



Russell G. Golden, Chairman
Financial Accounting Standards Board
401 Merritt 7, PO Box 5166
Norwalk, CT 06856-5116
director@fasb.org

Cc: Alex Casas, Senior Project Manager

May 10th, 2018

Dear Chairman Golden:

Targeted Improvements to Long Duration Insurance Contracts Accounting

MassMutual (the Company or we) appreciate the opportunity to provide additional comments on FASB's *Targeted Improvements to Long Duration Insurance Contracts* accounting. We thank the Board and the staff for their diligent work on this project. The long duration insurance standard is expected to (1) simplify the accounting for deferred acquisition costs (DAC), (2) enhance comparability of the liability for future policy benefits by discounting at upper medium rate, and (3) improve disclosures on long duration insurance accounting. As the Board finalizes this guidance, the Company would like to point out some *critical issues* for consideration to minimize the potential disruptions to the competitive insurance market, non-economic volatility in earnings, and improve decision-usefulness to investors and other financial statement users.

Issue #1: Recording the Effect of Updating Cash Flow Assumptions on a “Catch up” Basis in Net Income Does Not Provide Decision-Useful Information to Investors

FASB decided in redeliberating the proposed ASU that “*the effect of updating cash flow assumptions should be calculated and recorded on a catch-up basis in net income.*”

The accounting issue is that the Board's tentative decision does not distinguish between the effects of updating cash flow assumptions relating to: (1) experience or actual cash flow, and (2) changes in expected future cash flow from the underlying mortality and morbidity. Specifically, the “cumulative catch-up” approach records changes in cash flows assumptions due to both actual experience, and expected future outcomes through net income. While we agree that the

experience adjustments derived from comparing actual to projected cash flows in the current period should be recorded in net income, we don't believe that revisions to future estimates of cash flows should be recorded in net income for the following reasons. Topic 250-10-45-17 (formerly FAS 154 par. 19) states, in part:

"A change in accounting estimate shall be accounted for in the period of change if the change affects that period only or in the period of change and future periods if the change affects both."

Unlocking all changes in cash flows through net income is not consistent with the accounting for changes in estimates, reports future changes in current period earnings, and departs from NAIC's principles-based reserve (PBR) or IFRS 17, *Insurance contracts*. Also, the cumulative "catch-up" approach leads to non-economic volatility in earnings, impairs comparability with IFRS-filers, and it does not provide decision-useful information to management, and investors. The cumulative catch-up approach does not fairly present the amount of the liability for FPB because it miscalculates the net premium ratio under that approach. Please see Appendix 1 below for an example.

The Company recommends that the FASB should require companies to record experience adjustments in current net income, and changes in future cash flows prospectively in future periods through the present value of deferred profits (i.e., loading) until this loading is zero. Once the loading is zero, all changes in cash flow should be reported in current period net income so that there is no delay in recording losses. We believe that prospective unlocking of expected future cash flows is consistent with investors' feedback, enhances financial statement comparability, minimizes non-economic volatility, and provides more decision-useful information to financial statement users.

Issue #2: Effect of Changes in the Discount Rate at Transition Should Not Be Recorded in Opening Retained Earnings, but in Accumulated Other Comprehensive Income (AOCI)

FASB tentatively decided that *"Future cash flows should be discounted using a current upper-medium grade (low credit risk) fixed-income instrument yield. The effect of updating the discount rate assumption should be recognized immediately in other comprehensive income."*

The accounting issue is what the transition discount rate is, and whether the change in existing and transition discount rates should be recorded in opening retained earnings or accumulated other comprehensive income? The Company is concerned that using the current upper-medium rate at transition, and recording the change in discount rate through opening retained earnings does not reflect the Board's view that changes in discount rate shall be recorded in other comprehensive income (OCI). Since most of these policies were issued in higher interest rate environments compared to today's low interest rates, the extent of the change in the discount rates at transition is likely to be very substantial decrease in equity at transition. If this issue is not addressed, it will lead to mismatch in equity, specifically between accumulated other

comprehensive income (AOCI), and retained earnings, because the changes in the related available for sale securities (AFS) is recorded in AOCI, while the changes in the transition discount rate will be recorded in retained earnings.

The Company recommends that the FASB: (a) allows the transition discount rate to be determined as an approximation of the average rate at inception of the contract, and (b) require that the changes in the discount rates between the inception (or approximate average) and transition date of the guidance to be recorded in AOCI, and not in opening retained earnings.

The Company believes that the average discount rate approach is consistent with modified retrospective approach, while including the discount rate changes in AOCI is in line with the proposed requirements. These transition practical expedients will minimize non-economic mismatch at transition, and provide decision-useful information to investors.

Issue #3: No Language on Accounting for Reinsurance Contracts

The Board has not discussed the measurement, recognition, presentation, and disclosures on reinsurance contracts. There is the presumption that reinsurance contracts will follow the same model as the direct insurance side pursuant to the FASB's tentative decisions on long duration insurance contracts. The accounting issue is that there will be diversity in practice on reinsurance accounting unless the FASB includes some guidance on it.

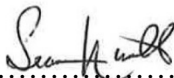
Prior to finalizing the insurance standard, the Company encourages FASB to provide some guidance on the measurement, recognition, presentation, and disclosure of reinsurance transactions and related balances.

Issue #4: Transition Date and Early Adoption Option & Transition Resource Group

Finally, we would like the Board to consider allowing companies to adopt the final ASU using 3 to 5 years phased-in approach, including the option to early adopt certain provisions of the guidance, for example, deferred acquisition costs (DAC). The optional phased in approach and early adoption of DAC will allow preparers and auditors to efficiently and effectively apply the guidance to the financial statements. The Board should also consider setting up transition resource group (TRG) on long duration insurance accounting to address implementation issues.

Thank you very much for your time and great efforts. Please contact Akwasi Ampofo at 413-744-2792 or myself if we can be of further assistance.

Sincerely,



.....

Sean Newth, Chief Accounting Officer and Corporate Controller

Appendix 1

Application of Prospective Unlocking Approach to FASB Example 6 Topic 944-40-55-29K

Executive Summary

MassMutual does not believe the retrospective unlocking model is appropriate and recommends the prospective unlocking model. The key highlights from this analysis are as follows:

- A) Prospective unlocking recognizes the impact of future changes ratably over the period in which the experience is expected to emerge while retrospective unlocking forces companies to recognize all those changes in the current period. Since the new expectation may or may not actually materialize, we feel that the prospective approach presents a more accurate view of the economics of the contract (see Figure A below).
- B) Unlocking related to the discount rate ought to be consistently applied through all the reserve calculations. Unlocking the discount rate without also unlocking the net premium used in calculating the reserves creates an internal inconsistency that can result in material misstatement of shareholder equity. This is particularly true in the retrospective model due to its current period recognition (see OCI presentation in Table B below).

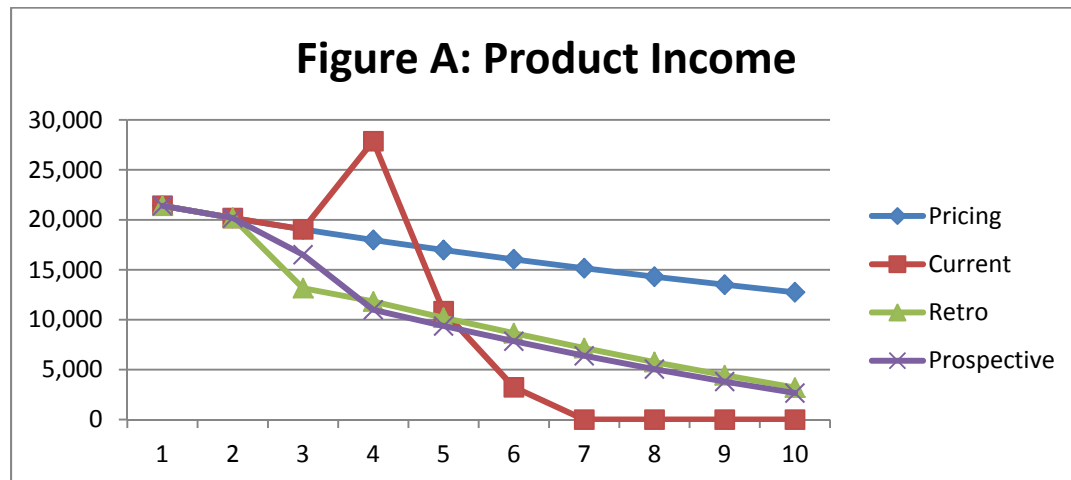


Table B: Comparison of OCI Calculation for Retro and Prospective Models

Description	Retrospective Model (Year 3)	Prospective Model (Year 3)
FASB's Proposed ASU	34,183	27,862
MassMutual Estimates	12,113	4,297
Difference in OCI	22,070	23,565

Purpose

Using the information in Example 6 in the FASB’s proposed ASU under paragraph 944-40-55-29K, this attachment illustrates the financial statements implications of: (a) net premium ratio (NPR), (b) the liability for future policy benefits (FPB), (c) the effect of unfavorable changes in cash flows assumptions on key financial statement line items, and (d) the effect of a decline in the discount rate from 4 percent to 2 percent on financial statements. The attachment also compares financial results under the current GAAP locked-in model, the proposed retrospective model, and our recommended prospective model.

Scenario

Example 6 in FASB’s proposed ASU Topic 944-40-55-29K provides a scenario in which there is 10 years of cash flows information for (1) benefits expenses, and (2) gross premiums. The original scenario and key assumptions are reproduced in Table 1 below:

Table1: FASB Original Cash Flows and Discount Rate Assumptions

Year	Benefits and Expenses [A=Given]	Gross premiums [B=Given]	Net premiums [C=B*D]	NPR Ratio [D=NPV (A/B)]	Loading [E=B-C]	Liability for FPB [F=NPV(A)-NPV(C)]
1	8,300	81,340	59,937	73.69%	21,403	51,637
2	8,600	76,710	56,526	73.69%	20,184	101,628
3	10,220	72,380	53,335	73.69%	19,045	148,808
4	11,530	68,330	50,351	73.69%	17,979	193,581
5	13,500	64,530	47,550	73.69%	16,980	235,375
6	14,240	60,950	44,912	73.69%	16,038	275,462
7	17,020	57,570	42,422	73.69%	15,148	311,882
8	19,620	54,370	40,064	73.69%	14,306	344,801
9	22,070	51,320	37,816	73.69%	13,504	374,340
10	425,000	48,430	35,687	73.69%	12,743	0
Total	550,100	635,930	468,599	73.69%	167,331	N/A
PV (4%)	387,114	525,348	387,114	73.69%	138,233	N/A

Table 1 above is calculated at contract issuance and it reflects the loading which is the difference between gross premiums and net premiums. The loading is expected to be used to provide profit and compensate the company for the risk of adverse changes in cash flows such as lapses, terminations, expenses, and interest income. Based on Table 1 and using a 4 percent discount rate, the present value of the loading at the beginning of year 1 is \$138,233 and it is recognized over the life the contract as gross premium is received. In a net premium valuation model, the present value of loading is not recorded in the financial statements like it would be in a gross premium valuation model. At the inception of the insurance contract, the loading is the same for

the existing locked-in model, the proposed retrospective unlocking model and our recommended prospective unlocking model.

Years 2 to 10

In year 2, the original cash flows and discount rate assumptions do not change and net premium ratio remains at 73.69% for all three models.

At the end of year 3, the insurer has a determined that it should update its assumptions for years 4 through 10 due to unfavorable trends, which could include unfavorable experience in investment returns, lapses, early terminations, and deaths. The year 4 changes in benefits also include the 10% decline in the amount of insurance in force that as evidenced by the expected decrease in gross premium starting in year 4. Also in year 3, the discount rate also declines from 4 percent to 2 percent. Table 2 below shows the changes in the cash flows assumptions. Tables 3, 4, and 5 show the effect of the changes given the (1) current locked-in model, (2) proposed retro unlocking model and (3) recommended prospective model.

Table 2: Changes in Cash Flows Assumptions (Recognized in Year 3)

Legend: updated amounts (applies to remaining tables 3-6)

Year	Benefits and Expenses [A=Given, Updated]	Gross premiums [B=Given, Updated]	Net Premium Ratio
1	8,300	81,340	73.69%
2	8,600	76,710	73.69%
3	10,220	72,380	?
4	11,184	61,497	?
5	13,095	58,077	?
6	13,813	54,855	?
7	16,509	51,813	?
8	19,031	48,933	?
9	21,408	46,188	?
10	412,250	43,587	?
Total	534,410	595,380	?
PV (4%)	376,251	494,161	76.14%
PV (2%)	447,209	541,082	82.65%

Please note that the net premium ratio (“NPR”) that is shown in the proposed ASU is 76.14% which reflects a discount rate of 4% (and before the impact of the cumulative effect adjustment of \$5,888 in year 3) prior to the interest rate change to 2%. To make our analysis easier to

compare with the FASB proposal, we also use the NPR of 76.14% before the interest rate change unless specified otherwise.

It is important to note that an alternative NPR based on a 2% discount rate is 82.65% which can also be used to calculate the liability for future policy benefits, and the effects of interest rate change is isolated in the analysis of the changes in the reserves.

Current Model

Table 3: Locked-in approach

Year	Benefits and Expenses [A=Given]	Gross premiums [B=Given]	Net premiums [C= B*.7369]	End of Year Reserve From Table1 100% to Yr3 90% Yr. 4-10 [D]	Adj. NPR Ratio [E=NP V(A/B)]	Deficiency Test (2%): Reserve + PVF (B) - PVF (A) [F]	Final Reserve: Col D –Col F (if neg) [G]
1	8,300	81,340	59,937	51,637	.7369		51,637
2	8,600	76,710	56,526	101,628	.7369		101,628
3	10,220	72,380	53,335	148,808	.7369	40,804	148,808
4	11,184	61,497	45,315	174,223	.7369	13,746	174,223
5	13,095	58,077	42,795	211,837	.7369	3,168	211,837
6	13,813	54,855	40,421	247,916	.8457	(5,968)	253,884
7	16,509	51,813	38,180	280,694	1.000	(13,572)	294,266
8	19,031	48,933	36,057	310,321	1.000	(19,732)	330,053
9	21,408	46,188	34,035	336,906	1.000	(24,529)	361,434
10	412,250	43,587	32,118	0	1.000	0	0
Total	534,410	595,380					
PV 4%	376,251	494,161	364,134			(12,117)	
PV 2%	447,209	541,082					

Under existing U.S. GAAP and considering the effect of loss recognition testing, Table 3 above illustrates the effects on the NPR and liability for future policy benefits (FPB). The deficiency test was performed assuming 2% discount rate and compares the end of year reserve plus the present value of the future gross premium to the present value of future benefits and expenses. The current method allows the continuation of the locked in net premium ratio until a premium deficiency emerges. In the chart above, the adjusted net premium is increased to cover the change in the present value deficiency emerging in that year (e.g. in year 6, the adjusted net premium is \$46,389 (\$40,421+ \$5,968) or 84.57% of the gross premium).

While the current method does not allow a company to defer losses, it does allow the recognition a decrease in reserve before the company satisfies its contractual liabilities. The deficiency test is a test of the PV of the net loading and defers the recognition of experience losses until such time as there is no future loading.

We will compare the financial statement implications below once we cover the other two methods.

Retrospective Model

As FASB has derived, the cumulative catchup required in the Retrospective method is the difference in net premiums accumulated with interest to the date experience difference is recognized:

Year	Gross premiums [A=Given]	Initial Net premiums NPR=.7369 [B=Tab 1]	Retro Net premiums NPR=.7614 [C]	Change Net Premium [D]
1	81,340	59,937	61,932	1,995
2	76,710	56,526	58,407	1,881
3	72,380	53,335	55,110	1,775
Accumulated @ 4%	240,136	176,949	182,838	5,888

Note that the initial NPR (.7369) plus the ratio of the catchup to the accumulated value of gross premiums received to the recognition date ($\$5,888 / \$240,136 = .0245$) equals the retrospective NPR ($.7369 + .0245 = .7614$). Prior to year 3, the NPR is 73.69% and after year 3 the NPR is .7614. In year 3 however, the Adjusted Net Premium is the initial net premium plus the catch up ($\$53,335 + \$5,888 = \$59,223$) which is 81.82% of the gross premium. In the general case, there is no upper limit to retrospective adjusted NPR in the year of the catch-up irrespective of the extent of the loading that remains in the block. It is possible in the retrospective methodology to record an adjusted NPR in excess of 100% even when there is significant future positive loading (profit).

Table 4: Retrospective approach

Year	Benefits and Expenses [A=Given]	Gross premiums [B=Given]	Net premiums [C]	End of Year Reserve [D]	Adj. NPR Ratio [E=NPV (A/B)]	EOY PV Loading (4%): Reserve + PVF (B) - PVF (A) [F]	Final Reserve: Col D – Col F (if neg) [G]
1	8,300	81,340	59,937	51,637	.7369	122,360	51,637
2	8,600	76,710	56,526	101,628	.7369	107,070	101,628
3	10,220	72,380	53,335	154,697	.8182	75,335	154,697
4	11,184	61,497	46,823	196,524	.7614	63,675	196,524
5	13,095	58,077	44,219	235,509	.7614	52,364	235,509
6	13,813	54,855	41,766	272,883	.7614	41,370	272,883
7	16,509	51,813	39,450	306,739	.7614	30,662	306,739
8	19,031	48,933	37,257	337,235	.7614	20,212	337,235
9	21,408	46,188	35,167	364,484	.7614	10,000	364,484
10	412,250	43,587	33,187	0	.7614	0	0
Total	534,410	595,380					
PV 4%	376,251	494,161	376,251		0.7614		
PV 2%	447,209	541,082			0.8265		

Based on Table 4 above, at the end of year 3, the insurer will increase the liability for FPB and recognize a cumulative catch up adjustment of \$5,888 in net income. It is important to note that in year 3, the present value of loading without the \$5,888 catch-up is \$69,447 (\$75,335-\$5,888 above). In the net income view of the retrospective model the loading is not properly considered since the catch up adjustment is made without regard to expected loading that is spread over the life of the contract.

There is an inconsistency in the OCI treatment in that the company is asked to discount future net premiums at 2% wherein the net premiums are calculated at 4%. This inconsistency creates misleading volatility in OCI. This issue will be addressed in the discussion of OCI. Therefore, we recommend that the net premium be recalculated when calculating the component of the reserve that goes through other comprehensive income.

Prospective Model

The prospective method recognizes the new view of experience ratably as the company records the associated future revenue. The net premium is calculated as the PV of future benefits and expenses less the accumulated reserve divided by the PV of future gross premiums (all values calculated as of the beginning of the year):

$$\text{NPR} = (389,721 - 101,628) / 373,171 = 0.7720$$

The prospective method recognizes the change in profitability in the same period as the updated experience is recognized. As the NPR remains less than 100%, there are no losses to recognize and the current period profitability is recorded consistently with the anticipated future profitability. There is no loss in this example, as the unlocking of additional future benefits has been offset by the unlocking of loading which is in part compensation to the company to cover the risk of the variability of cash flows, profit and other provisions

Table 5: Prospective approach

Year	Benefits and Expenses [A=Given]	Gross premiums [B=Given]	NPR [C= See above]	Prospective Reserve [D]	EOY PV Loading (4%): Reserve + PVF (B) - PVF (A) [E]	Final Reserve: Col D -Col F (if neg) [F]
1	8,300	81,340	0.7369	51,637	101,224	51,637
2	8,600	76,710	0.7369	101,628	85,088	101,628
3	10,220	72,380	0.7720	151,350	71,988	151,350
4	11,184	61,497	0.7720	193,695	60,846	193,695
5	13,095	58,077	0.7720	233,183	50,038	233,183
6	13,813	54,855	0.7720	271,045	39,532	271,045
7	16,509	51,813	0.7720	305,377	29,300	305,377
8	19,031	48,933	0.7720	336,337	19,315	336,337
9	21,408	46,188	0.7720	364,040	9,556	364,040
10	412,250	43,587	0.7720	0	0	0
PV (3-10) @4%	389,721	373,171				
PV (1-10) @ 4%	376,251	494,161	0.7614			

Other Comprehensive Income and Discount Rate Changes

The proposed ASU Example 6 provided a change in discount rate from 4% to 2% in year 3. In year 3, the effect of changes in the discount rate which is calculated as the difference in the aggregate present value of reserves of the reserves using 4% versus 2% discount rate and it is included in other comprehensive income. As an example, the changes in interest rate under the retrospective and prospective approaches would be as follows:

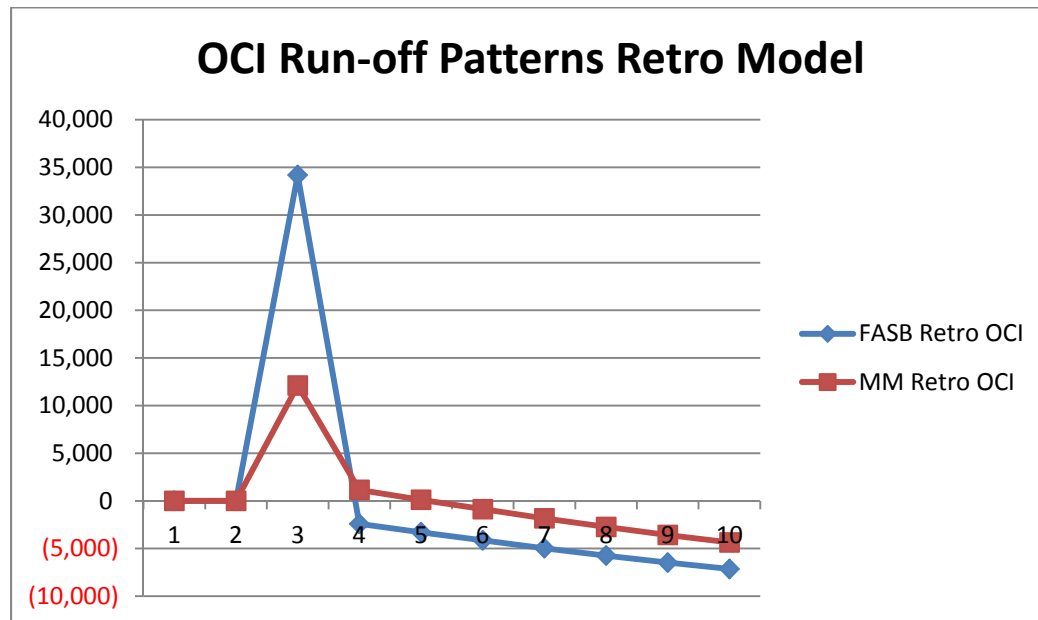
Table 6A: Comparison of OCI Run-off for Retro and Prospective Models

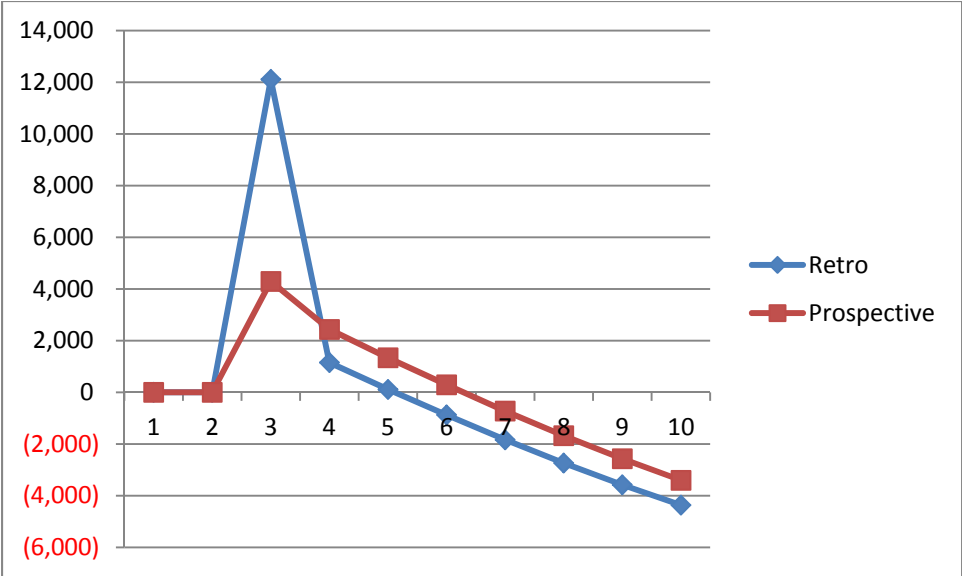
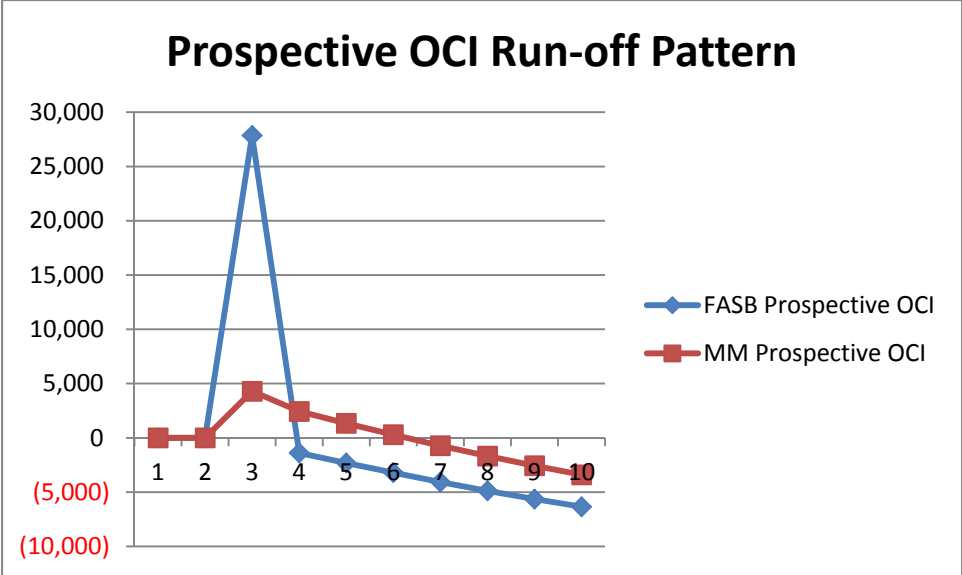
Year	4% Liability for FPB	2% Liability for FPB Retro Model NPR 76.14%	FASB OCI Retro Model (pre-tax)	2% Liability for FPB Prospective Model	OCI Prospective Model (pre-tax)
1	51,637	51,637	0	51,637	0
2	101,628	101,628	0	101,628	0
3	154,697	188,880	34,183	182,558	27,862
4	196,524	228,297	(2,410)	222,996	(1,390)
5	235,509	263,987	(3,295)	259,663	(2,318)
6	272,883	297,220	(4,141)	293,833	(3,204)
7	306,739	326,106	(4,971)	323,617	(4,072)
8	337,235	350,854	(5,747)	349,228	(4,885)
9	364,484	371,631	(6,472)	370,834	(5,643)
10	0	0	(7,147)	0	(6,350)
Total	N/A	N/A	0	N/A	0

The retro and prospective model OCI amounts are different at the end of year 3 because the net premium ratios are different at 76.14% versus 77.20% giving rise to different liability for future policy benefits at a 2% discount rate. However, assuming no further changes in the discount rate, the OCI will grade to zero at the end of year 10.

Table 6B: Comparison of OCI Run-off for Retro and Prospective Models

Year	4% Liability for FPB Retro Model NPR 76.14%	2% Liability for FPB Retro Model NPR 82.65%	FASB OCI Retro Model (pre-tax)	4% Liability for FPB Prospective Model NPR 77.20%	2% Liability for FPB Prospective Model NPR 85.94%	FASB OCI Prospective Model (pre-tax)
1	51,637	51,637	0	51,637	51,637	0
2	101,628	101,628	0	101,628	101,628	0
3	154,697	166,809	12,113	151,350	155,647	4,297
4	196,524	209,789	1,153	193,695	200,429	2,437
5	235,509	248,891	117	233,183	241,256	1,339
6	272,883	285,394	(871)	271,045	279,413	295
7	306,739	317,417	(1,834)	305,377	313,022	(723)
8	337,235	345,178	(2,735)	336,337	342,307	(1,676)
9	364,484	368,848	(3,578)	364,040	367,441	(2,568)
10	0	0	(4,364)	0	0	(3,401)
Total	N/A	N/A	0	N/A	N/A	0





Financial Statement Implications of Locked-in, Retro and Prospective Approaches

The potential impact of the three approaches on the NPR, loading, net income, liability for future policy benefits and equity are shown in the Tables and graphs below. In accord with current GAAP, the loss recognition test is done at 2% and recorded in product income. For retrospective and current models, the NPR below is based on 4% discount rate assumption. If a 2% discount rate assumption is used, the NPR would be higher than what is shown below.

Table 7: Adjusted Net premium ratio @ 4% discount rate

Year	Benefits and Expenses [A]	Gross Premiums [B]	Current Adj. Net Prem	Retro Adj. Net Prem	Pro Adj. Net Prem	Curr Adj. NPR	Retro Adj. NPR	Pro Adj. NPR
1	8,300	81,340	59,937	59,937	59,937	73.69%	73.69%	73.69%
2	8,600	76,710	56,526	56,526	56,526	73.69%	73.69%	73.69%
3	10,220	72,380	53,335	59,223	55,877	73.69%	81.82%	77.20%
4	11,184	61,497	45,315	46,823	47,475	73.69%	76.14%	77.20%
5	13,095	58,077	42,795	44,219	44,835	73.69%	76.14%	77.20%
6	13,813	54,855	46,390	41,766	42,348	84.57%	76.14%	77.20%
7	16,509	51,813	51,813	39,450	39,999	100.00%	76.14%	77.20%
8	19,031	48,933	48,933	37,257	37,776	100.00%	76.14%	77.20%
9	21,408	46,188	46,188	35,167	35,657	100.00%	76.14%	77.20%
10	412,250	43,587	43,587	33,187	33,649	100.00%	76.14%	77.20%
PV 3-10	389,721	373,181	319,086	288,093	288,093	85.50%	77.20%	77.20%
PV 1-10	376,251	494,161	404,906	376,251	376,251	81.94%	76.14%	76.14%

The effect of the prospective model is to record the emerging experience against the loading consistent with the period over which it is expected to emerge. The effect of the retrospective method is to record the entire difference in the future view of emerging experience in the period in which the view changes. Either the retro or prospective models produces the same present value of net premiums for all years (weighted average NPR is 76.14%) or just the years after (weighted average NPR is 77.20%) the future experience changes are recognized (years 3 to 10).

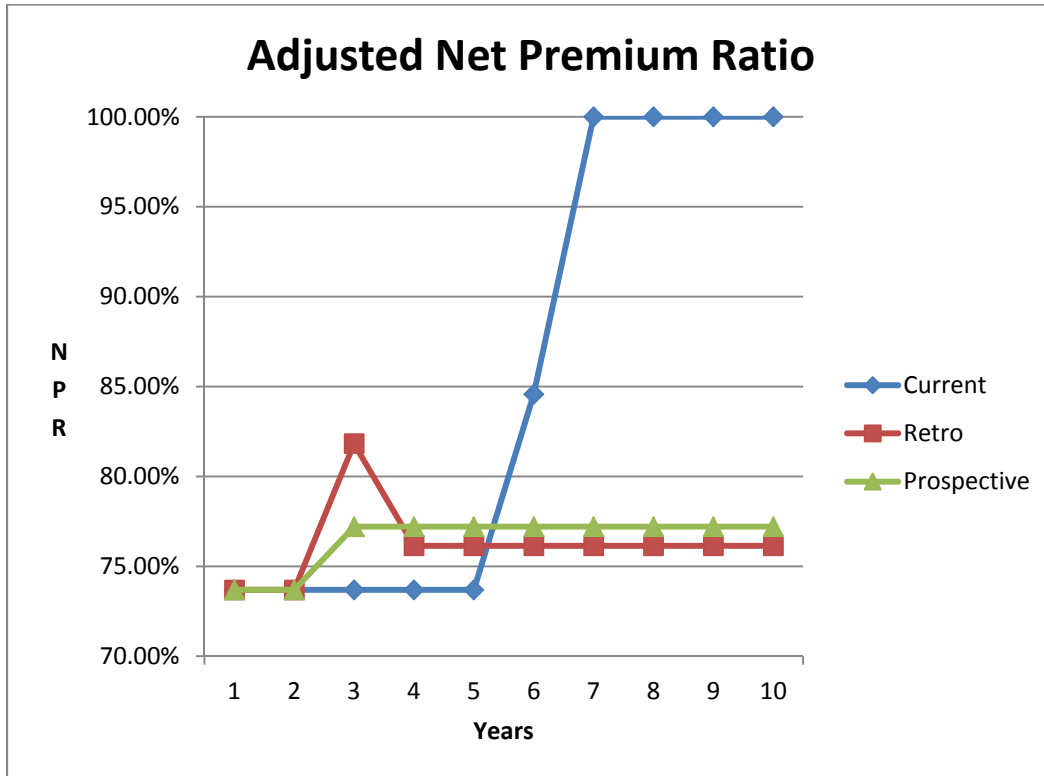


Table 8a: Present Value of Future Loading

End of Year	Initial	Current	Retro	Prospective
1	122,360	122,360	122,360	122,360
2	107,070	107,070	107,070	107,070
3	92,307	92,307	75,335	71,988
4	78,020	22,521	63,675	60,846
5	64,161	8,140	52,364	50,038
6	50,690	0	41,370	39,532
7	37,570	0	30,662	29,300
8	24,766	0	20,212	19,315
9	12,253	0	10,000	9,556
10	0	0	0	0

Table 8b: Annual Loading

End of Year	Gross Premium	Current Loading	Retro Loading	Prospective Loading
1	81,340	21,403	21,403	21,403
2	76,710	20,184	20,184	20,184
3	72,380	19,045	13,157	16,503
4	61,497	16,182	14,674	14,022
5	58,077	15,282	13,858	13,242
6	54,855	8,465	13,089	12,507
7	51,813	0	12,363	11,814
8	48,933	0	11,676	11,157
9	46,188	0	11,021	10,531
10	43,587	0	10,400	9,938
PV 3-10	373,181	54,095	85,088	85,088
PV All	494,161	89,255	117,910	117,910

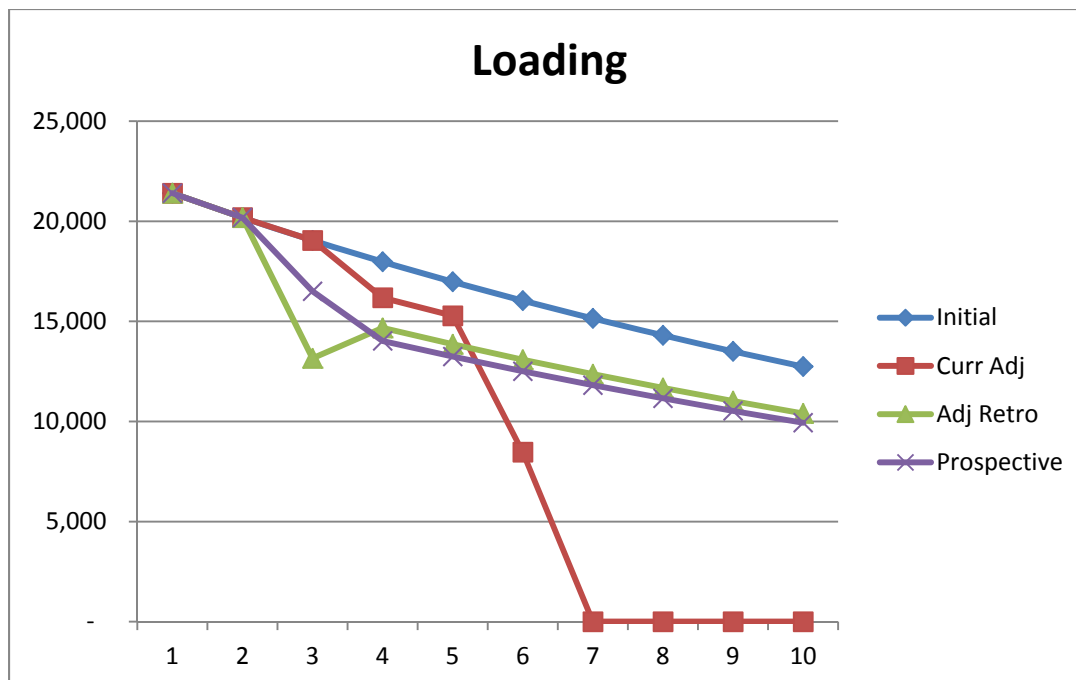


Table 9: Product Income
 (NII: 4% Yrs 1-3; 2% after)

Year	Pricing	Current	Retro	Prospective
1	21,403	21,403	21,403	21,403
2	20,184	20,184	20,184	20,184
3	19,045	19,045	13,157	16,503
4	17,979	27,874	11,822	10,995
5	16,980	10,852	10,192	9,368
6	16,038	3,232	8,646	7,844
7	15,148	0	7,155	6,393
8	14,306	0	5,754	5,050
9	13,504	0	4,435	3,804
10	12,743	0	3,198	2,657
Sum	167,331	102,591	104,462	104,201

Differences in product income from years 3 to 10 arise from (1) different levels of reserves and related net investment income assumptions, and (2) the extent of unlocking adverse changes in future cash flows assumptions against the loading.

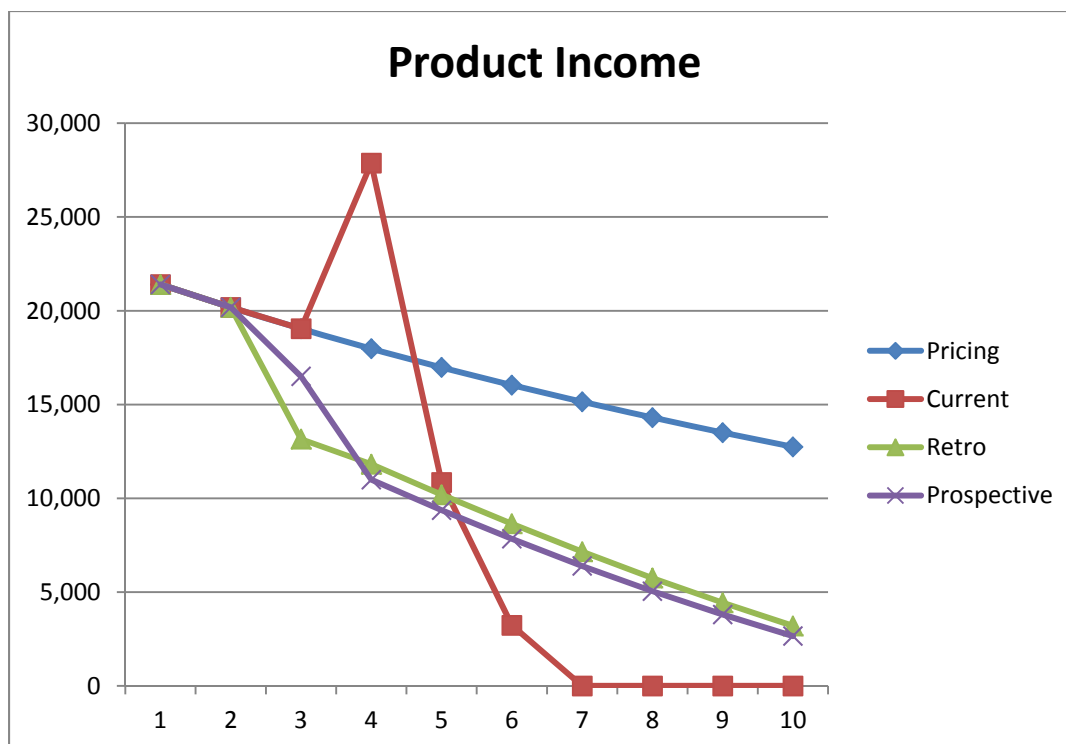


Table 10: Total Equity

Year	Current	Retro	Prospective
1	13,912	13,912	13,912
2	27,032	27,032	27,032
3	39,411	23,471	33,462
4	57,529	30,002	38,171
5	64,583	36,510	42,921
6	66,684	43,001	47,725
7	66,684	49,485	52,604
8	66,684	55,960	57,562
9	66,684	62,421	62,603
10	66,684	68,864	67,731

Total equity is estimated as retained earnings plus accumulated after comprehensive income assuming 35% hypothetical tax rate. Differences in total equity from years 3 to 10 arise from (1) different levels of reserves and related net investment income assumptions, (2) the extent of unlocking adverse changes in future cash flows assumptions against the loading, and (3) differences in the amount and timing of recording interest rate changes in other comprehensive income.

