



Axene Health Partners, LLC

Health Actuaries & Consultants

www.axenehp.com

David V. Axene, FCA, FSA, MAAA

David.axene@axenehp.com

August 25, 2010

Mr. Adam M. Cole
General Counsel
California Department of Insurance
45 Fremont Street
Suite 2300
San Francisco, CA 94105

Re: Review of Blue Shield of California Rate Filing

Dear Adam:

We have completed our review of the BSC Rate Filing as requested. Our assignment was as follows:

- Review current BSC rate filing to become familiar with them, the benefit plans, rating structure and methodologies used to develop rates and rate increases
- Review correspondence between the Department and BSC regarding rates and rate filings
- Familiarize ourselves with extensive data provided to the Department by BSC regarding these rates, rate filings, and rate increases
- Develop list of additional information needed from BSC, communicate that to the Department, and request from BSC
- Identify all key actuarial assumptions used by BSC to prepare information for rate filing
- Evaluate all key actuarial assumptions
- Independently develop sample rates for validation and comparison to BSC rates
- Validate BSC calculations to determine appropriateness and accuracy
- Test rates to determine whether they meet loss ratio requirements of the Department (i.e., the 70% lifetime loss ratio rule)
- Clarify our understanding of Department's position on loss ratio testing and what elements can be included to satisfy the loss ratio requirements.
- Provide oral report as soon as information is available

35067 Mahogany Glen Drive, Winchester, CA 92596

951.294.0841 619.839.3980 fax

- Communicate with the department on a regular basis as to progress on project and any interim findings
- Prepare written report for Department
- Present findings of report as directed by department (i.e., hearing, etc.)

We have accessed a significant number of materials for this review including multiple additional data requests from BSC. This information was collected by the California Department of Insurance and provided by them to us for our analysis. We independently reviewed this information without direct communication with or explanation by BSC staff. We developed multiple data requests and lists of questions that BSC responded to. We do not have any concern about our understanding of the information. If any of the information we reviewed was incomplete or inaccurate, our findings and conclusions may be affected. We have assumed that the responses provided by BSC are complete and accurate. We are not expressing an opinion about the accuracy of the information provided BSC. We are not aware of any effort by BSC to misrepresent any of the information we reviewed.

Summary of Findings

Our key findings are as follows:

- BSC has priced these policies using a policy lifetime average duration which has the effect of increasing early year prices higher than they need to be to pay claims in anticipation of greater claims in later policy years. This "front loading" of policies is consistent with a pricing model that would establish active life reserves for these policies, essentially retaining excess funds until later policy years when required to pay claims greater than the average. Historically, BSC did not establish active life reserves. We recommend that BSC either remove this "front loading" or establish active life reserves. We are advised that BSC now is establishing active life reserves at the direction of the Department.
- We found no material errors in the BSC rate filing, other than the previously mentioned information.
- The BSC methodology used to both make rates and develop the lifetime loss ratio was straightforward and relatively easy to follow (i.e., much easier to follow and understand than other company filings)
- With only a few minor exceptions, BSC sets premiums for each of their plans to achieve a specific lifetime durational factor. These exceptions have been associated with plans with limited sales volume. This practice is consistent with a practice that also establishes active life reserves. Because

the company has now agreed to establish these reserves, this practice is reasonable and acceptable to the Department.

- With only a few minor exceptions, BSC sets premiums for each of their plans to achieve a specific lifetime durational factor. These exceptions have been associated with plans with limited sales volume. This practice is consistent with a practice that also establishes active life reserves. Since the company has not established these, this practice is not reasonable and not acceptable to the Department.
- BSC has appropriately grouped plans without credible experience to comply with the Department requirements
- BSC underlying PPO trend assumptions are reasonable and slightly below our assumptions. BSC has reasonably adjusted trend for the impact of deductible leveraging.
- BSC's overall lifetime loss ratio is 81.6% based upon a premium and claims trend of 18% in the outyears. Reducing this to a 10% level to be consistent with the Department's recommendations in the Anthem Blue Cross filing reduces the lifetime loss ratio to 78.7%.
- BSC's assumption that future rate increases will be less than claim cost increases further increases the lifetime loss ratio above what it would be in an environment that matches rate increases to increases in claims cost. Adjusting for this results in lower rates. In the aggregate we would expect rates 2% - 3% lower than requested.
- BSC used reasonable lapse rate assumptions.
- Sensitivity analysis performed on BSC assumptions showed no major concern areas.
- The filed rate structure does not meet the requirements of the Patient Protection and Affordable Care Act of 2010 and California Insurance Code, Section 10140.2(a) (i.e., gender specific rates) and will need additional adjustments to comply.

Overview of Rate Development Process

BSC prepared a very useful summary exhibit summarizing the rate development process by plan. This is presented in the next few pages. The rate development process is shown for each plan on a consistent step-by-step process. We have used this form as a tool in walking through the rate development process.

Plan Code	CK	7T	CB	7U	7Q	7R	7S	O2	O3	7P	CM	CN	XK	XO	MO	DM	DO	7I	7V	9S	9U	9W	9T	9V	9X				
Plan Name	Active Start 25	Active Start 25 GenRx	Active Start 35	Active Start 35 GenRx	Balance 1000	Balance 1700	Balance 2500	PPO 1500 (DOI)	PPO 2000 (DOI)	Essential 1750	Essential 3000	Essential 4500	PPO 5000	PPO Savings 1800	PPO Savings 4000	PSP 3500	PSP 5200	Vital Shield 900	Vital Shield 2900	Vital Shield Plus 400	Vital Shield Plus 900	Vital Shield Plus 2900	Vital Shield Plus Gen Rx 400	Vital Shield Plus Gen Rx 900	Vital Shield Plus Gen Rx 2900	DOI Total	DMHC Total	UW TOTAL	
Member Months																													
Baseline	65,528	11,389	175,333	68,875	154,698	103,980	285,917	1,431	31,322	129,757	41,597	46,855	382,262	37,728	404,248	15,205	20,693	88,303	226,999	5,428	4,936	2,741	16,678	20,583	15,585	2,358,069	1,571,788	3,929,858	
Projected	30,406	6,303	89,085	87,192	149,300	98,426	560,057	345	8,102	75,410	31,127	50,223	222,853	110,628	353,047	255,633	193,930	131,397	224,334	39,101	45,286	21,039	98,447	176,020	113,563	3,171,253	757,788	3,929,042	
Admin PMPM's																													
PMPM Admin	193.25	170.60	197.38	165.15	176.28	207.15	171.17	365.63	340.51	251.89	178.86	164.84	201.42	164.34	160.56	168.75	192.64	104.98	119.74	143.00	128.50	127.75	107.72	101.09	96.10	176.25	340.53	241.96	
% Alloc Admin	202.67	178.92	207.00	173.20	184.88	217.26	179.52	383.46	357.12	264.18	187.59	172.89	211.24	172.35	168.40	176.98	202.04	110.10	125.58	149.97	134.77	133.98	112.97	106.02	100.79	184.85	356.58	253.54	
Broker/Prem Tax	227.86	201.15	232.72	194.72	207.85	244.25	201.82	431.11	401.49	297.00	210.89	194.37	237.49	193.77	189.32	198.97	227.14	123.78	141.18	168.61	151.52	150.63	127.01	119.19	113.31	207.82	388.84	280.22	
Margin	247.67	218.64	252.96	211.66	225.92	265.49	219.37	468.60	436.40	322.83	229.23	211.27	258.14	210.62	205.78	216.27	246.90	134.54	153.46	183.27	164.69	163.72	138.06	129.56	123.17	225.89	422.65	304.59	
Medical Management	2.63	2.33	2.69	2.25	2.40	2.82	2.33	4.98	4.64	3.43	2.44	2.25	2.75	2.24	2.19	2.30	2.63	1.43	1.63	1.95	1.75	1.74	1.47	1.38	1.31	2.40	4.50	3.24	
GI Load	7.23	6.26	7.40	6.02	6.50	7.82	6.28	14.61	13.53	9.74	6.61	6.01	7.58	5.99	5.83	6.18	7.20	3.45	4.08	5.07	4.45	4.42	3.56	3.28	3.07	6.50	13.66	9.36	
Medical Management	2.63	2.33	2.69	2.25	2.40	2.82	2.33	4.98	4.64	3.43	2.44	2.25	2.75	2.24	2.19	2.30	2.63	1.43	1.63	1.95	1.75	1.74	1.47	1.38	1.31	2.40	4.50	3.24	
Pricing CoHC	171.00	148.05	175.19	142.52	153.80	185.10	148.62	345.73	320.27	230.45	156.42	142.21	179.28	141.70	137.88	146.17	170.39	81.53	96.49	120.07	105.38	104.61	84.31	77.59	72.53	153.78	320.03	220.27	
Admin / Margin / GI Load																													
PMPM	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	24.88	25.01	24.93
% Rev Allocated	6.79	6.00	6.94	5.81	6.20	7.28	6.02	12.85	11.97	8.86	6.29	5.79	7.08	5.78	5.64	5.93	6.77	3.69	4.21	5.03	4.52	4.49	3.79	3.55	3.38	6.20	11.54	8.33	
GI Load	7.23	6.26	7.40	6.02	6.50	7.82	6.28	14.61	13.53	9.74	6.61	6.01	7.58	5.99	5.83	6.18	7.20	3.45	4.08	5.07	4.45	4.42	3.56	3.28	3.07	6.50	13.66	9.36	
Comm/Prem Tax	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	10.2%	7.6%	8.8%
Margin (pre caps and floors)	5.1%	5.1%	5.1%	5.2%	5.1%	5.1%	5.1%	4.9%	4.9%	5.0%	5.1%	5.2%	5.1%	5.2%	5.2%	5.1%	5.1%	5.4%	5.3%	5.2%	5.3%	5.3%	5.4%	5.5%	5.5%	5.1%	4.8%	4.9%	
Required Revenue	247.67	218.64	252.96	211.66	225.92	265.49	219.37	468.60	436.40	322.83	229.23	211.27	258.14	210.62	205.78	216.27	246.90	134.54	153.46	183.27	164.69	163.72	138.06	129.56	123.17	225.89	422.65	304.59	
Required Rate Increase																													
Pre - Blending/Area Adjustments	6.3%	8.1%	16.5%	28.1%	22.0%	12.2%	16.0%	3.6%	45.7%	56.5%	19.2%	9.5%	14.1%	11.3%	10.8%	22.5%	21.6%	37.1%	39.2%	28.3%	32.7%	25.3%	22.0%	26.1%	24.6%	19.7%	13.0%	15.9%	
Blending and Area Adjustments	0.4%	-1.0%	0.1%	0.6%	0.6%	0.0%	0.0%	10.6%	-21.6%	0.0%	0.3%	0.0%	0.0%	0.2%	-0.3%	0.0%	0.3%	1.0%	-0.3%	-2.0%	-5.1%	0.7%	3.0%	-0.4%	1.1%	-0.5%	0.2%	-0.1%	
Plan Increase (pre caps and floors)	6.7%	6.9%	16.6%	28.9%	22.7%	12.1%	16.0%	14.6%	14.2%	56.5%	19.5%	9.4%	14.0%	11.5%	10.4%	22.5%	21.9%	38.5%	38.8%	25.8%	26.0%	26.2%	25.6%	25.7%	25.9%	19.1%	13.3%	15.8%	
Impact of Caps and Floors	7.9%	7.4%	2.0%	-4.6%	-2.0%	3.7%	1.8%	1.0%	1.6%	-17.8%	0.1%	5.9%	2.3%	5.2%	5.3%	-1.1%	-0.9%	-10.1%	-10.4%	-2.4%	-2.2%	-3.2%	-2.7%	-2.3%	-3.1%	-0.3%	2.4%	1.2%	
Final Increase	15.1%	14.9%	18.9%	23.0%	20.3%	16.3%	18.1%	15.8%	16.0%	28.6%	19.7%	15.8%	16.6%	17.3%	16.3%	21.1%	20.8%	24.6%	24.4%	22.8%	23.3%	22.2%	22.3%	22.8%	21.9%	18.8%	16.0%	17.2%	

The chart begins with baseline (i.e., historical) and projected member months for each plan. The baseline premium is adjusted for previous rate increases getting to what would be a current rate. The baseline period was the 12 month period ending September 30, 2009. Similar information was collected for claims, with adjustments for claims pooling (i.e., catastrophic claims), credibility, trend, policy duration, adverse deviation margin, etc. After administrative expenses and profit margins were added, the required revenue was calculated and compared to current rates to determine the rate increases. This is a very logical and reasonable approach to develop rates and was straightforward to follow through its development. However, the key compliance issue in California is whether or not these rates meet the 70% lifetime loss ratio test.

BSC subsequently checked this out using a 25 year projection model as shown in the next table for Active Start 25.

Blue Shield of California Life & Health Insurance Company.
 Plan - Active Start 25

Discount Rate		2.11%					
Year	Member Months	Cost of			DISCOUNTED		
		Revenue	Health Care	Loss Ratio	Revenue	Health Care	Loss Ratio
2004	0	\$0.00	\$0.00	0.0%	\$0.00	\$0.00	0.0%
2005	0	\$0.00	\$0.00	0.0%	\$0.00	\$0.00	0.0%
2006	55,593	\$116.73	\$87.17	74.7%	\$124.27	\$92.81	74.7%
2007	104,327	\$140.70	\$113.11	80.4%	\$146.70	\$117.93	80.4%
2008	88,060	\$161.68	\$118.37	73.2%	\$165.09	\$120.86	73.2%
2009	58,330	\$198.49	\$127.61	64.3%	\$198.49	\$127.61	64.3%
2010	36,567	\$239.85	\$156.92	65.4%	\$234.90	\$153.68	65.4%
2011	25,803	\$285.25	\$193.42	67.8%	\$273.58	\$185.51	67.8%
2012	20,401	\$333.35	\$239.22	71.8%	\$313.11	\$224.69	71.8%
2013	16,669	\$388.05	\$289.85	74.7%	\$356.96	\$266.62	74.7%
2014	13,919	\$451.73	\$349.80	77.4%	\$406.94	\$315.12	77.4%
2015	11,807	\$525.85	\$425.46	80.9%	\$463.93	\$375.36	80.9%
2016	10,156	\$612.14	\$510.46	83.4%	\$528.90	\$441.04	83.4%
2017	8,853	\$712.59	\$607.25	85.2%	\$602.97	\$513.84	85.2%
2018	7,793	\$829.53	\$715.11	86.2%	\$687.41	\$592.59	86.2%
2019	6,897	\$965.65	\$838.32	86.8%	\$783.67	\$680.34	86.8%
2020	6,121	\$1,124.10	\$977.71	87.0%	\$893.42	\$777.07	87.0%
2021	5,441	\$1,308.56	\$1,139.07	87.0%	\$1,018.53	\$886.60	87.0%
2022	4,838	\$1,523.29	\$1,325.98	87.0%	\$1,161.17	\$1,010.76	87.0%
2023	4,302	\$1,773.25	\$1,543.57	87.0%	\$1,323.78	\$1,152.31	87.0%
2024	3,825	\$2,064.23	\$1,796.86	87.0%	\$1,509.16	\$1,313.68	87.0%
2025	3,402	\$2,402.96	\$2,091.71	87.0%	\$1,720.50	\$1,497.65	87.0%
2026	3,025	\$2,797.27	\$2,434.95	87.0%	\$1,961.44	\$1,707.38	87.0%
2027	2,690	\$3,256.29	\$2,834.51	87.0%	\$2,236.11	\$1,946.48	87.0%
2028	2,392	\$3,790.63	\$3,299.64	87.0%	\$2,549.26	\$2,219.06	87.0%
2029	2,127	\$4,412.65	\$3,841.09	87.0%	\$2,906.25	\$2,529.81	87.0%
2030	1,891	\$5,136.74	\$4,471.39	87.0%	\$3,313.24	\$2,884.09	87.0%
2031	1,682	\$5,979.64	\$5,205.12	87.0%	\$3,777.23	\$3,287.97	87.0%
2032	1,495	\$6,960.87	\$6,059.25	87.0%	\$4,306.19	\$3,748.42	87.0%
2033	1,330	\$8,103.11	\$7,053.53	87.0%	\$4,909.23	\$4,273.35	87.0%
2034	1,182	\$9,432.78	\$8,210.98	87.0%	\$5,596.71	\$4,871.78	87.0%
Historical	306,310	\$153.39	\$112.67	73.5%	\$157.78	\$116.06	73.6%
Projected	204,606	\$979.38	\$820.49	83.8%	\$737.87	\$612.17	83.0%
Lifetime	510,916	\$484.17	\$396.13	81.8%	\$390.09	\$314.74	80.7%

We carefully reviewed both the premium development and the projected lifetime loss ratio calculations for each of the plans and assessed whether or not we agreed with the results developed by BSC.

Table 1 summarizes the projected lifetime loss ratios for each of the BSC plans as developed by BSC.

Table 1 BSC Projected Lifetime Loss Ratios by Plan*

Plan	2010 Member Months	2010 PMPM Revenue	2009 Loss Ratio	Lifetime Loss Ratios		
				Historical	Future	Total
Active Start 25	36,567	\$239.85	64.3%	73.6%	83.0%	80.7%
Active Start 25 GenRx	7,232	\$181.99	136.5%	117.1%	88.9%	93.5%
Active Start 35	104,635	\$231.68	60.9%	71.7%	82.8%	80.2%
Active Start 35 GenRx	82,837	\$169.66	81.2%	87.5%	87.5%	88.2%
Balance 1000	146,380	\$192.26	68.8%	68.5%	87.0%	85.5%
Balance 1700	100,585	\$247.19	77.3%	79.5%	85.6%	85.2%
Balance 2500	493,741	\$200.92	66.6%	64.6%	83.5%	82.9%
PPO 1500 (DOI)	592	\$332.72	99.6%	110.8%	112.2%	111.7%
PPO2000 (DOI)	15,286	\$274.79	84.9%	80.3%	84.1%	83.0%
Essential 1750	93,387	\$212.71	90.3%	89.3%	109.5%	107.3%
Essential 3000	34,889	\$199.89	75.6%	74.3%	88.2%	86.5%
Essential 4500	51,690	\$197.45	51.3%	53.4%	80.5%	78.6%
PPO 5000	260,790	\$241.56	71.6%	66.9%	76.3%	74.7%
PPO Savings 1800	96,061	\$204.87	55.3%	53.6%	80.9%	80.4%
PPO Savings 4000	370,620	\$191.86	73.5%	61.4%	83.3%	81.3%
PSP 3500	188,514	\$192.89	45.8%	45.8%	82.5%	82.2%
PSP 5200	160,402	\$235.44	54.1%	54.1%	85.1%	84.9%
Vital Shield 900	165,963	\$103.43	70.3%	69.5%	83.0%	82.5%
Vital Shield 2900	271,868	\$115.76	63.1%	60.9%	86.5%	84.9%
Vital Shield Plus 400	30,503	\$155.94	81.7%	81.7%	75.2%	75.3%
Vital Shield Plus 900	32,997	\$142.72	63.9%	63.9%	71.4%	71.3%
Vital Shield Plus 2900	15,836	\$146.42	34.5%	34.5%	77.5%	77.0%
Vital Shield Plus Gen Rx400	77,043	\$125.00	60.8%	60.8%	71.5%	71.3%
Vital Shield Plus Gen Rx 900	134,494	\$114.61	66.0%	66.0%	69.0%	69.0%
Vital Shield Plus Gen Rx 2900	87,505	\$110.91	49.8%	49.8%	70.4%	70.1%
All Plans	3,060,415	\$184.65	69.5%	68.8%	82.7%	81.6%

*Loss ratios less than 70% have been shown in bold font

We are most comfortable combining plans by key product form to minimize any concerns regarding credibility of experience. Table 2 presents the above data in this format.

Table 2 BSC Projected Lifetime Loss Ratios by Common Plan

Plan	2010 Member Months	2010 PMPM Revenue	2009 Loss Ratio	Lifetime Loss Ratios		
				Historical	Future	Total
Active Start	231,270	\$209	67.9%	74.7%	84.5%	82.5%
Balance Plans	740,706	\$205	69.4%	68.9%	84.4%	83.7%
PPO (DOI) Plans	15,878	\$200	85.9%	82.6%	85.4%	84.6%
Essential Plans	179,965	\$206	77.1%	77.4%	107.4%	101.7%
PPO 5000	727,471	\$211	71.5%	64.7%	80.1%	78.4%
PSP Plans	348,916	\$212	50.7%	50.7%	83.9%	83.7%
Vital Shield Plans	816,209	\$117	64.1%	62.6%	77.7%	77.2%
All Plans	3,060,415	\$185	69.5%	68.8%	82.7%	81.6%

Although Table 1 shows that one plan (i.e., Vital Shield Plus GenRx 900) is potentially out of compliance, the membership is not large enough to be credible for this plan. Combining the plans in Table 2, shows that each of the major plan combinations have a lifetime loss ratio above 70%.

All of our analysis has been focused on the validation of the initial premium buildup and the analysis of lifetime loss ratios shown in Table 2.

Analysis of Rate Development

Beginning with the rate development process, we have reviewed in depth each of the key assumptions and adjustments as completed by BSC. We have included comments on each of the key items.

- **PMPM Revenue for experience period:** We compared the PMPM revenue for each of the plans as shown on “Request A” to that provided by BSC in separate information. As Table 3 shows the premium information is internally consistent.

Table 3 Comparison of Revenue PMPM by Plan

Plan	Baseline Revenue PMPM (10/2008 - 9/2009)	Revenue PMPM Derived from Premium Records
Active Start 25	\$189.53	\$190
Active Start 25 GenRx	\$155.96	\$156
Active Start 35	\$186.29	\$187
Active Start 35 GenRx	\$136.47	\$137
Balance 1000	\$156.02	\$156
Balance 1700	\$193.04	\$193
Balance 2500	\$166.53	\$167
PPO 1500 (DOI)	\$321.95	\$318
PPO2000 (DOI)	\$199.76	\$200
Essential 1750	\$163.18	\$165
Essential 3000	\$168.73	\$170
Essential 4500	\$164.96	\$166
PPO 5000	\$199.00	\$199
PPO Savings 1800	\$156.21	\$155
PPO Savings 4000	\$168.03	\$168
PSP 3500	\$191.22	\$191
PSP 5200	\$220.37	\$220
Vital Shield 900	\$90.46	\$93
Vital Shield 2900	\$98.41	\$99
Vital Shield Plus 400	\$129.05	\$129
Vital Shield Plus 900	\$123.37	\$123
Vital Shield Plus 2900	\$129.33	\$129

Vital Shield Plus Gen Rx400	\$104.54	\$104
Vital Shield Plus Gen Rx 900	\$99.51	\$99
Vital Shield Plus Gen Rx 2900	\$97.66	\$97
All Plans	\$163.53	\$164

BSC developed a summary of previous rate increases and adjustments to transition the above premium rates to current rate levels. These adjustments were reasonable and correctly completed.

- **PMPM Claims for experience period:** We compared claims PMPM for each of the plans as shown on the rate development summary to amounts produced by BSC in separate information. Table 4 shows that the information is internally consistent.

Table 4 Comparison of Claims PMPM by Plan

Plan	Baseline Revenue PMPM (10/2008 - 9/2009)	Revenue PMPM Derived from Premium Records
Active Start 25	\$118.30	\$119
Active Start 25 GenRx	\$203.49	\$201
Active Start 35	\$111.97	\$111
Active Start 35 GenRx	\$110.57	\$111
Balance 1000	\$101.86	\$103
Balance 1700	\$148.39	\$148
Balance 2500	\$106.07	\$108
PPO 1500 (DOI)	\$319.60	\$312
PPO2000 (DOI)	\$168.89	\$168
Essential 1750	\$149.76	\$149
Essential 3000	\$136.98	\$137
Essential 4500	\$79.32	\$79
PPO 5000	\$140.34	\$140
PPO Savings 1800	\$64.39	\$64
PPO Savings 4000	\$110.26	\$109
PSP 3500	\$57.83	\$58
PSP 5200	\$85.94	\$83
Vital Shield 900	\$65.03	\$68
Vital Shield 2900	\$62.16	\$62
Vital Shield Plus 400	\$60.85	\$61
Vital Shield Plus 900	\$66.19	\$65
Vital Shield Plus 2900	\$36.94	\$37
Vital Shield Plus Gen Rx400	\$60.21	\$60
Vital Shield Plus Gen Rx 900	\$63.07	\$64
Vital Shield Plus Gen Rx 2900	\$49.77	\$53
All Plans	\$110.44	\$110

Claims were adjusted for pooling of catastrophic claims, individually by plan adjusted for credibility with company rating manual, trended to the middle of the projection period (i.e., varied by plan based upon actual distribution of business by renewal date) to determine an adjusted base period claims level. Table 4 shows that the claims values were reasonable compared to independent data.

- **Health Care Trend Adjustment:** Trend adjustments were based upon underlying trend assumptions for each calendar year time period between the center of the experience period (i.e., middle of 10/1/2008 – 9/30/2009) to the projection period (i.e., rates effective beginning 7/1/2010 through 12/31/2010). The trend assumptions for these three time periods ranged from 10.7% for trend between 2008 and 2009 to 12.4% for the trend between 2010 to 2011. These trend values were for the underlying trend assumption prior to any adjustment for plan design (i.e., trend leveraging), wear-off of selection, aging, etc. As described in the previously prepared report for the Anthem Blue Cross rate filing, our firm's trend assumption for projecting 2010 to 2011 is 13.5% (i.e., underlying assumption of 11.5% with a 2% margin). The 12.4% assumption is very reasonable in light of this. BSC includes an explicit 1% margin (i.e., called PFAD or Provision for Adverse Deviation) in another adjustments for claims. This adjustment if included in the trend assumption would raise the 12.4% trend assumption to 13.4%, very close to our 13.5% assumption. Since BSC includes an additional margin later in the calculations it is reasonable to allocate this 1% PFAD margin with the trend assumption for comparison purposes.

In addition to the underlying trend assumption, BSC appropriately incorporates a deductible leveraging adjustment to reflect the anticipated effect of plan design on the underlying trends. The values were based upon internal claims probability distributions based upon BSC experience. The values were reasonable and appropriately applied to the underlying trend assumptions referred to above.

- **Policy Duration Adjustment:** BSC has developed selection factors by policy duration (i.e., by month through 10 years post-issue). The non-maternity factors range from about .40 in the first month to about 1.30 for duration 120 months and beyond. Using actual distribution of enrollees by month and policy duration, we calculated composite policy duration

factors for each plan for each policy month from January 2007 through December 2009.

Table 5 Analysis of Average Duration Factor by Plan

Plan	Average Factor For 12 Month Period Ending 9/2009	Average Factor for 12/2009	Duration Adjustments
Active Start 25	0.90	0.93	6.0%
Active Start 25 GenRx	0.80	0.85	5.2%
Active Start 35	0.95	0.99	8.4%
Active Start 35 GenRx	0.80	0.85	19.9%
Balance 1000	0.85	0.89	12.6%
Balance 1700	0.97	1.00	-0.7%
Balance 2500	0.92	0.97	4.9%
PPO 1500 (DOI)	0.89	0.94	7.4%
PPO2000 (DOI)	0.93	0.96	7.1%
Essential 1750	0.81	0.86	18.5%
Essential 3000	0.88	0.91	9.6%
Essential 4500	0.84	0.88	15.1%
PPO 5000	1.08	1.10	2.7%
PPO Savings 1800	0.88	1.04	6.0%
PPO Savings 4000	1.01	1.03	-4.0%
PSP 3500	1.07	1.02	-8.7%
PSP 5200	1.14	1.13	-14.6%
Vital Shield 900	0.72	0.79	33.3%
Vital Shield 2900	0.80	0.85	19.2%
Vital Shield Plus 400	0.60	0.73	48.7%
Vital Shield Plus 900	0.63	0.77	43.4%
Vital Shield Plus 2900	0.65	0.81	33.6%
Vital Shield Plus Gen Rx400	0.60	0.75	49.5%
Vital Shield Plus Gen Rx 900	0.60	0.73	49.5%
Vital Shield Plus Gen Rx 2900	0.63	0.78	42.7%
All Plans	0.92	0.94	6.6%

The duration adjustments shown in the far right column in Table 5 are consistent with the average duration factors we calculated. BSC prices each plan using an average lifetime duration factor of .962 unless there are unique circumstances surrounding a specific plan that necessitate an alternate assumption. An example of a difference might be unusually low sales

volume on a particular plan. This is a reasonable approach and assures more appropriate pricing for most plans.

- **Provision for Adverse Deviation:** BSC adds a 1% margin to projected claims costs for all plans. As discussed above, we had assumed that this adjustment can be viewed as being similar to the “trend miss” margin we have included with our underlying trend assumption. Shifting this to the trend creates a trend assumption that is almost identical to what we have estimated. BSC adds a separate profit and risk margin later in the calculations.
- **Administrative Expense Load:** BSC builds in an administrative expense load using multiple components consisting of a fixed PMPM cost, a percentage of revenue, a load for the cost of Guarantee Issue, and a component for commissions and premium taxes. We have presented these assumptions in Table 6, and the effective pricing loss ratio for each plan including the approximate 5.1% profit margin.

Table 6 Analysis of Expense Margin and Pricing Loss Ratio

Plan	Assumed Expense Margin	Pricing Loss Ratio
Active Start 25	26.9%	68.0%
Active Start 25 GenRx	28.2%	66.6%
Active Start 35	26.7%	68.2%
Active Start 35 GenRx	28.6%	66.3%
Balance 1000	27.9%	67.0%
Balance 1700	26.3%	68.7%
Balance 2500	28.2%	66.7%
PPO 1500 (DOI)	22.4%	72.7%
PPO2000 (DOI)	22.8%	72.3%
Essential 1750	24.7%	70.3%
Essential 3000	27.7%	67.2%
Essential 4500	28.6%	66.3%
PPO 5000	26.5%	68.4%
PPO Savings 1800	28.6%	66.2%
PPO Savings 4000	28.9%	65.9%
PSP 3500	28.3%	66.5%
PSP 5200	27.0%	67.9%
Vital Shield 900	35.0%	59.5%
Vital Shield 2900	32.8%	61.8%
Vital Shield Plus 400	30.3%	64.5%
Vital Shield Plus 900	31.8%	62.9%

Vital Shield Plus 2900	31.9%	62.8%
Vital Shield Plus Gen Rx400	34.6%	60.0%
Vital Shield Plus Gen Rx 900	35.7%	58.8%
Vital Shield Plus Gen Rx 2900	36.7%	57.8%
All Plans	27.9%	67.0%

As Table 6 shows, the sum of the shown administrative expense, which does include a Guarantee Issue load, as a percent of premium plus the targeted profit/risk margin (i.e., about 5.1%) is greater than 30% for many of the plans. Only two of the plans have a single year pricing loss ratio greater than 70%. This creates a red-flag and the importance of closely checking the lifetime loss ratios for each of the plans. As an aside, when you consider the potential impact of policy duration and BSC's approach at pricing to a lifetime duration factor, it is likely than the pricing loss ratio will be less than 70% in early policy years. This approach may result in higher short term rates but will lead to more stable increases down the road since less of the durational impact is required to be included in the yearly rate increases.

- **Risk and Profit Margin:** BSC builds in a margin of approximately 5.1% into its products ranging from 4.9% to 5.5%. This is above and beyond the PDAD which we previously allocated to the trend margin. This is a reasonable pre-tax amount, although towards the high end of the range we see in this type of product (i.e., 3% - 6%). As mentioned above, this combined with the administrative expense load pushes the current pricing assumptions greater than 30%. This is not necessarily a problem in meeting the lifetime loss ratio requirements, but could become one if future rate increases are not closely monitored. As long as future rate increases roughly stay in line with the sum of assumed underlying trend, plus approximately 1% - 1.5% for deductible leveraging, plus 2% for underwriting selection wear-off, plus 1.5% for aging, there should be no lifetime loss ratio concerns as will be shown later. For the current year the above totals 18.5% (i.e., 13.5% + 1.5% + 2.0% + 1.5% = 18.5%) compared to the average 18.8% proposed by BSC.
- **Impact of Rating Tiers:** As with most carriers, BSC underwrites each policy and assigns policyholders to a rating tier based upon the results of underwriting. In the future, it is our understanding this practice will have to discontinue as part of health care reform, but it is still acceptable today. BSC provided a distribution of its business by rating tier and Table 7 shows that the overall impact of applying rating tiers leads to about a

5.23% load to rates above and beyond the standard rating tables. If no longer allowed, at some time the rates will have to be adjusted by this amount to cover the additional cost of this.

Table 7 Analysis of Rating Tier Impact on Rate Level

Rating Tier	Rating Factor	Distribution
Tier 1	1.0000	87.2%
Tier 2	1.2500	9.7%
Tier 3	1.5625	1.9%
Tier 4	1.8750	0.9%
Tier 5	3.1250	0.4%
Overall	1.0523	100.0%

- Required Revenue and Projected Rate Increase:** BSC projected a required revenue level by plan and an implied rate for each plan. This resulted in rate increases ranging from 6.9% to 56.5% on various plans. BSC capped the rate increases to no more than 28.6% and reallocated the required revenue by plan, keeping the overall revenue constant to determine the final rate increases by plan. This raised the lowest rate increase to 15.8% and maintained the overall rate increase at 18.8%. Table 8 presents the final projected average PMPM rates for each plan, their anticipated pricing loss ratio and the derived and final rate increases for each.

Table 8 Analysis of Projected New Rates by Plan

Plan	Projected Average PMPM Rate	Anticipated Pricing Loss Ratio	Initial Rate Increase	Final Rate Increase
Active Start 25	\$268.30	63.7%	6.5%	15.1%
Active Start 25 GenRx	\$233.14	63.7%	6.9%	14.9%
Active Start 35	\$258.06	67.8%	16.9%	18.9%
Active Start 35 GenRx	\$202.42	70.2%	28.9%	23.0%
Balance 1000	\$222.09	69.1%	22.8%	20.3%
Balance 1700	\$275.29	67.2%	12.2%	16.3%
Balance 2500	\$222.93	66.6%	16.1%	18.1%
PPO 1500 (DOI)	\$522.45	65.6%	13.8%	15.9%
PPO2000 (DOI)	\$349.02	92.1%	14.1%	16.0%
Essential 1750	\$265.02	86.8%	56.6%	28.6%
Essential 3000	\$229.75	68.0%	19.7%	19.6%
Essential 4500	\$222.88	63.6%	9.5%	15.8%
PPO 5000	\$263.33	67.9%	13.9%	16.6%
PPO Savings 1800	\$221.87	63.8%	11.3%	17.3%
PPO Savings 4000	\$215.75	63.8%	10.4%	16.3%
PSP 3500	\$213.82	68.4%	21.9%	21.0%

PSP 5200	\$244.57	69.4%	21.3%	21.9%
Vital Shield 900	\$121.78	66.8%	38.7%	24.6%
Vital Shield 2900	4136.96	70.4%	38.9%	24.4%
Vital Shield Plus 400	\$175.09	68.5%	25.8%	22.8%
Vital Shield Plus 900	\$152.81	68.9%	26.0%	23.3%
Vital Shield Plus 2900	\$160.59	65.4%	26.2%	22.2%
Vital Shield Plus Gen Rx400	\$138.03	60.9%	25.8%	22.3%
Vital Shield Plus Gen Rx 900	\$126.03	61.5%	25.9%	22.8%
Vital Shield Plus Gen Rx 2900	\$120.92	60.2%	25.9%	21.9%
All Plans	\$225.89	67.0%	18.8%	18.8%

Analysis of Lifetime Loss Ratio Calculations

As mentioned earlier, BSC developed a 25 year projection of experience to calculate the lifetime loss ratio for each of the plans and in total. We have reviewed each of the key components in this calculation to assess whether or not we believe it realistically projects the anticipated lifetime loss ratio. Our comments are presented by component.

- Discount Rate:** BSC has used a 2.11% discount rate for these calculations, based upon the “Daily Treasury Real Long-Term Rate” from the US Department of Treasury as of 2/25/2010. We would expect a discount rate in the range of 2% - 6%. The BSC assumption is at the low end of that range. Changing the assumption to 4% (i.e., the midpoint of that range) increases the future loss ratio by a small amount, but has no meaningful impact to the overall loss ratio. We accept the BSC assumption.
- Historical Premium and Claim Matching:** Since the rate development process is somewhat independent of the lifetime loss ratio calculation it is critical that these processes are internally consistent. We checked both premiums and claims to be sure the projections were reasonable and were also based upon information consistent with the premium development process. We completed this process by plan and in the aggregate to be sure calculations were reasonable.

Table 9 Analysis of Premium PMPMs by Plan

Plan	Lifetime Loss Ratio Calculations			Independent Information		
	2007	2008	2009	2007	2008	2009
Active Start Plans	\$142	\$157	\$181	\$143	\$158	\$181
Balance Plans	\$156	\$157	\$175	\$156	\$158	\$175

PPO (DOI) Plans	\$171	\$182	\$213	\$172	\$183	\$214
Essential Plans	\$144	\$154	\$171	\$144	\$155	\$171
PPO 5000	\$155	\$167	\$188	\$164	\$179	\$207
PSP Plans			\$208	\$142	\$155	\$177
Vital Shield Plans	\$75	\$87	\$102	\$75	\$88	\$102
Overall	\$150	\$156	\$167	\$150	\$157	\$167

Other than some minor differences in how experience was grouped for the PPO 5000 and PSP plans there were no inconsistencies. The overall PMPMs matched and as a result we believe the revenue calculations to be consistent.

Table 10 Analysis of Claims PMPMs by Plan

Plan	Lifetime Loss Ratio Calculations			Independent Information		
	2007	2008	2009	2007	2008	2009
Active Start Plans	\$111	\$114	\$123	\$106	\$111	\$114
Balance Plans	\$101	\$110	\$121	\$96	\$106	\$117
PPO (DOI) Plans	\$145	\$207	\$183	\$139	\$202	\$178
Essential Plans	\$110	\$125	\$132	\$105	\$122	\$128
PPO 5000	\$110	\$114	\$133	\$110	\$130	\$143
PSP Plans			\$105	\$72	\$88	\$115
Vital Shield Plans	\$35	\$52	\$65	\$32	\$49	\$62
Overall	\$104	\$111	\$118	\$99	\$107	\$112

At initial look there are some discrepancies with the claims, however when adjusting for medical management expenses, pooling, and credibility adjustments, they are very consistent and are reasonable.

- **Membership Projections and Lapse Rate Assumptions:** One of the key assumptions in the lifetime loss ratio calculations is the membership projection reflecting anticipated lapse rates. BSC provided estimated sales by plan and overall lapse rates to project future membership by plan. The same lapse rates were used on all plans. Membership was provided by duration and by plan to project the future membership by plan for the lifetime loss ratio calculations. The lapse rates were reasonable and were based upon BSC experience.
- **Projected PMPM Premium and Claims:** BSC projected both premium and claims for future time periods. The premiums were projected based upon the proposed rate increases as they impacted the policies by renewal month and then were increased at a rate consistent with underlying trend

assumptions approximating 18% per year. The claims projection included the impact of inflation in addition to aging and the wear-off of selection (i.e., the duration factor). BSC calculated durational adjustments by plan based upon selection factors and projected members by year by duration. The assumed impact of duration above and beyond inflation wore off by 2018.

In other rate filings, specifically Anthem's filing, the Department had encouraged Anthem to use an assumption of 8% or 10% for the out years of the projection. We modeled this for the BSC projections using a 10% assumption and this had the impact of lowering the overall lifetime loss ratio by 3 percentage points (i.e., 81.6% vs. 78.7%). We kept the durational impact in the claims projection. The table on the next page shows this calculation for the overall policies. The orange highlighted area shows the alternative increases that were applied.

This durational impact (i.e., where claims are projected at a higher near term rate than premiums) is how the pricing loss ratio increases over time to produce a lifetime loss ratio that meets the 70% requirement even though the pricing loss ratio is less than 70%. This implies that BSC plans to increase future rates at a rate less than the increases in claims costs. This is consistent with saying that BSC has "prefunded" some of the future rate increases. In situations such as this some carriers choose to establish an active life reserve to in effect retain some of the earnings associated with these plans to a later day when needed to fund subsequent claims. We do not believe that BSC has established such reserves. As a result it will be critical to be sure that future rate increases are closely monitored to be sure that the lifetime loss ratio is maintained within projected ranges.

BSC projection of lifetime loss ratio is not consistent with their practice to not establish active life reserves. As a result their calculations do not accurately reflect what will likely happen on this business. There are two alternatives here: establish active life reserves or modify projections and rate levels to reflect an alternate rating strategy.

Blue Shield of California Life & Health Insurance Company.															
OVERALL															
Discount Rate		2.11%													
Year	Member Months	Revenue			Cost of Health Care			Loss Ratio			DISCOUNTED				
		Revenue	Cost of Health Care	Loss Ratio	Revenue	Cost of Health Care	Loss Ratio	Revenue	Trend	Cost of Health Care	Trend	Loss Ratio	Revenue	Cost of Health Care	Loss Ratio
2004	244,195	\$24,300,850	\$14,031,547	57.7%	\$28,975,087	\$15,575,677	57.7%	\$ 100		\$ 57		57.7%	\$110.47	\$63.78	57.7%
2005	707,327	\$82,455,091	\$55,880,455	67.8%	\$89,637,674	\$60,748,147	67.8%	\$ 117	117.1%	\$ 79	137.5%	67.8%	\$126.73	\$85.88	67.8%
2006	1,049,270	\$132,893,759	\$84,086,804	63.3%	\$141,484,679	\$89,522,597	63.3%	\$ 127	108.6%	\$ 80	101.4%	63.3%	\$134.84	\$85.32	63.3%
2007	1,508,210	\$225,972,188	\$157,166,465	69.6%	\$235,608,819	\$163,868,861	69.6%	\$ 150	118.3%	\$ 104	130.0%	69.6%	\$156.22	\$108.65	69.6%
2008	1,940,662	\$302,040,266	\$215,050,426	71.2%	\$308,413,316	\$219,587,990	71.2%	\$ 156	103.9%	\$ 111	106.3%	71.2%	\$158.92	\$113.15	71.2%
2009	2,532,261	\$421,942,893	\$293,058,510	69.5%	\$421,942,893	\$293,058,510	69.5%	\$ 167	107.1%	\$ 116	104.4%	69.5%	\$166.63	\$115.73	69.5%
2010	3,060,415	\$565,115,745	\$380,226,307	67.3%	\$553,438,199	\$372,369,314	67.3%	\$ 185	110.8%	\$ 124	107.4%	67.3%	\$180.84	\$121.67	67.3%
2011	2,740,629	\$620,329,964	\$422,648,557	68.1%	\$594,957,861	\$405,361,817	68.1%	\$ 226	122.6%	\$ 154	124.1%	68.1%	\$217.09	\$147.91	68.1%
2012	2,131,704	\$577,096,425	\$414,973,305	71.9%	\$542,055,251	\$389,776,212	71.9%	\$ 271	119.6%	\$ 195	126.2%	71.9%	\$254.28	\$182.85	71.9%
2013	1,732,954	\$555,872,922	\$417,186,089	75.1%	\$511,331,343	\$383,757,357	75.1%	\$ 321	118.5%	\$ 241	123.7%	75.1%	\$295.06	\$221.45	75.1%
2014	1,445,142	\$548,561,557	\$426,741,370	77.8%	\$494,178,661	\$384,435,395	77.8%	\$ 380	118.3%	\$ 295	122.7%	77.8%	\$341.96	\$266.02	77.8%
2015	1,226,493	\$550,477,152	\$440,261,117	80.0%	\$485,656,986	\$388,419,186	80.0%	\$ 449	118.2%	\$ 359	121.6%	80.0%	\$395.97	\$316.69	80.0%
2016	1,054,611	\$559,290,319	\$456,722,110	81.7%	\$483,236,098	\$384,615,466	81.7%	\$ 530	118.2%	\$ 433	120.6%	81.7%	\$458.21	\$374.18	81.7%
2017	915,615	\$573,462,999	\$476,294,051	83.1%	\$485,242,903	\$403,022,180	83.1%	\$ 626	118.1%	\$ 520	120.1%	83.1%	\$529.96	\$440.17	83.1%
2018	800,968	\$592,192,015	\$500,232,036	84.5%	\$490,736,161	\$414,531,002	84.5%	\$ 739	118.0%	\$ 625	120.1%	84.5%	\$612.68	\$517.54	84.5%
2019	705,178	\$615,140,777	\$526,004,205	85.5%	\$499,219,746	\$426,880,635	85.5%	\$ 872	118.0%	\$ 746	119.4%	85.5%	\$707.93	\$605.35	85.5%
2020	624,273	\$642,109,749	\$551,163,467	85.8%	\$510,338,374	\$438,055,750	85.8%	\$ 1,029	117.9%	\$ 883	118.4%	85.8%	\$817.49	\$701.70	85.8%
2021	554,635	\$672,358,595	\$577,920,372	86.0%	\$523,337,248	\$449,830,283	86.0%	\$ 1,212	117.9%	\$ 1,042	118.0%	86.0%	\$943.57	\$811.04	86.0%
2022	493,186	\$704,574,325	\$605,533,431	85.9%	\$537,080,300	\$461,583,775	85.9%	\$ 1,429	117.8%	\$ 1,228	117.8%	85.9%	\$1,089.00	\$935.92	85.9%
2023	438,545	\$738,354,945	\$634,483,669	85.9%	\$551,199,470	\$473,657,678	85.9%	\$ 1,684	117.9%	\$ 1,447	117.6%	85.9%	\$1,256.88	\$1,080.07	85.9%
2024	389,957	\$783,774,599	\$684,836,402	85.9%	\$565,705,402	\$486,805,025	85.9%	\$ 1,984	117.9%	\$ 1,705	117.8%	85.9%	\$1,450.69	\$1,246.45	85.9%
2025	346,753	\$810,916,650	\$696,661,166	85.9%	\$590,609,407	\$498,803,145	85.9%	\$ 2,339	117.9%	\$ 2,009	117.8%	85.9%	\$1,674.42	\$1,438.50	85.9%
2026	308,335	\$849,864,872	\$730,029,455	85.9%	\$595,921,677	\$511,893,586	85.9%	\$ 2,756	117.9%	\$ 2,368	117.8%	85.9%	\$1,932.71	\$1,660.18	85.9%
2027	274,174	\$890,708,145	\$765,017,319	85.9%	\$611,654,890	\$525,342,209	85.9%	\$ 3,249	117.9%	\$ 2,790	117.8%	85.9%	\$2,230.90	\$1,916.09	85.9%
2028	243,798	\$933,539,774	\$801,704,329	85.9%	\$627,820,624	\$539,159,151	85.9%	\$ 3,829	117.9%	\$ 3,288	117.9%	85.9%	\$2,575.17	\$2,211.50	85.9%
2029	216,787	\$978,457,706	\$840,174,008	85.9%	\$644,431,164	\$553,354,847	85.9%	\$ 4,513	117.9%	\$ 3,876	117.9%	85.9%	\$2,972.65	\$2,552.53	85.9%
2030	192,769	\$1,025,564,767	\$880,514,034	85.9%	\$661,499,153	\$567,940,033	85.9%	\$ 5,320	117.9%	\$ 4,568	117.9%	85.9%	\$3,431.57	\$2,946.23	85.9%
2031	171,411	\$1,074,968,903	\$922,816,442	85.8%	\$679,037,603	\$582,925,760	85.8%	\$ 6,271	117.9%	\$ 5,384	117.9%	85.8%	\$3,961.45	\$3,400.74	85.8%
2032	152,420	\$1,126,783,441	\$967,177,847	85.8%	\$697,059,906	\$598,323,400	85.8%	\$ 7,393	117.9%	\$ 6,345	117.9%	85.8%	\$4,573.28	\$3,925.49	85.8%
2033	135,533	\$1,181,127,360	\$1,013,699,673	85.8%	\$715,579,847	\$614,144,657	85.8%	\$ 8,715	117.9%	\$ 7,479	117.9%	85.8%	\$5,279.74	\$4,531.32	85.8%
2034	120,517	\$1,238,125,573	\$1,062,488,395	85.8%	\$734,611,612	\$630,401,576	85.8%	\$ 10,273	117.9%	\$ 8,816	117.9%	85.8%	\$6,095.49	\$5,230.80	85.8%
Historical	7,981,925	\$1,189,605,047	\$819,274,207	68.9%	\$1,224,062,468	\$842,361,784	68.8%	\$ 149		\$ 103		68.9%	\$153.35	\$105.53	68.8%
Projected	20,476,803	\$19,398,768,379	\$16,175,509,397	83.4%	\$14,375,939,527	\$11,894,645,447	82.7%	\$ 947		\$ 790		83.4%	\$702.06	\$580.88	82.7%
Lifetime	28,458,728	\$20,588,373,426	\$16,994,783,604	82.5%	\$15,600,001,995	\$12,737,007,231	81.6%	\$ 723	110.0%	\$ 597		82.5%	\$548.16	\$447.56	81.6%
2010	3,060,415	\$ 565,115,745	\$ 380,226,307	67.3%	\$ 553,438,199	\$ 372,369,314	67.3%	\$ 185	110.8%	\$ 124	107.4%	67.3%	\$ 181	\$ 122	67.3%
2011	2,740,629	\$ 620,329,964	\$ 422,648,557	68.1%	\$ 594,957,861	\$ 405,361,817	68.1%	\$ 226	122.6%	\$ 154	124.1%	68.1%	\$ 217	\$ 148	68.1%
2012	2,131,704	\$ 577,096,425	\$ 414,973,305	71.9%	\$ 542,055,251	\$ 389,776,212	71.9%	\$ 271	110.0%	\$ 195	116.1%	71.9%	\$ 254	\$ 183	71.9%
2013	1,732,954	\$ 516,081,236	\$ 387,307,171	75.1%	\$ 474,709,730	\$ 356,272,608	75.1%	\$ 298	110.0%	\$ 223	114.8%	75.1%	\$ 274	\$ 206	75.1%
2014	1,445,142	\$ 473,387,946	\$ 368,261,717	77.8%	\$ 426,457,657	\$ 331,753,258	77.8%	\$ 328	110.0%	\$ 255	114.0%	77.8%	\$ 295	\$ 230	77.8%
2015	1,226,493	\$ 441,941,242	\$ 353,456,168	80.0%	\$ 389,901,472	\$ 311,835,753	80.0%	\$ 360	110.0%	\$ 289	113.1%	80.0%	\$ 318	\$ 254	80.0%
2016	1,054,611	\$ 418,007,954	\$ 341,349,507	81.7%	\$ 361,165,795	\$ 294,931,627	81.7%	\$ 396	110.0%	\$ 324	112.3%	81.7%	\$ 342	\$ 280	81.7%
2017	915,615	\$ 399,206,812	\$ 331,564,251	83.1%	\$ 337,793,846	\$ 280,557,245	83.1%	\$ 436	110.0%	\$ 362	111.9%	83.1%	\$ 369	\$ 306	83.1%
2018	800,968	\$ 384,142,602	\$ 324,490,083	84.5%	\$ 318,330,307	\$ 268,897,610	84.5%	\$ 480	110.0%	\$ 405	111.4%	84.5%	\$ 397	\$ 336	84.5%
2019	705,178	\$ 372,022,372	\$ 318,114,713	85.5%	\$ 301,916,115	\$ 258,167,158	85.5%	\$ 528	110.0%	\$ 451	111.4%	85.5%	\$ 428	\$ 366	85.5%
2020	624,273	\$ 362,274,524	\$ 310,963,169	85.8%	\$ 287,929,893	\$ 247,148,464	85.8%	\$ 580	110.0%	\$ 498	110.4%	85.8%	\$ 461	\$ 396	85.8%
2021	554,635	\$ 354,048,729	\$ 304,319,710	86.0%	\$ 275,577,480	\$ 236,870,386	86.0%	\$ 638	110.0%	\$ 549	110.2%	86.0%	\$ 497	\$ 427	86.0%
2022	493,186	\$ 346,305,119	\$ 297,625,558	85.9%	\$ 263,980,180	\$ 226,872,905	85.9%	\$ 702	110.0%	\$ 603	110.0%	85.9%	\$ 535	\$ 460	85.9%
2023	438,545	\$ 338,730,874	\$ 291,078,798	85.9%	\$ 252,870,936	\$ 217,297,488	85.9%	\$ 772	110.0%	\$ 664	110.0%	85.9%	\$ 577	\$ 495	85.9%
2024	389,957	\$ 331,322,290	\$ 284,676,183	85.9%	\$ 242,229,209	\$ 208,126,313	85.9%	\$ 850	110.0%	\$ 730	110.0%	85.9%	\$ 621	\$ 534	85.9%
2025	346,753	\$ 324,075,743	\$ 278,414,538	85.9%	\$ 232,035,325	\$ 193,342,312	85.9%	\$ 935	110.0%	\$ 803	110.0%	85.9%	\$ 689	\$ 575	85.9%
2026	308,335	\$ 316,987,690	\$ 272,290,758	85.9%	\$ 222,270,436	\$ 190,929,136	85.9%	\$ 1,028	110.0%	\$ 883	110.0%	85.9%	\$ 721	\$ 619	85.9%
2027	274,174	\$ 310,054,664	\$ 266,301,806	85.9%	\$ 212,916,489	\$ 182,871,127	85.9%	\$ 1,131	110.0%	\$ 971	110.0%	85.9%	\$ 777	\$ 667	85.9%
2028	243,798	\$ 303,273,274	\$ 260,444,711	85.9%	\$ 203,956,191	\$ 175,153,288	85.9%	\$ 1,244	110.0%	\$ 1,068	110.0%	85.9%	\$ 837	\$ 718	85.9%
2029	216,787	\$ 296,640,204	\$ 254,716,568	85.9%	\$ 195,372,974	\$ 167,761,257	85.9%	\$ 1,368	110.0%	\$ 1,175	110.0%	85.9%	\$ 901	\$ 774	85.9%
2030	192,769	\$ 290,152,210	\$ 249,114,538	85.9%	\$ 187,150,970	\$ 160,681,276	85.9%	\$ 1,505	110.0%	\$ 1,292	110.0%	85.9%	\$ 971	\$ 834	85.9%
2031	171,411	\$ 283,806,119	\$ 243,635,841	85.8%	\$ 179,274,978	\$ 153,900,171	85.8%	\$ 1,656	110.0%	\$ 1,421	110.0%	85.8%	\$ 1,046	\$ 898	85.8%
2032	152,420	\$ 277,598,826	\$ 238,277,761	85.8%	\$ 171,730,436	\$ 147,405,320	85.8%	\$ 1,821	110.0%	\$ 1,563	110.0%	85.8%	\$ 1,127	\$ 967	85.8%
2033	135,533	\$ 271,527,298	\$ 233,037,640	85.8%	\$ 164,503,396	\$ 141,184,638	85.8%	\$ 2,003	110.0%	\$ 1,719	110.0%	85.8%	\$ 1,214	\$ 1,042	85.8%

Table 11 presents the impact on lifetime loss ratios when using the lower trend assumption for both premium and claims. Even on the revised basis all plan grouping show a lifetime loss ratio in excess of 70%.

Table 11 Analysis of Lifetime Loss Ratios by Plan

Plan	Initial	Revised
Active Start Plans	82.5%	79.9%
Balance Plans	83.7%	80.8%
PPO (DOI) Plans	84.6%	83.1%
Essential Plans	101.7%	95.5%
PPO 5000	78.4%	75.8%
PSP Plans	83.7%	81.3%
Vital Shield Plans	77.2%	73.2%
Overall	81.6%	78.7%

Sensitivity Analysis

We have reviewed and analyzed each of the key BSC assumptions used to project the lifetime loss ratios to assess how reasonable these assumptions were and their effect on the projected lifetime loss ratio. As part of this analysis we have compared their assumptions to our best estimate and our range of acceptable assumptions.

Table 12 Categories of Alternate Assumptions

Alternate Assumption	Description
Underlying Claims Trend	<p>The underlying health care claims trend including both utilization and unit cost trends. This assumption is prior to plan specific adjustments (e.g., deductible leveraging). Other factors such as aging, wearing off of underwriting, durational factors, etc. all apply to the projected claims after the underlying claims trend is applied.</p> <p>The assumptions for this are:</p> <ul style="list-style-type: none"> ○ BSC: 12.4% ○ AHP: 13.5% ○ "low": 12.0% ○ "high": 15.0%
Claim Selection Curve	<p>BSC has used a common selection curve for their products ranging from an average of .72 in the first year following issue to about 1.30 at 10 years and beyond. We have compared this to:</p> <ul style="list-style-type: none"> • AHP best estimate: .70 ranging

	<ul style="list-style-type: none"> to 1.30 • “low” (i.e., steeper): .60 ranging to 1.40 • “high” (i.e., flatter): .80 ranging to 1.20
Lapse rate assumptions	<p>Lapse rates define how quickly policyholders terminate policies by policy duration. BSC has conducted lapse studies to estimate their lapses by policy duration and have used the results of these studies to develop their assumptions. We have used this information to define alternate lapse rates for our assumption testing. The assumptions for this are:</p> <ul style="list-style-type: none"> ○ BSC: standard lapse rates ○ AHP: standard lapse rates ○ “low”: 90% of BSC ○ “high”: 110% of BSC
Length of Projection Period in Lifetime Loss Ratio Calculations	<p>BSC used a 25 year projection period. We recommend a minimum of 15 - 20 years. We have compared the results to:</p> <ul style="list-style-type: none"> • BSC: 25 years • AHP: 15 years • “low”: 10 years • “high”: 25 years

Impact of Trend Sensitivity: All of the lifetime loss ratios calculated by BSC exceeded 70%. Since BSC trend rates were at the low end of our range of reasonable assumptions, including higher rates results in higher lifetime loss ratios. Table 13 presents lifetime loss ratios for alternate assumptions for each of the major plan groupings. In all cases the lifetime loss ratios increase for higher trend assumptions.

Table 13 Alternate Trend Assumption Lifetime Loss Ratios by Plan

Plan	BSC	10%*	12%	13.5%	15%
Active Start Plans	82.5%	79.9%	80.9%	82.8%	84.8%
Balance Plans	83.7%	80.8%	80.3%	82.2%	84.2%
PPO (DOI) Plans	84.6%	83.1%	73.7%	73.9%	74.2%
Essential Plans	101.7%	95.5%	101.6%	103.8%	106.2%
PPO 5000	78.4%	75.8%	77.6%	79.5%	81.6%
PSP Plans	83.7%	81.3%	80.3%	82.0%	84.0%
Vital Shield Plans	77.2%	73.2%	71.6%	73.2%	75.0%
Overall	81.6%	78.7%	78.8%	80.7%	82.7%

*refers to reducing both rate increases and claims cost increases to 10% after rate increase year

Impact of Alternate Selection Curve: We compared alternative selection curves to the lifetime loss ratios based upon holding the rate increases at 10% after the initial rate increase filed for in this rate filing. The current assumptions used by BSC are very close to and nearly equivalent to our best estimate assumptions. Steeper assumptions (i.e., the .6 to 1.) raise the loss ratios and the flatter assumptions (i.e., .8 to 1.20) lower the life time loss ratios. The flatter scenario results in lifetime loss ratios on several plan combinations that fail to meet the 70% requirements.

Table 14 Alternate Selection Curve Assumption Lifetime Loss Ratios by Plan

Plan	BSC	10%	70 to 1.30	.60 to 1.40	.80 to 1.20
Active Start Plans	82.5%	79.9%	78.8%	93.4%	69.0%
Balance Plans	83.7%	80.8%	78.8%	97.7%	66.1%
PPO (DOI) Plans	84.6%	83.1%	76.8%	77.3%	76.4%
Essential Plans	101.7%	95.5%	93.7%	111.5%	81.7%
PPO 5000	78.4%	75.8%	73.9%	89.5%	63.4%
PSP Plans	83.7%	81.3%	78.5%	98.8%	64.8%
Vital Shield Plans	77.2%	73.2%	71.1%	88.3%	59.5%
Overall	81.6%	78.7%	76.3%	93.3%	64.8%

Impact of Alternate Lapse Rates: We compared alternative selection lapse rates on the projected lifetime loss ratios. There was a minor impact and none of the plans had lifetime loss ratios dropping below 70%.

Table 15 Alternate Lapse Rate Assumption Lifetime Loss Ratios by Plan

Plan	BSC	10%	BSC - 10%	BSC + 10%
Active Start Plans	84.5%	79.9%	80.7%	79.2%
Balance Plans	83.7%	80.8%	81.5%	80.0%
PPO (DOI) Plans	84.6%	83.1%	80.4%	80.5%
Essential Plans	101.7%	95.5%	98.3%	92.3%
PPO 5000	78.4%	75.8%	76.4%	75.2%
PSP Plans	83.7%	81.3%	81.8%	80.7%
Vital Shield Plans	77.2%	73.2%	74.3%	72.0%
Overall	81.6%	78.7%	79.4%	77.9%

Impact of Length of Projection Period: As mentioned BSC used a 25 year projection period. We tested the impact of calculations using shorter projection periods of 10, 15 and 20 years. In light of the uncertain economy, the challenges faced by actuaries in setting assumptions even one or two years into the future, and the ability of carriers to adjust rates annually, we wanted to measure the

impact of projection period length on the calculation of lifetime loss ratios. Table 16 presents the results.

Table 16 Impact of Alternate Projection Period on Lifetime Loss Ratios

Plan	BSC (25 yr)	10 yr	15 yr	20 yr
Active Start Plans	82.5%	77.0%	81.7%	83.5%
Balance Plans	83.7%	77.1%	81.5%	83.3%
PPO (DOI) Plans	84.6%	81.8%	83.3%	84.6%
Essential Plans	101.7%	89.3%	101.7%	105.1%
PPO 5000	78.4%	73.4%	78.6%	79.5%
PSP Plans	83.7%	78.4%	81.6%	83.1%
Vital Shield Plans	77.2%	68.1%	73.2%	75.9%
Overall	81.6%	75.5%	80.1%	81.7%

With the exception of the 10 year projection for Vital Shield plans, this did not result in any plan grouping having a lifetime loss ratio below 70%.

The conclusion of the sensitivity analysis is that there are two areas that are most sensitive to underlying BSC actuarial assumptions: the selection curve and the length of the projection period. If BSC underwriting process is less effective than assumed or hoped for, there may be a need to moderate future rates increases. However, in our opinion, none of these issues create any serious concerns.

Summary

In summary, we find the BSC rate filing and related analysis to be quite complete and easy to follow. The current rates proposed by BSC are based upon the assumption that future rate increases will not be as great as future increases in costs. This assumption is required to meet the 70% lifetime loss ratio requirement. Since there are no active life reserves established, this assumption is inconsistent.

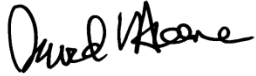
Either the Department should require the establishment of active life reserves or BSC should modify their filing to show a more reasonable projected rate increase. This adjustment would reduce the current rates by several percentage points, although may have the effect of higher trend increases in future years.

We appreciate the cooperation of both the department and BSC staff who responded quickly to our requests for more information. Other than the issues discussed above, this was the most thoroughly completed rate filing we have reviewed on behalf of the Department.

Adam M. Cole
August 25, 2010
Page 23 of 23

If you have any questions, please don't hesitate to call

Sincerely,



David V. Axene, FSA, CERA, FCA, MAAA
President & Consulting Actuary

cc: Perry Kupferman, FSA, MAAA, DOI
John Fritz, FSA, MAAA, AHP
Josh Axene, AHP