | 215,431,980 | 9632.5% | 745,429 | 86,481,552 | 11601.6% | 0.83 |
| 52 53 | 1,799,140 1,441,080 | 191,606,702 173,072,869 | 10649.9% 12009.9% | 285,720 109,516 | 36,981,981 15,814,551 | 12943.4% 14440.5% | 0.82 0.83 |
| 53 54 | 1,441,080 | 150,991,223 | 12009.9% | 109,516 41,977 | 15,814,551 6,762,754 | 16110.6% | 0.83 |
| 54 55 | 913,861 | 128,978,966 | 14113.6% | 41,977 16,090 | 2,891,947 | 17974.0% | 0.82 |
| 56 | 723,937 | 111,743,308 | 15435.5% | 6,167 | 1,236,679 | 20052.9% | 0.79 |
| 57 | 571,702 | 96,390,337 | 16860.2% | 2,364 | 528,839 | 22372.2% | 0.77 |
| 58 | 450,071 | 82,926,981 | 18425.3% | 906 | 226,147 | 24959.8% | 0.73 |
| 59 | 353,370 | 70,906,927 | 20065.9% | 347 | 96,707 | 27846.6% | 0.72 |
| 60 | 276,852 | 59,913,962 | 21641.2% | 133 | 41,355 | 31067.3% | 0.70 |
| | -1 | | | | , , | | |
| Lifotimo | | 14 104 146 250 | 200 6% | 2 510 002 679 | 5 792 229 105 | 16/190/ | 1.92 |

299.6% Lifetime 4,738,271,676 14,194,146,359 3,510,002,678 5,783,228,105 164.8% 1.82 Lifetime* 121.0% 63.0% 1.92 2,722,089,646 3,293,644,136 2,242,972,940 1,413,641,593

Note:

⁻ Figures in column A are normalized to reflect the prior rate actions authorized by Maryland (15% on August 21, 2009 and 15% on January 15, 2016) rather than the prior rate action approved by other states.

⁻ Figures in column D and E do not reflect any rate action.

^{*} Columns A and B are discounted back to the inception date at an interest rate of 4.48%, which is the weighted average maximum valuation interest rate for contract reserves. Columns D and E are discounted back to the inception date at the original pricing interest rate of 4.5%.

Attachment 3

Metropolitan Life Insurance Company

Nationwide Experience Projections (Premium Normalized to Include Prior Authorized Increases of 15% and 15%) and With No Future Increase Actual to Expected Ratios

Policy Forms: LTC-FAC, LTC- VAL, LTC-IDEAL and LTC- PREM

| | | Actual / E | Actual / Projected Experience | | | Reproduced Expected Pricing Experience | | | Manual Adjus Accumulative Loss Ratio as of 12/31/2016 | | | | |
|------------|--------------|------------------------|-------------------------------|--------------------|----------------|--|--------------------|----------------|--|------------------|----------------|--|--|
| | | Actual / F | B | C = B / A | D Reproduced E | E E | F = E / D | G = C / F | H | l I | J = H / I | | |
| | Calendar | Earned | Incurred | Loss | Earned | Incurred | Loss | Actual to | Actual/Projected | Expected at 4.5% | Actual to | | |
| | Year | Premium | Claims | Ratio | Premium | Claims | Ratio | Expected Ratio | • | (on F) | Expected Ratio | | |
| Historical | 2002 | 1,496,379 | 0 | 0.0% | 1,496,739 | 15,116 | 1.0% | 0.00 | 0.0% | 1.0% | 0.00 | | |
| Experience | 2003 | 22,339,571 | 179,109 | 0.8% | 15,048,138 | 174,637 | 1.2% | 0.69 | 0.7% | 1.1% | 0.65 | | |
| | 2004 | 82,618,065 | 1,210,252 | 1.5% | 63,575,840 | 833,621 | 1.3% | 1.12 | 1.3% | 1.3% | 1.02 | | |
| | 2005 | 184,350,022 | 6,828,973 | 3.7% | 152,311,246 | 2,286,456 | 1.5% | 2.47 | 2.8% | 1.4% | 1.97 | | |
| | 2006 | 225,053,606 | 9,417,184 | 4.2% | 226,179,653 | 4,161,009 | 1.8% | 2.27 | 3.4% | 1.6% | 2.08 | | |
| | 2007 | 214,075,039 | 16,422,844 | 7.7% | 223,865,838 | 5,589,559 | 2.5% | 3.07 | 4.6% | 1.9% | 2.41 | | |
| | 2008 | 206,128,039 | 16,409,501 | 8.0% | 216,114,289 | 7,218,952 | 3.3% | 2.38 | 5.3% | 2.2% | 2.37 | | |
| | 2009 | 195,930,837 | 20,225,873 | 10.3% | 208,919,464 | 8,977,437 | 4.3% | 2.40 | 6.0% | 2.6% | 2.35 | | |
| | 2010 | 212,251,681 | 23,805,795 | 11.2% | 201,600,885 | 10,891,519 | 5.4% | 2.08 | 6.8% | 3.0% | 2.29 | | |
| | 2011 | 223,191,685 | 25,160,180 | 11.3% | 194,217,787 | 12,800,567 | 6.6% | 1.71 | 7.3% | 3.4% | 2.18 | | |
| | 2012 | 217,286,403 | 28,607,858 | 13.2% | 185,778,308 | 14,952,682 | 8.0% | 1.64 | 7.9% | 3.8% | 2.08 | | |
| | 2013 | 209,279,626 | 32,841,502 | 15.7% | 171,774,612 | 17,442,964 | 10.2% | 1.55 | 8.6% | 4.3% | 2.01 | | |
| | 2014 | 188,906,020 | 44,262,258 | 23.4% | 148,468,750 | 19,646,895 | 13.2% | 1.77 | 9.6% | 4.8% | 2.00 | | |
| | 2015 | 159,728,244 | 55,400,216 | 34.7% | 122,072,184 | 22,146,335 | 18.1% | 1.91 | 11.0% | 5.4% | 2.03 | | |
| | 2016 | 147,635,557 | 62,819,010 | 42.6% | 113,669,625 | 25,428,868 | 22.4% | 1.90 | 12.4% | 6.0% | 2.05 | | |
| Projected | 2017 | 153,484,329 | 78,098,843 | 50.9% | 107,071,102 | 29,770,535 | 27.8% | 1.83 | 14.0% | 6.8% | 2.07 | | |
| Experience | 2018 | 148,713,703 | 88,543,181 | 59.5% | 100,623,058 | 35,062,592 | 34.8% | 1.71 | 15.8% | 7.6% | 2.08 | | |
| | 2019 | 142,780,881 | 100,677,602 | 70.5% | 94,332,270 | 40,247,020 | 42.7% | 1.65 | 17.6% | 8.5% | 2.08 | | |
| | 2020 | 136,737,852 | 114,676,844 | 83.9% | 88,207,863 | 46,134,183 | 52.3% | 1.60 | 19.6% | 9.4% | 2.08 | | |
| | 2020 | 130,744,224 | 130,661,280 | 99.9% | 82,303,723 | 52,392,169 | 63.7% | 1.57 | 21.8% | 10.5% | 2.08 | | |
| | 2021 | 124,751,967 | 148,734,120 | 119.2% | 76,653,813 | 59,985,507 | 78.3% | 1.57 | 24.1% | 11.6% | 2.06 | | |
| | 2022 | 124,751,967 | 168,895,990 | 142.2% | 70,053,813 | 69,024,999 | 78.3% 96.9% | 1.52 | 24.1% 26.7% | 12.9% | 2.07 | | |
| | 2023 2024 | 118,746,129 | 191,094,820 | 142.2% 169.6% | 65,989,830 | 78,334,973 | 96.9% 118.7% | 1.47 | 26.7% 29.4% | 14.3% | 2.06 | | |
| | | | | | | | | | | | | | |
| | 2025 | 106,637,908 | 215,234,554 | 201.8% | 60,984,980 | 88,788,660 | 145.6% | 1.39 | 32.3% | 15.8% | 2.04 | | |
| | 2026 | 100,586,534 | 241,123,676 | 239.7% | 56,187,069 | 99,184,721 | 176.5% | 1.36 | 35.4% | 17.4% | 2.04 | | |
| | 2027 | 94,496,969 | 268,479,267 | 284.1% | 51,577,146 | 111,934,668 | 217.0% | 1.31 | 38.7% | 19.1% | 2.03 | | |
| | 2028 | 88,445,991 | 296,930,547 | 335.7% | 47,174,899 | 126,050,769 | 267.2% | 1.26 | 42.3% | 21.0% | 2.01 | | |
| | 2029 | 82,418,864 | 326,101,679 | 395.7% | 42,992,995 | 137,136,408 | 319.0% | 1.24 | 46.0% | 22.9% | 2.00 | | |
| | 2030 | 76,482,893 | 355,462,771 | 464.8% | 39,028,121 | 147,766,231 | 378.6% | 1.23 | 49.8% | 24.9% | 2.00 | | |
| | 2031 | 70,671,851 | 384,246,110 | 543.7% | 35,288,917 | 157,369,795 | 445.9% | 1.22 | 53.8% | 27.0% | 1.99 | | |
| | 2032 | 65,008,418 | 411,916,591 | 633.6% | 31,783,569 | 167,565,161 | 527.2% | 1.20 | 57.9% | 29.1% | 1.99 | | |
| | 2033 | 59,484,729 | 437,783,806 | 736.0% | 28,507,304 | 181,463,101 | 636.5% | 1.16 | 62.0% | 31.2% | 1.99 | | |
| | 2034 | 54,159,315 | 461,330,296 | 851.8% | 25,454,206 | 201,322,418 | 790.9% | 1.08 | 66.2% | 33.5% | 1.98 | | |
| | 2035 | 49,049,444 | 481,879,837 | 982.4% | 22,624,766 | 223,167,426 | 986.4% | 1.00 | 70.4% | 36.0% | 1.96 | | |
| | 2036 | 44,177,461 | 498,602,833 | 1128.6% | 20,017,423 | 230,705,667 | 1152.5% | 0.98 | 74.6% | 38.4% | 1.94 | | |
| | 2037 | 39,564,844 | 511,501,927 | 1292.8% | 17,624,913 | 234,664,139 | 1331.4% | 0.97 | 78.7% | 40.8% | 1.93 | | |
| | 2038 | 35,217,423 | 519,859,372 | 1476.1% | 15,437,025 | 235,626,093 | 1526.4% | 0.97 | 82.7% | 43.0% | 1.92 | | |
| | 2039 | 31,168,079 | 523,278,681 | 1678.9% | 13,447,611 | 232,797,992 | 1731.1% | 0.97 | 86.6% | 45.2% | 1.92 | | |
| | 2040 | 27,424,495 | 522,024,873 | 1903.5% | 11,651,601 | 227,275,112 | 1950.6% | 0.98 | 90.3% | 47.2% | 1.91 | | |
| | 2041 | 23,985,327 | 516,192,243 | 2152.1% | 10,036,576 | 218,137,486 | 2173.4% | 0.99 | 93.8% | 49.0% | 1.91 | | |
| | 2042 | 20,849,083 | 506,078,667 | 2427.3% | 8,594,677 | 207,737,392 | 2417.0% | 1.00 | 97.0% | 50.7% | 1.91 | | |
| | 2043 | 18,013,729 | 492,004,606 | 2731.3% | 7,318,192 | 201,463,766 | 2752.9% | 0.99 | 100.1% | 52.3% | 1.91 | | |
| | 2044 | 15,470,444 | 474,305,296 | 3065.9% | 6,195,379 | 202,655,349 | 3271.1% | 0.94 | 103.0% | 53.8% | 1.91 | | |
| | 2045 | 13,207,691 | 453,519,910 | 3433.8% | 5,212,009 | 205,401,216 | 3940.9% | 0.87 | 105.6% | 55.3% | 1.91 | | |
| | 2045 | 11,207,563 | 430,064,182 | 3837.3% | 4,357,889 | 195,425,499 | 4484.4% | 0.86 | 107.9% | 56.6% | 1.91 | | |
| | 2040 | 9,451,065 | 404,593,773 | 4280.9% | 3,625,335 | 183,289,493 | 5055.8% | 0.85 | 110.1% | 57.8% | 1.90 | | |
| | | 9,451,065 7,919,545 | 377,598,291 | 4260.9% 4767.9% | 3,025,335 | 170,114,352 | 5666.1% | 0.85 | 110.1% | 58.9% | 1.90 | | |
| | 2048 | | | | | | | | | 58.9% 59.8% | | | |
| | 2049 | 6,597,678 | 349,789,914 | 5301.7% | 2,476,287 | 155,976,827 | 6298.8% | 0.84 | 113.7% | | 1.90 | | |
| | 2050 | 5,463,817 | 321,640,513 | 5886.7% | 2,035,259 | 141,433,801 | 6949.2% 7643.2% | 0.85 | 115.2% | 60.6% 61.3% | 1.90 | | |
| | 2051 | 4,499,034 | 293,560,938 | 6525.0% | 1,668,017 | 127,490,087 | 7643.2% | 0.85 | 116.5% | 61.3% 61.0% | 1.90 | | |
| | 2052 | 3,685,389 | 266,112,885 | 7220.8% | 1,364,046 | 114,188,887 | 8371.3% | 0.86 | 117.6% | 61.9% | 1.90 | | |
| | 2053 | 3,003,168 | 239,464,346 | 7973.7% | 1,104,912 | 101,671,544 | 9201.8% | 0.87 | 118.6% | 62.4% | 1.90 | | |
| | 2054 | 2,435,116 | 213,887,334 | 8783.5% | 843,663 | 85,392,622 | 10121.6% | 0.87 | 119.4% | 62.9% | 1.90 | | |
| | 2055 | 1,965,041 | 189,761,553 | 9656.9% | 535,683 | 59,103,851 | 11033.4% | 0.88 | 120.1% | 63.1% | 1.90 | | |
| | 2056 | 1,578,525 | 167,186,086 | 10591.3% | 222,243 | 27,100,369 | 12194.0% | 0.87 | 120.7% | 63.2% | 1.91 | | |
| | 2057 | 1,263,074 | 146,404,645 | 11591.1% | 85,409 | 11,619,268 | 13604.3% | 0.85 | 121.2% | 63.3% | 1.92 | | |
| | 2058 | 1,006,980 | 127,391,693 | 12650.9% | 32,822 | 4,981,574 | 15177.7% | 0.83 | 121.7% | 63.3% | 1.92 | | |
| | 2059 | 800,158 | 110,247,165 | 13778.2% | 12,613 | 2,135,770 | 16933.2% | 0.81 | 122.0% | 63.3% | 1.93 | | |
| | 2060 | 633,781 | 94,890,137 | 14972.1% | 4,847 | 915,677 | 18891.7% | 0.79 | 122.3% | 63.3% | 1.93 | | |
| | 2061 | 500,509 | 81,219,156 | 16227.3% | 1,863 | 392,582 | 21076.7% | 0.77 | 122.5% | 63.3% | 1.93 | | |
| | 2062 | 394,113 | 69,163,571 | 17549.2% | 716 | 168,313 | 23514.4% | 0.75 | 122.7% | 63.3% | 1.94 | | |
| | 2063 | 309,606 | 58,619,460 | 18933.5% | 275 | 72,162 | 26234.1% | 0.72 | 122.9% | 63.3% | 1.94 | | |
| | 2064 | 242,766 | 49,473,441 | 20379.1% | 106 | 30,938 | 29268.4% | 0.70 | 123.0% | 63.3% | 1.94 | | |
| | 2065 | 190,130 | 41,591,051 | 21875.1% | 41 | 13,264 | 32653.6% | 0.67 | 123.1% | 63.3% | 1.94 | | |
| | 2066 | 148,668 | 34,783,856 | 23397.1% | 16 | 5,687 | 36430.3% | 0.64 | 123.2% | 63.3% | 1.94 | | |
| | 2067 | 115,784 | 28,979,364 | 25028.8% | 6 | 2,438 | 40643.8% | 0.62 | 123.2% | 63.3% | 1.95 | | |
| | 2068 | 89,999 | 24,021,115 | 26690.6% | 2 | 1,045 | 45344.7% | 0.59 | 123.3% | 63.3% | 1.95 | | |
| | 2069 | 69,928 | 19,815,376 | 28336.9% | 1 | 448 | 50589.2% | 0.56 | 123.3% | 63.3% | 1.95 | | |
| | 2009 | 54,227 | 16,271,869 | 30007.1% | 0 | 192 | 56440.4% | 0.53 | 123.4% | 63.3% | 1.95 | | |
| | 20/0 | J 1 ,221 | 10,271,009 | 50007.170 | U | 132 | JUTHU.470 | 0.00 | 120.4/0 | 00.0 /0 | 1.80 | | |
| | Past | 2,490,270,774 | 343,590,556 | 13.8% | 2,245,093,360 | 152,566,617 | 6.8% | 2.03 | 12.4% | 6.0% | 2.05 | | |
| | Future | 2,248,781,914 | 14,075,771,937 | 625.9% | 1,264,909,401 | 5,630,692,240 | 445.1% | 1.41 | 369.1% | 259.4% | 1.42 | | |
| | rulule | | | | , , , | . , , | | | | | | | |

Note

⁻ Figures in column A are normalized to reflect the prior rate actions authorized by Maryland (15% on August 21, 2009 and 15% on January 15, 2016) rather than the prior rate action rather than the prior rate action approved by other states.

⁻ Figures in column D do not reflect any rate action

Attachment 4 Metropolitan Life Insurance Company Actual to Expected Lapse/Mortality Individual Business

| Lapse | | | | | | | | | |
|----------|--------|------------|---------|--|--|--|--|--|--|
| Policy | | | | | | | | | |
| Duration | Actual | Expected * | A/E% | | | | | | |
| 1 | 11,005 | 12,576 | 87.51% | | | | | | |
| 2 | 13,869 | 10,602 | 130.82% | | | | | | |
| 3 | 9,584 | 8,983 | 106.70% | | | | | | |
| 4 | 6,951 | 7,536 | 92.24% | | | | | | |
| 5 | 5,557 | 4,842 | 114.76% | | | | | | |
| 6 | 3,703 | 3,475 | 106.57% | | | | | | |
| 7 | 2,683 | 2,861 | 93.79% | | | | | | |
| 8 | 1,960 | 2,173 | 90.20% | | | | | | |
| 9 | 1,470 | 1,584 | 92.81% | | | | | | |
| 10+ | 2,634 | 3,386 | 77.79% | | | | | | |

| Mortality | | | | | | | | | |
|--------------------|--------|------------|--------|--|--|--|--|--|--|
| Policy Duration | Actual | Expected * | A/E% | | | | | | |
| 1 | 536 | 541 | 99.05% | | | | | | |
| 2 | 924 | 1,129 | 81.85% | | | | | | |
| 3 | 1,110 | 1,317 | 84.25% | | | | | | |
| 4 | 1,316 | 1,663 | 79.12% | | | | | | |
| 5 | 1,532 | 1,922 | 79.73% | | | | | | |
| 6 | 1,694 | 2,194 | 77.22% | | | | | | |
| 7 | 1,859 | 2,446 | 75.99% | | | | | | |
| 8 | 2,052 | 2,691 | 76.24% | | | | | | |
| 9 | 2,105 | 2,872 | 73.29% | | | | | | |
| 10 | 2,268 | 3,000 | 75.61% | | | | | | |
| 11 | 2,270 | 3,049 | 74.45% | | | | | | |
| 12 | 2,125 | 2,668 | 79.64% | | | | | | |
| 13 | 1,883 | 2,201 | 85.57% | | | | | | |
| 14+ | 4,505 | 4,701 | 95.82% | | | | | | |

^{*} The expecteds are based on current best estimate assumptions.

Attachment 4 Metropolitan Life Insurance Company Actual to Expected Incidence Individual Business

| Individual Business | | | | | | | | | | | | |
|---------------------|-------------------------------|------------------------------|------|-------------------------------|------------------------------|------|-------------------------------|------------------------------|------|-------------------------------|------------------------------|------|
| | Female | | | | | | Male | | | | | |
| | Facility Care | | | Home Care | | | Facility Care | | | Home Care | | |
| Calendar Year | Actual Claims ¹ | Expected Claims ² | A/E% | Actual Claims ¹ | Expected Claims ² | A/E% | Actual Claims ¹ | Expected Claims ² | A/E% | Actual Claims ¹ | Expected Claims ² | A/E% |
| 2002 | 3 | 2 | 152% | 1 | 1 | 78% | 2 | 1 | 282% | 0 | 1 | 0% |
| 2003 | 14 | 8 | 186% | 6 | 5 | 115% | 4 | 3 | 133% | 2 | 3 | 67% |
| 2004 | 19 | 17 | 114% | 15 | 13 | 119% | 7 | 6 | 111% | 5 | 7 | 71% |
| 2005 | 33 | 27 | 121% | 16 | 20 | 79% | 15 | 11 | 140% | 9 | 12 | 76% |
| 2006 | 49 | 40 | 124% | 33 | 31 | 106% | 23 | 16 | 144% | 18 | 18 | 99% |
| 2007 | 80 | 57 | 141% | 55 | 48 | 116% | 34 | 25 | 138% | 31 | 29 | 105% |
| 2008 | 114 | 81 | 141% | 88 | 73 | 121% | 33 | 37 | 90% | 43 | 47 | 92% |
| 2009 | 110 | 105 | 105% | 91 | 96 | 95% | 53 | 48 | 109% | 56 | 60 | 93% |
| 2010 | 129 | 130 | 99% | 99 | 115 | 86% | 65 | 59 | 109% | 82 | 75 | 110% |
| 2011 | 157 | 155 | 101% | 135 | 136 | 99% | 68 | 74 | 92% | 77 | 91 | 84% |
| 2012 | 197 | 182 | 108% | 162 | 157 | 103% | 93 | 88 | 106% | 120 | 109 | 110% |
| 2013 | 209 | 214 | 98% | 168 | 180 | 93% | 98 | 104 | 95% | 103 | 126 | 82% |
| 2014 | 235 | 248 | 95% | 201 | 204 | 99% | 105 | 122 | 86% | 156 | 146 | 107% |
| 2015 | 264 | 278 | 95% | 233 | 219 | 106% | 124 | 141 | 88% | 170 | 165 | 103% |
| Total | 1,613 | 1,543 | 105% | 1,303 | 1,297 | 100% | 724 | 734 | 99% | 872 | 890 | 98% |

¹ Based on actual experience through 6/30/2016 including adjustments for incurred but not reported claims.

² The expected claims are based on current best estimate assumptions.

Attachment 4
Metropolitan Life Insurance Company
Actual to Expected Claim Terminations
All Business (excl. AARP-Pru)

| | Non AARP-Pru Block | | | | | | | | | | | |
|----------------------------|--------------------|---------------------------------|----------------------|----------------------------------|----------------|--------------------|------------|--|--|--|--|--|
| Claim Duration (Months) | Actual Deaths | Expected Deaths ¹ | Actual Recoveries | Expected Recoveries ¹ | Deaths A/E% | Recoveries A/E% | Total A/E% | | | | | |
| 1 | 774 | 482 | 59 | 75 | 160% | 78% | 149% | | | | | |
| 2 | 703 | 1,197 | 156 | 233 | 59% | 67% | 60% | | | | | |
| 3 | 746 | 1,036 | 218 | 222 | 72% | 98% | 77% | | | | | |
| 4 | 834 | 1,139 | 294 | 252 | 73% | 116% | 81% | | | | | |
| 5 | 831 | 934 | 262 | 206 | 89% | 127% | 96% | | | | | |
| 6 | 726 | 816 | 196 | 179 | 89% | 110% | 93% | | | | | |
| 7 | 623 | 676 | 174 | 148 | 92% | 118% | 97% | | | | | |
| 8 | 561 | 582 | 131 | 122 | 96% | 107% | 98% | | | | | |
| 9 | 546 | 510 | 104 | 103 | 107% | 101% | 106% | | | | | |
| 10 | 465 | 459 | 114 | 88 | 101% | 130% | 106% | | | | | |
| 11 | 443 | 423 | 73 | 76 | 105% | 96% | 103% | | | | | |
| 12 | 469 | 397 | 80 | 67 | 118% | 119% | 118% | | | | | |
| 13+ | 11,666 | 10,750 | 1,254 | 1,365 | 109% | 92% | 107% | | | | | |
| Total | 19,387 | 19,402 | 3,115 | 3,137 | 100% | 99% | 100% | | | | | |

¹ The expected deaths and recoveries are based on current best estimate assumptions.