FALL 2010

EXAM DP-GH

Design and Pricing
GROUP & HEALTH

CASE STUDY

DP-GH morning

COURSE: GROUP HEALTH – DESIGN AND PRICING

CASE STUDY

I. INTRODUCTION

This case study starts with general information followed by internal and external correspondences which includes more specific information.

All numbers found in this case study are for illustration only and may not be representative of true costs or actual relationships. Any similarities with actual company results are purely coincidental.

II. A TALE OF TWO COMPANIES

Great Expectations Insurance Company

Great Expectations Insurance Company (Great Expectations) is a large insurance company operating exclusively in the United States. The company's corporate vision is to be a leader in the insurance industry, to earn a competitive return for its stockholders, to offer a good value to its policy holders while operating in a financially sustainable way, and to attract and retain valuable employees.

Great Expectations has several divisions including a managed care organization, Barnaby Rudge Inc. (BRI), operating in a single location.

Great Expectations currently offers a full line of products, including but not limited to:

- Indemnity and preferred provider organization (PPO) group medical benefits, including high-deductible health plans (HDHPs)
- Group life,
- Group long-term-disability, and
- Specialty products.

Great Expectations has 5,000 employees supporting four primary business divisions:

- Administrative Services Only (ASO),
- Medical Division (including all Indemnity, PPO, and Managed Care areas),
- Group Life and Disability (GLD), and
- Ancillary Products.

Great Expectations has a strong reputation in the self-insured and fully insured group major medical market. The company has spent considerable resources in developing its own preferred provider networks across the country. As a result, Great Expectations is strongly positioned nationally as a provider of ASO and fully insured group insurance products.

Copperfield Insurance Company

Copperfield Insurance Company (Copperfield) is a large insurance company operating exclusively in Canada. Its corporate vision is the same as Great Expectations: to be a leader in the insurance industry, to earn a competitive return for its stockholders, to offer a good value to its policy holders while operating in a financially sustainable way, and to attract and retain valuable employees.

Copperfield's primary product offerings include:

- Supplemental medical benefits,
- Group life,
- Disability insurance, and
- Ancillary products, including dental and vision.

Copperfield employs 2,000 people throughout Canada.

Copperfield also has a strong reputation in their markets. However, it is interested in growing into other markets and possibly internationally.

III. PROSPECTIVE CLIENT

Dombey and Sons, Inc. (Dombey) is a firm specializing in the wholesale and retail of manufactured products. They currently operate exclusively in the United States but want to expand into Canada. They employ approximately 1,000 union employees and 500 non-union employees. Their consultant has approached Great Expectations about providing a number of employee benefit plans, including medical, group life, and long-term disability.

Dombey currently offers its union employees a choice of two medical plans on a two-tier basis. The majority of the employees are enrolled in a $250 deductible, 80%/60% coinsurance PPO plan. They offer their non-union employees only one medical plan - a high deductible health plan with a health savings account. Dombey provides all employees life insurance coverage of one times salary at no cost to the employee. Employees may elect to "buy-up" to a coverage level of 1.5, 2.0, 2.5, or 3.0 times salary. Dombey self-insures its short-term disability program and fully-insures its long-term disability program. The LTD program has a three-month elimination period that corresponds to the maximum possible duration of the STD program.

Email 1

From: Charles Dickens <cdickens@greatexp.com>
To: You
Sent: March 3, 2010
Subject: Welcome Aboard

Hello. I hope you have enjoyed your initial few days here.

While I know you are busy with your day-to-day work, there are two major initiatives with which I need you to take a lead role.

First, as you know, we currently offer only group insurance. Due to market pressures and the recent political activity, the Board and I are very keen on expanding into all lines of individual insurance. However, we have little experience in the individual market place. We would like you to lead a group of senior executives to explore this expansion. In particular, we'd like your team's review to include (but not be limited to) how our current expertise in group products may overlap with the individual marketplace, potential marketing approaches, and any financial concerns about this initiative.

Second, and possibly more significantly, I have been approached by the CEO of Copperfield Insurance Company, located in Canada, for a possible merger. They are interested in expanding into the U.S. and we could gain from their product expertise.

As you can imagine, this potential merger is highly confidential. You will be joining me as Great Expectations' representatives through the due diligence and, if necessary, negotiations of this possible merger. I have attached Copperfield's financial information for your review.

Again, welcome aboard. This is certainly an exciting time to be at Great Expectations.

- Charles

Table 1

Copperfield Insurance Company
2009 Annual Report

Consolidated Statement of Operations

(In millions, except per share data)	December 31 2009	2008	2007
Revenues			
Premium Income			
Supplemental Medical	$ 4,023	$ 3,784	$ 3,129
Group Life	5,888	6,071	6,211
Disability	2,572	3,420	5,280
Ancillary Products	1,234	967	957
Total	$ 13,717	$ 14,242	$ 15,577
Fee Income	2,553	3,118	3,011
Other revenue	-	-	-
Total operating revenue	16,270	17,360	18,588
Net investment income	3,178	5,348	5,707
Other realized (losses) gains	-	-	-
Total non-operating revenue	3,178	5,348	5,707
Total revenues	**$ 19,448**	**$ 22,708**	**$ 24,295**
Policy Benefits and Expenses			
Payments to Policyholders			
Supplemental Medical	$ 3,359	$ 3,123	$ 2,583
Group Life	3,592	3,946	3,913
Disability	1,517	2,120	3,326
Ancillary Products	963	725	794
Total	$ 9,431	$ 9,915	$ 10,617
Commissions	1,941	2,233	2,671
Operating Expenses	4,084	4,315	4,859
Premium Taxes	274	285	312
Interest expense	350	323	345
Amortization of other intangible assets	265	274	260
Total expenses	**$ 16,345**	**$ 17,344**	**$ 19,063**
Income before income tax expense	3,103	5,364	5,232
Income tax expense	621	1,073	1,046
Net income	**$ 2,482**	**$ 4,291**	**$ 4,185**
Net income per share			
Basic	$ 2.66	$ 4.33	$ 3.73
Diluted	$ 2.70	$ 4.73	$ 3.84
Average Exchange Rates*			
U.S. dollars	0.81	0.83	1.07
U.K. pounds	1.74	1.96	2.15

* e.g., on 12/31/2007, $1 Can = $1.07 US

Table 2

Copperfield Insurance Company
2009 Annual Report

Consolidated Balance Sheet

(In millions, except share data)	December 31 2009		December 31 2008	
Assets				
Current assets:				
Cash and cash equivalents	$	9,880	$	8,770
Premium Receivables		8		8
Investments available-for-sale, at fair value:				
Fixed maturity securities		1,169		1,097
Equity securities		256		242
Other invested assets, current		693		722
Other receivables		827		745
Income taxes receivable		53		54
Net due from subsidiaries		867		1,197
Securities lending collateral		583		854
Deferred tax assets, net		250		248
Other current assets		1		1
Total current assets	$	**14,587**	$	**13,938**
Long-term investments available-for-sale, at fair value:				
Fixed maturity securities		534		234
Equity securities		6		7
Other invested assets, long-term		456		495
Property and equipment, net		4		3
Deferred tax assets, net, non-current		234		227
Investment in subsidiaries		5,544		3,456
Other noncurrent assets		114		37
Total Long Term Assets	$	**6,892**	$	**4,459**
Total assets	**$**	**21,479**	**$**	**18,397**
Liabilities and shareholders equity				
Liabilities				
Actuarial and Policy Liabilities		8,230		7,564
Amounts on deposit		678		876
Deferred Gains		4		5
Long-term debt		345		456
Other Liabilities		795		856
Total liabilities		10,052		9,757
Shareholders equity				
Preferred stock		-		-
Common stock		5		5
Additional paid-in capital		326		109
Retained earnings		1,865		1,777
Accumulated Income		9,231		6,749
Total shareholders equity		11,427		8,640
Total liabilities and shareholders equity	**$**	**21,479**	**$**	**18,397**

Email 2

From:	Mr. Wemmick
To:	Charles Dickens
Sent:	March 8, 2010
Subject:	Claims Experience Table From Rate Filing

Dear Mr. Dickens,

As you requested, I am sending Exhibit 1.a. from our small group rate filing so that you can see how our actual experience (on a normalized basis) has compared to our current rates.

Note that there are special adjustments made that attempt to normalize our experience:

- Wear-off Adjustment: Newer groups tend to have better experience than older groups and this factor normalizes for this expected result.
- Age-Sex Factors: All things being equal, older people are expected to cost more, as are women in the child-bearing years.
- Area: The average cost of services tends to vary area to area.
- Group Size: Because of selection, smaller groups tend to use more benefits than larger groups.
- Large claims fluctuate greatly over time and within products, and thus need to be pooled in order to smooth out the experience. As a result, we remove actual large claims experience and substitute expected experience.

Let me know if you have any questions or need more information.

Regards,
Mr. Wemmick

Email 3

From:	Mr. Wemmick
To:	Charles Dickens
Sent:	March 15, 2010
Subject:	Rate Development for Small Group Medical

Dear Mr. Dickens,

As you requested, I have outlined the key steps used to develop the premium rates charged to a small group customer.

Base Rate Assumptions
Base rates represent manual rates: that is, the rates filed with the state insurance department. For groups with less than 5 lives, base rates are used directly to determine the group's premium. For groups with more than 5 lives, we use a combination of the group's experience and the base rates.

We review the base rates for each market on a quarterly basis to determine if a rate increase is needed. As shown in Exhibit 1.a. that I sent you last week, this review compares our current rates to actual experience on a normalized basis, adjusted for large claims fluctuations. We then trend the experience to the applicable policy period. A little more detail:

- We know that claims vary greatly from group to group based on characteristics of the group: demographics, area, size, etc. As a result, our claims experience does not reflect any specific group. To adjust for that in rating, we normalize the experience to reflect a standard census using factors. Each factor is based on an annual study. The specific factors we adjust for include:
    - Wear-off (Exhibit 1.b.). New groups tend to have better experience than groups with longer duration because of underwriting. This factor normalizes for that.
    - Age-Sex (Exhibit 1.c.). All other things being equal, younger people tend to have lower claims than older people, except perhaps for women in the child-bearing years
    - Area (Exhibit 1.d.). The average cost of services for a specifc market basket of services tends to vary area to area. This factor assumes a market basket approach and does not reflect other factors that may vary by area, such as practice patterns.
    - Group Size. (Exhibit 1.e.). Because of selection, smaller groups tend to use more benefits than larger groups.
- Large claims fluctuate greatly period to period. As a result we remove actual large claims experience and substitute in expected experience. In years when large claims experience has been favorable, this increases rates and conversely reduces rates in years when the experience is unfavorable.
- Trends are based on a "passive renewal" basis. That is, the trends are those used if a customer does not change benefits. The components of this trend include:
    - Core utilization: We have observed over time that utilization of benefits increases or decrease over time due to economic factors such as personal disposable income. This factor represents this general change in utilization and not customer specific factors such as an increase in utilization right before a lay-off.
    - Core unit costs: This represents a market basket approach as described above.
    - Mix and Severity: This represents the fact that services do tend to change over time and there is a tendency to use more intense services such as using MRIs and Cat Scans where an x-ray would do just as well

- The Health Technology Pipeline represents the net impact of new services such as the introduction of a new drug or a new type of surgery. Please note that we increase trends when a technology is introduced but remove the adjustment after the experience reflects the change.
- Regulatory impact. This represents the impact of mandated benefits and other regulatory impacts.
- Policy and procedures – this represents changes we make to control costs. In 2010 we are improving our medical management techniques so that will reduce trend. In 2011, the experience will reflect that change so while overall costs are down, there is no need to further reduce trend.
- Work day adjustments. This reflects the fact that the more work days the more people will go to the doctor and use services.
- Leveraging. If there are no benefit changes, the value of a fixed deductible will decrease so trends will increase.
- Demographics. If there is no major changes in the population, costs will go up because the population is aging.

Customer Data

As discussed above in order to develop a customer specific premium, we need certain information about the group. At the group level, the key factor is the effective date, since that determines the wear-off factor. At the individual level, the key facts are the age-sex, area and claims experience for each member.

Manual Rate

Once we have the customer data, the system calculates the group specific manual rate at shown in Exhibit 3.a. This is just the base rate from Exhibit 1.a. multiplied by group-specific normalizing factors which are calculated as shown in Exhibits 3b. – 3.c.

Final Rates

As the last part of the process, the underwriter calculates the group specific premiums in 2 steps

- The adjusted PMPM is calculated, which is the weighted average of the manual rate and the customer experience adjusted for large claims (Exhibit 4.a.)
- Rates by tier are calculated as shown in Exhibit 4.a.

The rates apply to all employees in the group, including new employees. For example, the rate for a family employee is $xxxx. If a new family employee joins the group, then the customer will be charged $xxxx regardless of the age-sex of that employee.

I hope this answers your questions, if not, then let's set up time to discuss.

Sincerely,

Mr. Wemmick

Exhibit 1.a.
Great Expectations
Base Rate Review for Old London Market
Small Business 2- 50 Lives
Summary

	HMO	POS	PPO	HRA	HSA	Total	Comments
1. **Actual Loss Ratio CY 2009**							
a. Member Months	6,000	120,000	66,000	36,000	12,000	240,000	Actual Experience
b. Average Members	500	10,000	5,500	3,000	1,000	20,000	1.a./12
c. Incurred PMPM	$ 250.00	$ 275.00	$ 280.00	$ 217.00	$ 205.00	$ 263.55	Actual Experience
d. Revenue PMPM	$ 300.00	$ 375.00	$ 327.16	$ 320.00	$ 355.93	$ 350.77	Actual Experience
e. **Loss Ratio**	**83.3%**	**73.3%**	**85.6%**	**67.8%**	**57.6%**	**75.1%**	1.c./1.d.
2. **Adjusted Experience**							
a. Experience PMPM	$ 250.00	$ 275.00	$ 280.00	$ 217.00	$ 205.00	$ 263.55	1.c.
b. Actual Catastrophic Claims	$ (33.00)	$ (24.00)	$ (35.00)	$ (10.00)	$ (5.00)	$ (24.20)	Claims > $200,000 excluded
c. Expected Catastrophic Claims	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	Expected Claims > $200,000
d. Sub-total	$ 237.00	$ 271.00	$ 265.00	$ 227.00	$ 220.00	$ 259.35	2.a. + 2.b. + 2.c.
e. Wear-off Adjustment	98.3%	97.8%	97.9%	97.3%	97.2%	97.8%	See Exhibit 2.
f. Sub-total: Adjusted PMPM	$ 241.17	$ 277.01	$ 270.56	$ 233.20	$ 226.40	$ 265.24	2.d./2.e.
g. Pricing Trend Factor	122.7%	122.7%	122.7%	122.7%	122.7%	122.7%	See Exhibit 3
h. Projected Claims 1/1/11 Effective Date	$ 295.85	$ 339.81	$ 331.90	$ 286.07	$ 277.73	$ 325.37	2.f. x 2.g.
i. Target Loss Ratio	78.0%	78.0%	78.0%	78.0%	78.0%	78.0%	Pricing Assumption
j. **Needed Revenue for 1/1/2011 Effective Date**	**$ 379.29**	**$ 435.66**	**$ 425.51**	**$ 366.76**	**$ 356.06**	**$ 417.14**	2.h./2.i.
3. **Current Manual Rate**							
a. Current Medical Base Rate	$ 225.00	$ 285.00	$ 270.00	$ 240.00	$ 235.00	$ 270.13	Based on current portfolio
b. Current Pharmacy Base Rate	$ 55.00	$ 55.00	$ 55.00	$ 55.00	$ 55.00	$ 55.00	Based on current portfolio
c. Sub-total: Current Base Rate	$ 280.00	$ 340.00	$ 325.00	$ 295.00	$ 290.00	$ 325.13	3.a. + 3.b.
d. Age-Sex Factors	92.8%	102.6%	103.4%	98.2%	98.3%	101.7%	See Exhibit 4.
e. Area Factors	100.2%	101.1%	101.1%	100.9%	99.8%	101.0%	See Exhibit 5.
f. Size Factor	93.5%	96.4%	102.9%	101.6%	100.8%	99.1%	See Exhbit 6.
g. Sub-total: Current Premium Level	$ 322.03	$ 340.08	$ 302.21	$ 292.95	$ 293.52	$ 319.82	3.c./(3.d. x 3.e. x 3.f.)
h. Trend factor	122.7%	122.7%	122.7%	122.7%	122.7%	122.7%	2.g.
i. **"Do Nothing" Premium for 1/1/2011 Effective Date**	**$ 395.04**	**$ 417.19**	**$ 370.73**	**$ 359.37**	**$ 360.06**	**$ 392.33**	3.g. x 3.h.
4. **Supportable Pricing Adjustment**	**-4.0%**	**4.4%**	**14.8%**	**2.1%**	**-1.1%**	**6.3%**	2.j./3.i.-1
5. **Recommended Action**				$ 359.37		**8.0%**	

Exhibit 1.b.
Great Expectations
Base Rate Review for Old London Market
Small Business 2- 50 Lives
Wear-off Factors

		HMO	POS	PPO	HRA	HSA
Duration	Factor	**0.983**	**0.978**	**0.979**	**0.973**	**0.972**
1	0.670	5	175	118	83	22
2	0.780	8	321	98	79	23
3	0.820	9	185	92	40	15
4	0.860	6	133	77	53	21
5	0.890	7	79	56	47	26
6	0.910	9	55	75	52	29
7	0.930	8	83	33	61	27
8	0.950	4	87	61	41	18
9	0.950	5	75	68	36	15
10	0.970	2	120	52	42	23
11	0.970	3	135	49	24	15
12	0.990	4	152	46	42	16
13+	1.000	430	8400	4675	2400	750
Total Members		500	10,000	5,500	3,000	1,000

Notes:

Represents: Underwriting wear-off; that is, the tendency of groups to use fewer benefits at the lower durations

Source: Study, based on actual experience adjusted for age-sex, area and other variables that might skew the results

Exhibit 1.c.
Great Expectations
Base Rate Review for Old London Market
Small Business 2- 50 Lives
Age-Sex Calculations

		HMO	POS	PPO	HRA	HSA
Average Factor		**0.928**	**1.026**	**1.034**	**0.982**	**0.983**
MALE						
M-Children	0.558	109	1,877	977	415	115
<25	0.437	10	147	108	209	105
25-29	0.492	21	256	186	255	97
30-34	0.574	25	375	211	130	50
35-39	0.657	25	449	225	110	50
40-44	0.864	18	398	198	130	37
45-49	1.123	12	339	243	102	32
50-54	1.509	7	553	213	74	25
55-59	2.001	5	241	105	57	19
60-64	2.657	3	130	72	39	13
65+	3.215	5	96	53	29	10
FEMALE						
F-Children	0.558	106	1,895	950	435	110
<25	1.057	12	180	90	139	23
25-29	1.446	22	354	242	109	44
30-34	1.406	26	525	289	128	52
35-39	1.216	27	540	346	136	54
40-44	1.202	18	503	277	160	50
45-49	1.380	16	373	243	112	37
50-54	1.638	12	279	203	84	28
55-59	1.880	9	219	121	66	22
60-64	2.272	7	155	85	46	15
65+	2.749	6	116	64	35	12
Total Members		500	10,000	5,500	3,000	1,000

Notes:

Represents: Relative costs by age-sex

Source: Study, based on actual experience adjusted for area,wear-off and other variables that might skew the results

Exhibit 1.d.
Great Expectations
Base Rate Review for Old London Market
Small Business 2- 50 Lives
Area Factors

		HMO	POS	PPO	HRA	HSA
Average Factor		**1.002**	**1.011**	**1.011**	**1.009**	**0.998**
Area 1	1.050	211	4,472	2,400	1,134	398
Area 2	0.960	158	2,368	1,661	850	323
Area 3	0.910	87	1,785	726	515	196
Area 4	1.100	44	1,375	713	501	83
Total Members		500	10,000	5,500	3,000	1,000

Notes:

Represents: Unit costs for a market basket of goods and services

Source: Projected increases by provider, supplied by the network area

Exhibit 1.e.
Great Expectations
Base Rate Review for Old London Market
Small Business 2- 50 Lives
Size Adjustments

		HMO	POS	PPO	HRA	HSA
Size Band	Factor	0.935	0.964	1.029	1.016	1.008
1 - 3	1.2074	45	1,653	1,781	83	295
4 - 5	1.0199	55	1,123	981	79	120
6 - 9	0.9438	93	2,509	1,453	40	244
10 - 25	0.8690	221	3,506	634	53	253
25+	0.9000	86	1,209	651	47	88
Total Members		500	10,000	5,500	302	1,000

Notes:

Represents: Anti-selection by size of group

Source: Study, based on actual experience adjusted for age-sex, area and other variables that might skew the results

Exhibit 1.f.
Great Expectations
Base Rate Review for Old London Market
Small Business 2- 50 Lives
Pricing Trend Development

	2010	2011	Combined	Comments
Core Utilization	2.0%	3.0%	5.1%	Based on economic model tying to disposable income, etc
Mix of Services/Providers	1.0%	1.0%	2.0%	Tendency to gradually use more intense services
Health Technology Pipeline	0.3%	0.5%	0.8%	New drugs, guidelines, etc
Unit Cost Impact	5.0%	6.0%	11.3%	Based on market basket of services, similar to area factors
Regulatory Impacts	0.3%	-0.3%	0.0%	New state mandates, etc
Great Expectations Policy Process Changes	-0.4%	0.0%	-0.4%	Changes initiatiated by Great Expectations (claims processing, etc)
Work/Calendar Day Adjustments	-0.3%	0.1%	-0.2%	Reflects tendency of people to use services more on work days
Allowed Trend	**7.9%**	**10.3%**	**18.6%**	
Leveraging	0.5%	0.5%	1.0%	Impact of fixed deductible
Demographics	0.5%	0.5%	1.0%	Gradual aging of population
Other	0.0%	-0.5%	-0.5%	
Net Paid, Before Marign	**8.9%**	**10.8%**	**20.7%**	
Margin	1.0%	1.0%	2.0%	
Pricing Trend	**9.9%**	**11.8%**	**22.7%**	

Allowed costs represent the combined amount paid to a provider from the insurance carrier and the member. For an in-network provider, the allowed cost represents the provider negotiated amount. For example, assume the carrier has negotiated a 20% discount off billed charges for a service that has a $100 billed charge and the member has a $10 copay, then the net paid amount is $70 and the allowed cost is $80.

Billed Charge	$100
Provider Discount	$20
Allowed Cost	$80
Member Copay	($10)
Net Paid	$70

For an out-of-network provider, the allowed charge represents the lesser of the billed charges and the usual, customary, and reasonable (UCR) amount.

Exhibit 2.
Great Expectations
Customer Specific Data: Joe's Garage

Experience Analysis

Employee Number	Employee Last Name	Employee First Name	Tier	Member First Name	Age-Sex/ Gender	Relationship	Area	Member Months	Allowed Claims	Total Net Paid Claims	Paid Excluding Large Claims
1	Smith	John	Employee Only	John	25M	Employee	Area 1	6	$ -	$ -	$ -
2	Doe	Jane	Family	Jane	32F	Employee	Area 3	12	$ 260,000	$ 250,000	$ 25,000
2	Doe	Jane	Family	Daniel	33M	Spouse	Area 3	12	$ 300	$ 250	$ 250
2	Doe	Jane	Family	Mary	4F	Child	Area 3	12	$ 100	$ 70	$ 70
2	Doe	Jane	Family	Billy	5M	Child	Area 3	12	$ 1,000	$ 900	$ 900
3	Brown	Barry	Employee + Spouse	Barry	49M	Employee	Area 2	12	$ 3,000	$ 2,550	$ 2,550
3	Brown	Barry	Employee + Spouse	Betty	39F	Spouse	Area 2	12	$ 1,000	$ 600	$ 600
								78	$ 265,400	$ 254,370	$ 29,370

Unique Members =		7
Member Months		78
Average Members		6.5
Total Claims =	$	254,370
PMPM, including Large Claims =	$	3,261.15
Total Claims excluding large claims	$	29,370
PMPM, Excluding Large Claims	$	376.54

Group Effective Date	1/1/2009
Premium Rate Effective Dage	1/1/2011

Exhibit 3.a.
Great Expectations
Customer Specific Data: Joe's Garage
Manual Rate Calculation

Item	Value	Comments
1.a. Base PMPM	$ 359.37	Base rate, see Exhibit 1.a
1.b. Wear-off Factor	0.820	Plan will be in duration 3, effective 1/1/2011 (See Exhibit 1.b)
1.c. Age-Sex Factor	0.847	See Exhibit 3.b.
1.d. Size Adjustment	0.944	Based on 7 members, see Exhibit 1.e.
1.e Final Manual Rate	$ 235.49	1.a. x 1.b. x 1.c. x 1.d.

Exhibit 3.b.
Great Expectations
Customer Specific Data: Joe's Garage
Age-Sex Calculations

Average Factor		**0.847**
MALE		
M-Children	0.558	1
<25	0.437	0
25-29	0.492	1
30-34	0.574	1
35-39	0.657	0
40-44	0.864	0
45-49	1.123	1
50-54	1.509	0
55-59	2.001	0
60-64	2.657	0
65+	3.215	0
FEMALE		
F-Children	0.558	1
<25	1.057	0
25-29	1.446	0
30-34	1.406	1
35-39	1.216	1
40-44	1.202	0
45-49	1.380	0
50-54	1.638	0
55-59	1.880	0
60-64	2.272	0
65+	2.749	0
Total Members		7

Notes:

Represents: Relative costs by age-sex

Source: Study, based on actual experience adjusted for area,wear-off and other variables that might skew the results

Exhibit 3.c.
Great Expectations
Customer Specific Data: Joe's Garage
Area Factor Calculations

Average Factor		**0.944**
Area 1	1.050	1
Area 2	0.960	2
Area 3	0.910	4
Area 4	1.100	0
Total Members		7

Notes:

Represents: Unit costs for a market basket of goods and services

Source: Projected increases by provider, supplied by the network area

Exhibit 4.a.

Great Expectations

Customer Specific Data: Joe's Garage

Premium Calculation

Final PMPM

Manual Rate	$	235.49
Experience Adjusted for large claims	$	376.54
Credibility Factor		5%
Final PMPM	$	242.54

	Standard Employee Distribution	**Assumed Contract Size**	Tier Load		
Single	**35%**	1.00	1.000	$	295.15
EE + SP	**10%**	2.00	2.000	$	590.30
EE + CH(+)	**30%**	2.50	1.800	$	531.27
EE + FAM.	**25%**	4.00	3.200	$	944.49
	100%				
	Average Contract Size	2.30			

Cost Per Employee	$	557.84
Average Tier Load		1.89
Load Factor	$	295.15

Exhibit 4.b.

Great Expectations
Customer Specific Data: Joe's Garage
Credibility Factors

Number of Members		**Credibility Factor**
0	5	0%
6	25	5%
26	100	10%
101	500	15%
501	1,000	28%
1,001	2,000	40%
2,001	3,000	49%
3,001	4,000	56%
4,001	5,000	63%
5,001	6,000	69%
6,001	7,000	75%
7,001	8,000	80%
8,001	9,000	85%
9,001	10,000	89%
10,001	11,000	93%
11,001	12,000	98%
12,001 and above		100%

Email 4

From: Ebenezer Scrooge <escrooge@greatexp.com>
To: You
Sent: March 22, 2010
Subject: Actuarial Questions

I'm the CFO, Mr. Scrooge. People call me Mr. Scrooge.

I'm concerned about some questions our auditors have been asking about our year-end reserves for Barnaby Rudge, Inc. (BRI). I've attached our former consulting actuary's statement of opinion for your information.

My expectation is that you will review and get back to me – soon!

Table 3

Barnaby Rudge, Inc.

Actuarial Statement of Opinion

I, Mr. Fagan, FSA, MAAA am associated with Sowerberry's Consulting Firm. I am a member of the American Academy of Actuaries and have been retained by Barnaby Rudge, Inc. (BRI) with regard to their aggregate reserves.

I have examined the actuarial assumptions and actuarial methods used in determining the contract reserves as shown in the annual statement of the company, as prepared for filing with state regulatory officials, as of December 31, 2009.

Aggregate Reserve for Accident and Health Contracts: $151,979,000

In forming my opinion on BRI's reserves, I evaluated that data for reasonableness and consistency. I also reconciled that data to the Company's current annual statement. In other respects, my examination included such review of the actuarial assumptions and actuarial methods used and such tests of the calculations as I considered necessary.

In my opinion the amounts carried in the balance sheet on account of the actuarial items identified above:

A. Are computed in accordance with commonly accepted actuarial standards consistently applied and are fairly stated in accordance with sound actuarial principles,
B. Are based on actuarial assumptions which are in accordance with or stronger than those called for in contract provisions,
C. Meet the requirements of the insurance laws of (state of domicile),
D. Make a good and sufficient provision for all unmatured obligations of the Company guaranteed under the terms of its contracts,
E. Are computed on the basis of assumptions consistent with those used in computing the corresponding items in the annual statement of the preceding year end, and
F. Include provision for all actuarial reserves and related statement items which ought to be established.

Actuarial methods, considerations and analyses used in forming my opinion conform to the appropriate Standards of Practice as promulgated from time to time by the Actuarial Standards Board, which standards form the basis of this statement of opinion."

____

Email 5

From: Kate Nickleby <knickleb@greatexp.com>
To: You
Sent: March 23, 2010
Subject: Reserving and Trend Information

Hello.

I am one of your actuarial students. Per your request to my supervisor, I am providing you some additional information (Tables 4, 5 and 6) on Barnaby Rudge's (BRI) Incurred but not Paid (IBNP) reserves. As of December 31, 2009, the IBNP was $151,979,000 (previously $192,180,000 as of December 31, 2008). For clarity, these reserves include due and unpaid claims, IBNR, and claims in course of settlement. I calculated these using the combined medical and pharmacy claims data and all product types.

As you also requested, I have included a summary output table (Table 7) of the claims data showing PMPMs for both rolling 6-month and 12-month periods.

Please let me know if you have any additional questions. Note, though, that I am out Tuesdays and Thursdays studying for exams.

Kate

Table 4

Barnaby Rudge, Inc.

Summary Output 6-month Average Factors				
Month	**Claims Paid (in \$1,000s)**	**Incurred & Paid (in \$1,000s)**	**Completion Factors**	**Members (in 1,000s)**
Jan-07		$45,500	1.0000	930
Feb-07		$41,400	1.0000	943
Mar-07		$46,900	1.0000	944
Apr-07		$46,700	1.0000	945
May-07		$43,700	1.0000	944
Jun-07		$43,500	1.0000	944
Jul-07		$43,700	1.0000	943
Aug-07		$42,000	1.0000	939
Sep-07		$42,500	1.0000	934
Oct-07		$46,900	1.0000	933
Nov-07		$43,500	1.0000	936
Dec-07		$47,800	1.0000	937
Jan-08	$51,600	$48,100	1.0000	937
Feb-08	$43,100	$44,100	1.0000	940
Mar-08	$46,200	$48,800	1.0000	942
Apr-08	$44,000	$48,900	1.0000	942
May-08	$55,700	$46,800	1.0000	940
Jun-08	$43,800	$49,500	1.0000	939
Jul-08	$58,300	$50,700	1.0000	943
Aug-08	$45,000	$48,500	1.0000	939
Sep-08	$44,000	$49,500	1.0000	937
Oct-08	$55,000	$52,200	1.0000	945
Nov-08	$45,100	$50,200	1.0000	945
Dec-08	$56,600	$54,300	1.0000	945
Jan-09	$48,700	$51,200	1.0000	945
Feb-09	$46,700	$49,700	1.0000	966
Mar-09	$50,400	$57,600	1.0000	964
Apr-09	$64,900	$54,100	1.0000	968
May-09	$49,400	$52,400	1.0000	967
Jun-09	$49,500	$54,800	1.0000	968
Jul-09	$60,900	$55,000	0.9494	969
Aug-09	$53,800	$55,100	0.9270	974
Sep-09	$53,100	$53,300	0.8830	974
Oct-09	$72,100	$49,300	0.8022	976
Nov-09	$51,400	$39,200	0.5934	980
Dec-09	$68,500	$8,100	0.0759	979

Table 5

Barnaby Rudge, Inc.

Summary Output - Copay Plans 6-month Average Factors				
Month	**Claims Paid (in $1,000s)**	**Incurred & Paid (in $1,000s)**	**Completion Factors**	**Members (in 1,000s)**
Jan-07		$34,580	1.0000	698
Feb-07		$31,257	1.0000	688
Mar-07		$35,175	1.0000	678
Apr-07		$34,792	1.0000	668
May-07		$32,338	1.0000	658
Jun-07		$31,973	1.0000	648
Jul-07		$31,901	1.0000	638
Aug-07		$30,450	1.0000	628
Sep-07		$30,600	1.0000	618
Oct-07		$33,534	1.0000	608
Nov-07		$30,885	1.0000	598
Dec-07		$33,699	1.0000	588
Jan-08	$36,120	$33,670	1.0000	578
Feb-08	$29,955	$30,650	1.0000	568
Mar-08	$31,878	$33,672	1.0000	558
Apr-08	$30,140	$33,497	1.0000	548
May-08	$37,876	$31,824	1.0000	538
Jun-08	$29,565	$33,413	1.0000	528
Jul-08	$39,061	$33,969	1.0000	518
Aug-08	$29,925	$32,253	1.0000	508
Sep-08	$29,040	$32,670	1.0000	498
Oct-08	$36,025	$34,191	1.0000	488
Nov-08	$29,315	$32,630	1.0000	478
Dec-08	$36,507	$35,024	1.0000	468
Jan-09	$31,168	$32,768	1.0000	458
Feb-09	$29,655	$31,560	1.0000	448
Mar-09	$31,752	$36,288	1.0000	438
Apr-09	$40,563	$33,813	1.0000	428
May-09	$30,628	$32,488	1.0000	418
Jun-09	$30,443	$33,702	1.0000	408
Jul-09	$37,149	$33,550	0.9690	398
Aug-09	$32,549	$33,336	0.9456	388
Sep-09	$31,860	$31,980	0.8948	378
Oct-09	$42,900	$29,334	0.8234	368
Nov-09	$30,326	$23,128	0.6176	358
Dec-09	$40,073	$4,739	0.1049	348

Table 6

Barnaby Rudge, Inc.

Summary Output - High Deductible Plans 6-month Average Factors				
Month	**Claims Paid (in $1,000s)**	**Incurred & Paid (in $1,000s)**	**Completion Factors**	**Members (in 1,000s)**
Jan-07		$10,920	1.0000	233
Feb-07		$10,143	1.0000	256
Mar-07		$11,725	1.0000	267
Apr-07		$11,909	1.0000	278
May-07		$11,362	1.0000	287
Jun-07		$11,528	1.0000	297
Jul-07		$11,799	1.0000	306
Aug-07		$11,550	1.0000	312
Sep-07		$11,900	1.0000	317
Oct-07		$13,367	1.0000	326
Nov-07		$12,615	1.0000	339
Dec-07		$14,101	1.0000	350
Jan-08	$15,480	$14,430	1.0000	360
Feb-08	$13,146	$13,451	1.0000	373
Mar-08	$14,322	$15,128	1.0000	385
Apr-08	$13,860	$15,404	1.0000	395
May-08	$17,824	$14,976	1.0000	403
Jun-08	$14,235	$16,088	1.0000	412
Jul-08	$19,239	$16,731	1.0000	426
Aug-08	$15,075	$16,248	1.0000	432
Sep-08	$14,960	$16,830	1.0000	440
Oct-08	$18,975	$18,009	1.0000	458
Nov-08	$15,785	$17,570	1.0000	468
Dec-08	$20,093	$19,277	1.0000	478
Jan-09	$17,532	$18,432	1.0000	488
Feb-09	$17,046	$18,141	1.0000	519
Mar-09	$18,648	$21,312	1.0000	527
Apr-09	$24,338	$20,288	1.0000	541
May-09	$18,772	$19,912	1.0000	550
Jun-09	$19,058	$21,098	1.0000	561
Jul-09	$23,751	$21,450	0.9234	572
Aug-09	$21,251	$21,765	0.8972	587
Sep-09	$21,240	$21,320	0.8546	597
Oct-09	$29,201	$19,967	0.7856	609
Nov-09	$21,074	$16,072	0.5332	623
Dec-09	$28,428	$3,362	0.0343	632

Table 7

Barnaby Rudge, Inc.
PMPM Trend Table

Summary Output								
Month	**Members (in 1,000s)**	**Claims Paid (in $1,000s)**	**Incurred & Paid (in $1,000s)**	**Completion Factors**	**Incurred Estimate (in $1,000s)**	**Incurred PMPM Estimate**	**6-month Rolling (PMPM)**	**12-month Rolling (PMPM)**
Jan-07	930		$45,500	1.0000	$45,500	$48.92		
Feb-07	943		$41,400	1.0000	$41,400	$43.90		
Mar-07	944		$46,900	1.0000	$46,900	$49.68		
Apr-07	945		$46,700	1.0000	$46,700	$49.42		
May-07	944		$43,700	1.0000	$43,700	$46.29		
Jun-07	944		$43,500	1.0000	$43,500	$46.08	$47.38	
Jul-07	943		$43,700	1.0000	$43,700	$46.34	$46.95	
Aug-07	939		$42,000	1.0000	$42,000	$44.73	$47.09	
Sep-07	934		$42,500	1.0000	$42,500	$45.50	$46.40	
Oct-07	933		$46,900	1.0000	$46,900	$50.27	$46.53	
Nov-07	936		$43,500	1.0000	$43,500	$46.47	$46.56	
Dec-07	937		$47,800	1.0000	$47,800	$51.01	$47.39	$47.38
Jan-08	937	$51,600	$48,100	1.0000	$48,100	$51.33	$48.22	$47.58
Feb-08	940	$43,100	$44,100	1.0000	$44,100	$46.91	$48.58	$47.84
Mar-08	942	$46,200	$48,800	1.0000	$48,800	$51.80	$49.64	$48.01
Apr-08	942	$44,000	$48,900	1.0000	$48,900	$51.91	$49.91	$48.22
May-08	940	$55,700	$46,800	1.0000	$46,800	$49.79	$50.46	$48.51
Jun-08	939	$43,800	$49,500	1.0000	$49,500	$52.72	$50.74	$49.07
Jul-08	943	$58,300	$50,700	1.0000	$50,700	$53.76	$51.15	$49.69
Aug-08	939	$45,000	$48,500	0.9993	$48,533	$51.69	$51.95	$50.27
Sep-08	937	$44,000	$49,500	0.9990	$49,550	$52.88	$52.12	$50.88
Oct-08	945	$55,000	$52,200	0.9976	$52,324	$55.37	$52.70	$51.31
Nov-08	945	$45,100	$50,200	0.9966	$50,370	$53.30	$53.29	$51.88
Dec-08	945	$56,600	$54,300	0.9950	$54,575	$57.75	$54.13	$52.44
Jan-09	945	$48,700	$51,200	0.9937	$51,526	$54.52	$54.26	$52.71
Feb-09	966	$46,700	$49,700	0.9911	$50,147	$51.91	$54.28	$53.12
Mar-09	964	$50,400	$57,600	0.9879	$58,305	$60.48	$55.56	$53.85
Apr-09	968	$64,900	$54,100	0.9828	$55,046	$56.87	$55.81	$54.27
May-09	967	$49,400	$52,400	0.9771	$53,628	$55.46	$56.16	$54.74
Jun-09	968	$49,500	$54,800	0.9682	$56,601	$58.47	$56.29	$55.22
Jul-09	969	$60,900	$55,000	0.9494	$57,934	$59.79	$57.16	$55.73
Aug-09	974	$53,800	$55,100	0.9270	$59,439	$61.03	$58.68	$56.51
Sep-09	974	$53,100	$53,300	0.8830	$60,365	$61.98	$58.94	$57.26
Oct-09	976	$72,100	$49,300	0.8022	$61,457	$62.97	$59.96	$57.90
Nov-09	980	$51,400	$39,200	0.5934	$66,057	$67.41	$61.95	$59.08
Dec-09	979	$68,500	$8,100	0.0759	$106,725	$109.01	$70.40	$63.39

Email 6

From: Dr. Alexander Manette <amanette@greatexp.com>
To: You
Sent: March 3, 2010
Subject: Medical Management Help

Hello and welcome aboard.

Let me introduce myself. I'm Dr. Alexander Manette, but please call me Alex. I am VP of our Medical Management area.

We currently are split up into two primary areas: disease management and case management. Unfortunately, we are light on any kind of metrics. Here is some information we have gathered regarding 2009 experience.

Service Category	2009 Utilization	2009 Claims Paid (in $1,000s)
Hospital Inpatient	57,600 Admits	$133,880
Hospital Outpatient	192,000 Services	$153,962
Physician	576,000 Visits	$267,760
RX	768,000 Scripts	$113,798
Total	2,211,000 Claims	$669,400

I understand you have some experience in this area and I'd like to talk with you further about it. I'll set up some time so we can speak.

Regards - Alex

Email 7

From: Charles Dickens <cdickens@greatexp.com>
To: You
Sent: March 3, 2010
Subject: Sales Request

I don't know if you've had the pleasure to meet or VP of marketing. In any case, please review the following e-mail.

Forwarded by Charles Dickens <cdickens@greatexp.com> ______________________

From: Oliver Twist <otwist@greatexp.com>
To: You
Sent: March 3, 2010
Subject: NEED YOUR HELP

Chuck,

As you know, we've had troubles across the board selling our products. I feel like our actuaries are trying to pick our pockets by keeping the rates so high!!

In talking with our brokers and sales staff, the consensus is that for the upcoming year, we need to lower our book rates on our medical products by an additional 10% (not including the 5% you already committed to last week). In so doing, we think we can grow our medical enrolment by 15%, offsetting the decreased premium.

Our top producer in Region 1, Arthur Dodger, has been particularly vociferous in his comments. I'd hate to lose Artie as a broker. However, he is concerned about his ability to sell our products. I've been thinking – he and his staff are experts in the individual and retiree health arena. Is it possible to team up with him in developing new products in these areas?

Regarding the premium issue – I think we're really going to need some relief in the coming year – especially with the changes in the market due to healthcare reform.

With all do respect – please, sir, we want some more.

Ollie

Memo 1

Great Expectations

Memo

To: Charles Dickens

From: Wilkins Macawber

CC:

Date: 8/11/2010

Re: Employee Pilot program for Wellness

Wellness programs are an essential part of employee benefits and groups are asking for advice and direction in their design. As a result of the benefits design and planning committee wants to sell a wellness program to go along with the PPO product.
We need to figure out how to do this right so I think we need to develop our own inhouse program – the numbers for outsourcing don't pencil out. Then after we have a track record and have some success we can start to sell a branded wellness product. I suggest we develop a program for our employees as a first step and consider incorporating spouses and children at a later time.

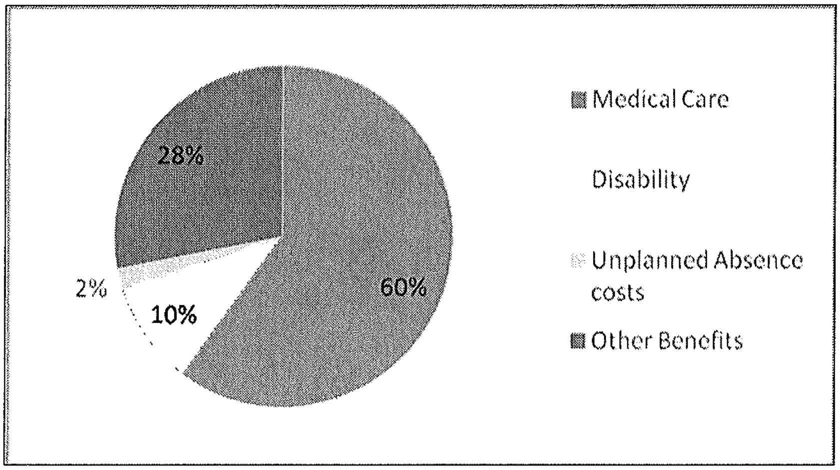
I see the program having the following the following components:

Component	Target Issue
Fit for life	Fitness
Slim-n-Trim at work	Weight management
De-stress Your Life	Stress
No Puffin	Tobacco
Positive Outlook	Anti-depression

I have attached additional details about how the numbers would work on the program, but we have not finalized how the outreach would happen. I will follow up on that as details gel.

Additional Details about the Wellness program:

We see the cost of benefits for an average employee distributed as follows:



We did some research on typical results from wellness programs based on the characteristics of the populations. The population is divided into four groups

- Chronically Ill – these people have diagnosed conditions such as heart disease, diabetes, severe depression, morbid obesity or back conditions.
- Unhealthy Habits – this category includes such people who smoke or are obese, sedentary, chronically stressed, indulge in risky behavior or have depression.
- Mean Well – Most members will be in this category. They don't exercise enough (or too much), could make more healthful food choices, wear sunscreen more frequently, have some stress, be more faithful about health screenings and take other prudent measures to ensure a long and healthy life, but in general they try to do the best they can and most do not have any serious issues.
- Vigorously Healthy. This is the smallest group and they are a rare breed. They are at an appropriate weight, exercise frequently and reasonably, are current on health screenings, practice active stress management, have an active social network or other emotional support and have low risk for developing health issues.

Here are some tables to that show some of the attributes of these people

Prevalence and Likelihood of enrolling in a program

Employee Risk		Prevalence		Program Uptake		
Chronically Ill		6%		15%		
Unhealthy Habits		10%		20%		
Mean Well		79%		10%		
Vigorously Healthy		5%		15%		

Relative Cost Factors

Employee Risk		Medical Care		Absenteeism		Disability Costs
Chronically Ill		2.2		2		4
Unhealthy Habits		1.1		1.2		1.1
Mean Well		1.02		1.1		1.1
Vigorously Healthy		.80		.8		.8

Savings Estimates

Employee Risk		Medical Care		Absenteeism		Disability Costs
Chronically Ill		8%		10%		20%
Unhealthy Habits		15%		15%		20%
Mean Well		12%		20%		10%
Vigorously Healthy		1%		1%		1%

Email 8

To: Actuarial
From: Wilkins Macawber
Executive Director
Provider Contracting
Great Expectations
Sent: March 29, 2010
Subject: Provider list

Attached is the provider information you asked for – names, specialties, reimbursement, and location. The material is current as of this month; I will let you know if anything changes. I am sure that if we put our minds to it we can get a solid network put together.

Call me if you have any questions.

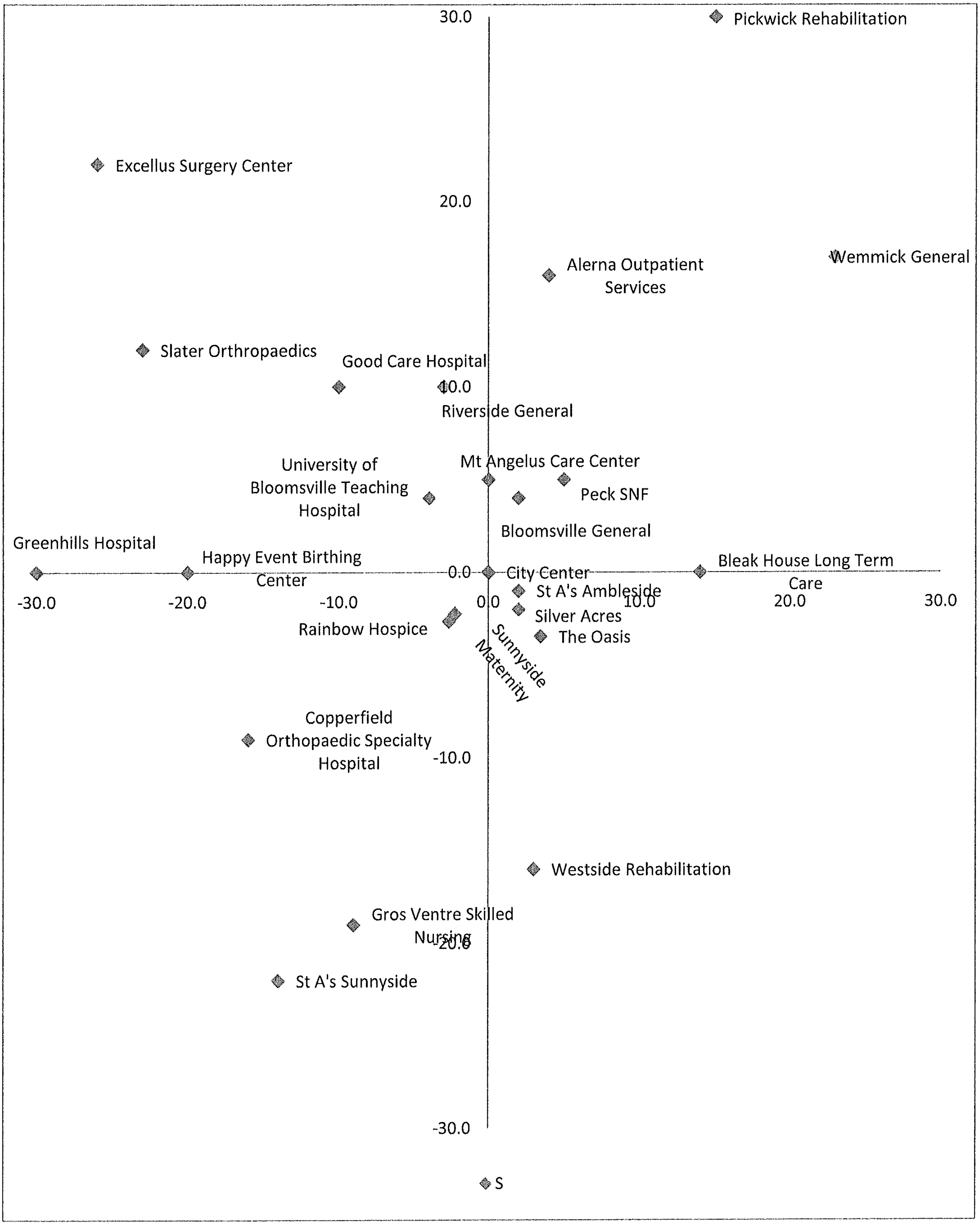
Wilkie

Table 8

Hospitals Available for Contracting

Hospital	Type of Hospital	Payment Method	Average Payment	Distance From Center
Excellus Surgery Center	ASC	Per Case	$ 3,310	34.1 km NW
Silver Acres	Behavioral Health	Per Diem	$ 1,200	2.8 km SE
The Oasis	Behavioral Health	Per Diem	$ 1,500	4.9 km SE
Mt Angelus Care Center	Hospice	Per Diem	$ 975	5.0 km N
Rainbow Hospice	Hospice	Per Diem	$ 1,075	3.7 km SW
Bleak House Long Term Care	LTC	Per Diem	$ 1,000	14.0 km E
Sunnyside Maternity	Maternity	Per Case	$ 3,000	3.2 km SW
Happy Event Birthing Center	Maternity	Per Case	$ 3,220	20.0 km W
St A's Sunnyside	Primary	Discount from Charges	15%	26.1 km SW
Greenhills Hospital	Primary	DRG	$ 2,650	30.0 km W
Wemmick General	Primary	Per Diem	$ 900	28.6 km NE
Pickwick Rehabilitation	Rehabilitation	Per Diem	$ 650	33.5 km NE
Westside Rehabilitation	Rehabilitation	Per Diem	$ 700	16.3 km SE
Good Care Hospital	Secondary	Discount from Charges	30%	14.1 km NW
Riverside General	Secondary	DRG	$ 4,300	10.4 km NW
Bloomsville General	Secondary	Per Diem	$ 1,375	4.5 km NE
Peck SNF	SNF	Per Diem	$ 450	7.1 km NE
Gros Ventre Skilled Nursing	SNF	Per Diem	$ 500	21.0 km SW
Copperfield Orthopaedic Specialty Hospital	Specialty	Per Case	$ 4,200	18.4 km SW
Slater Orthropaedics	Specialty	Per Case	$ 5,500	25.9 km NW
Alerna Outpatient Services	ASC	Per Case	$ 3,750	16.5 km NE
University of Bloomsville Teaching Hospital	Tertiary	DRG	$ 17,000	5.7 km NW
St A's Ambleside	Tertiary	Per Diem	$ 6,200	2.2 km SE

Table 9



30.0
Pickwick Rehabilitation
Excellus Surgery Center
20.0
Alerna Outpatient Services
Wemmick General
Slater Orthropaedics
Good Care Hospital
10.0
Riverside General
University of Bloomsville Teaching Hospital
Mt Angelus Care Center
Peck SNF
Bloomsville General
Greenhills Hospital
Happy Event Birthing Center
0.0
City Center
Bleak House Long Term Care
St A's Ambleside
-30.0
-20.0
-10.0
0.0
10.0
20.0
30.0
Silver Acres
Rainbow Hospice
The Oasis
Sunnyside Maternity
Copperfield Orthopaedic Specialty Hospital
-10.0
Westside Rehabilitation
Gros Ventre Skilled Nursing
-20.0
St A's Sunnyside
-30.0
S

Email 9

From: Jaggers
To: Charles Dickens
Sent: March 10, 2010
Subject: LTC Claims Process

Mr. Dickens,

In response to your inquiry about our practices at the claims adjudication unit of the Long-Term Care division, I offer the following.

Our Long Term Care policies pay a daily benefit for eligible claims. A claim is eligible for payment when the policyholder is cognitively impaired and requires supervision or is unable to perform at least two of the following six activities of daily living (ADSs):

- Bathing
- Continence (bladder and bowel control)
- Dressing
- Eating
- Toileting
- Transferring (moving between a bed and chair)

When we receive a claim, the claim adjudicator verifies from the physician statement that the benefit eligibility requirements are met, and follows up with the physician if there are any questions. Once approved, a case-specific plan is put together to monitor continuing claim eligibility.

Eligible claims pay a monthly benefit subject to the elimination period, benefit period, and daily maximum as stated in the policy. The standard policy limits payments to actual charges for long-term-care services, but we sell a popular rider that makes a fixed cash payment regardless of the cost of services.

Please let me know if you have any more questions.

Sincerely,

Mr. Jaggers

Email 10

From:	Mr. Wemmick
To:	Charles Dickens
Sent:	March 15, 2010
Subject:	Recommendation for Rate Increase on LTC Block

Dear Mr. Dickens,

We have been monitoring our claim experience on our young LTC block of business, and as I'm sure you've noticed, the financial results are disappointing. As I explain below, we need a 40% rate increase for this block in order to meet our profit objectives.

The poor results are driven by low claim termination rates and the deteriorating returns on our investment portfolio, and are partially offset by lower-than-expected claim incidence rates.

Original Pricing Assumptions

We entered the LTC market in 2005. The original product was based upon claim incidence and termination rates that were provided to us by the actuarial consultants at Pumblechook. The incidence and termination rates were used to calculate attained-age claim costs for various age/sex/class/benefit combinations. Subsequently, the claim costs were loaded into an asset share model for key cells, and the gross premiums were calculated.

The worksheet *2005 Asset Share Model* shows the model for a representative pricing cell.

Experience Analysis

Since the first policy was issued in February of 2005, we've kept track of how many new claims we expected, based upon our actual exposure and the assumed incidence rates that went into pricing. We then compared that to how many actual claims were incurred. Worksheet *AE* (not provided) shows the actual-to-expected ratio for incurred claims for every month between February 2005 and March 2010. In aggregate, we've expected 6,049 claims to be incurred, but only had 5,599 claims for an A/E ratio of 93%.

While we are happy that fewer claims were incurred than expected, it's disappointing that once somebody goes on claim, they are slow to recover. Worksheet *AE* also shows the actual to expected claim terminations for every time period. The expected claim terminations were calculated using the pricing claim termination rates on the actual claim deck at the start of every month. We would expect a total of 2,848 claim terminations, but only had 2,303 for an A/E rate of 81%.

Re-pricing

We don't have enough detailed credible data to recalculate the incidence and termination rates based upon our own data. However, I was able to calibrate our existing rates to our own experience by multiplying them by the A/E's we calculated. I used these new rates (and a new discount rate) to calculate new claim costs and subsequently redid the asset share model using the updated portfolio expectations. This exercise demonstrates that we need a 40% rate increase in order to achieve our desired profit objectives.

The worksheet *2010 Old Rates* shows the that the present-value of profit as a percent of premium will be a **negative** 7.21% without a rate increase. The worksheet *2010 New Rates* shows that we can expect an 8.63% profit margin with the rate increase.

Sincerely,

Mr. Wemmick

Exhibit 5.a.

2005 Asset Share Model

Asset Share

8/10/2010

		Inforce		Revenue		CLA
	Attained Age at t	Total Decrements (Mortality and Lapse)	Number of In Force Policies (EOP)	Total Premium Income	Investment Income	Claim Cost
0	60		1.000			
1	61	5.0%	0.950	1,284.00	(3.85)	489.49
2	62	4.0%	0.912	1,219.80	88.08	513.96
3	63	3.0%	0.885	1,171.01	109.84	539.66
4	64	2.0%	0.867	1,135.88	130.98	566.64
5	65	2.0%	0.850	1,113.16	151.63	594.97
6	66	2.0%	0.833	1,090.90	171.59	624.72
7	67	2.0%	0.816	1,069.08	190.79	655.96
8	68	2.0%	0.800	1,047.70	209.21	688.76
9	69	2.0%	0.784	1,026.74	226.78	723.20
10	70	2.0%	0.768	1,006.21	243.46	759.36
11	71	2.0%	0.753	986.08	259.20	797.33
12	72	2.0%	0.738	966.36	273.92	837.20
13	73	2.0%	0.723	947.04	287.58	879.06
14	74	2.0%	0.708	928.09	300.09	923.01
15	75	2.0%	0.694	909.53	311.40	969.16
16	76	2.5%	0.677	891.34	321.41	1,017.62
17	77	3.0%	0.657	869.06	329.96	1,068.50
18	78	3.5%	0.634	842.99	337.00	1,121.93
19	79	4.0%	0.608	813.48	342.52	1,178.03
20	80	4.5%	0.581	780.94	346.51	1,236.93
21	81	5.0%	0.552	745.80	349.01	1,298.78

Exhibit 5.b.

2005 Asset Share Model

Asset Share

8/10/2010

	IMS	Expenses					Reserves
	Incurred Claims	Acquisition Expenses	Maintenance Expenses	Total Gross Expenses	APV Ben	APV $1	Net Premium
0					10,614.54	12.41	855.61
1	465.01	1,348.20	0.00	1,348.20	11,213.05	12.57	
2	468.73	0	182.97	182.97	11,730.69	12.64	
3	477.40	0	175.65	175.65	12,147.08	12.59	
4	491.25	0	170.38	170.38	12,442.88	12.41	
5	505.49	0	166.97	166.97	12,731.35	12.22	
6	520.15	0	163.63	163.63	13,010.56	12.02	
7	535.24	0	160.36	160.36	13,278.35	11.80	
8	550.76	0	157.15	157.15	13,532.35	11.57	
9	566.74	0	154.01	154.01	13,769.95	11.32	
10	583.17	0	150.93	150.93	13,988.26	11.05	
11	600.09	0	147.91	147.91	14,184.09	10.76	
12	617.49	0	144.95	144.95	14,353.96	10.46	
13	635.40	0	142.06	142.06	14,494.03	10.13	
14	653.82	0	139.21	139.21	14,600.10	9.78	
15	672.78	0	136.43	136.43	14,667.55	9.40	
16	688.76	0	133.70	133.70	14,768.33	9.04	
17	701.50	0	130.36	130.36	14,903.45	8.70	
18	710.80	0	126.45	126.45	15,074.39	8.36	
19	716.49	0	122.02	122.02	15,283.20	8.04	
20	718.46	0	117.14	117.14	15,532.57	7.72	
21	716.67	0	111.87	111.87	15,825.87	7.41	

Asset Share

				Profit		
	Policy Reserve Per-Policy	Policy Reserve In Force	Increase in Statutory Reserve	Gross Profit before Tax & Dividends	Tax Payable By Office	Net Income
0	0.00					
1	453.82	431.13	431.13	(964.20)	(337.47)	(626.73)
2	915.94	835.34	404.21	251.97	88.19	163.78
3	1,376.27	1,217.50	382.17	245.63	85.97	159.66
4	1,823.71	1,581.06	363.55	241.68	84.59	157.09
5	2,274.58	1,932.50	351.44	240.89	84.31	156.58
6	2,727.71	2,271.14	338.64	240.06	84.02	156.04
7	3,181.78	2,596.21	325.08	239.19	83.72	155.47
8	3,635.28	2,906.93	310.72	238.27	83.39	154.87
9	4,086.54	3,202.43	295.49	237.28	83.05	154.23
10	4,533.69	3,481.77	279.35	236.22	82.68	153.54
11	4,974.61	3,743.98	262.21	235.07	82.28	152.80
12	5,406.96	3,987.99	244.01	233.83	81.84	151.99
13	5,828.15	4,212.68	224.68	232.48	81.37	151.11
14	6,235.30	4,416.83	204.15	231.00	80.85	150.15
15	6,625.21	4,599.16	182.33	229.38	80.28	149.10
16	7,033.61	4,760.61	161.44	228.84	80.10	148.75
17	7,463.69	4,900.15	139.54	227.61	79.66	147.95
18	7,919.07	5,017.15	117.00	225.74	79.01	146.73
19	8,403.92	5,111.36	94.21	223.28	78.15	145.13
20	8,923.09	5,182.90	71.54	220.31	77.11	143.20
21	9,482.23	5,232.29	49.39	216.88	75.91	140.97

2010 Old Rates

Asset Share

8/10/2010

		Inforce		Revenue		CLA
	Attained Age at t	Total Decrements (Mortality and Lapse)	Number of In Force Policies (EOP)	Total Premium Income	Investment Income	Claim Cost
0	60		1.000			
1	61	5.0%	0.950	1,284.00	(2.57)	611.86
2	62	4.0%	0.912	1,219.80	64.29	642.45
3	63	3.0%	0.885	1,171.01	84.10	674.58
4	64	2.0%	0.867	1,135.88	103.29	708.30
5	65	2.0%	0.850	1,113.16	122.00	743.71
6	66	2.0%	0.833	1,090.90	140.16	780.90
7	67	2.0%	0.816	1,069.08	157.74	819.95
8	68	2.0%	0.800	1,047.70	174.71	860.95
9	69	2.0%	0.784	1,026.74	191.02	904.00
10	70	2.0%	0.768	1,006.21	206.64	949.20
11	71	2.0%	0.753	986.08	221.53	996.66
12	72	2.0%	0.738	966.36	235.63	1,046.50
13	73	2.0%	0.723	947.04	248.89	1,098.83
14	74	2.0%	0.708	928.09	261.27	1,153.76
15	75	2.0%	0.694	909.53	272.71	1,211.45
16	76	2.5%	0.677	891.34	283.14	1,272.03
17	77	3.0%	0.657	869.06	292.46	1,335.63
18	78	3.5%	0.634	842.99	300.62	1,402.41
19	79	4.0%	0.608	813.48	307.61	1,472.54
20	80	4.5%	0.581	780.94	313.42	1,669.86
21	81	5.0%	0.552	745.80	315.19	1,753.35

Asset Share

	IMS	Expenses					Reserves
	Incurred Claims	Acquisition Expenses	Maintenance Expenses	Total Gross Expenses	APV Ben	APV $1	Net Premium
0					13,641.27	12.41	1,099.59
1	581.27	1,348.20	0.00	1,348.20	14,427.65	12.57	
2	585.91	0	182.97	182.97	15,112.54	12.64	
3	596.76	0	175.65	175.65	15,669.64	12.59	
4	614.06	0	170.38	170.38	16,073.88	12.41	
5	631.86	0	166.97	166.97	16,471.41	12.22	
6	650.19	0	163.63	163.63	16,859.98	12.02	
7	669.05	0	160.36	160.36	17,237.09	11.80	
8	688.45	0	157.15	157.15	17,599.98	11.57	
9	708.42	0	154.01	154.01	17,945.57	11.32	
10	728.97	0	150.93	150.93	18,270.51	11.05	
11	750.11	0	147.91	147.91	18,571.05	10.76	
12	771.86	0	144.95	144.95	18,843.10	10.46	
13	794.25	0	142.06	142.06	19,082.13	10.13	
14	817.28	0	139.21	139.21	19,283.20	9.78	
15	840.98	0	136.43	136.43	19,440.86	9.40	
16	860.95	0	133.70	133.70	19,651.20	9.04	
17	876.88	0	130.36	130.36	19,917.15	8.70	
18	888.50	0	126.45	126.45	20,242.55	8.36	
19	895.61	0	122.02	122.02	20,632.33	8.04	
20	969.92	0	117.14	117.14	20,968.96	7.72	
21	967.50	0	111.87	111.87	21,364.93	7.41	

Asset Share

	Policy Reserve Per-Policy	Policy Reserve In Force	Increase in Statutory Reserve	Profit: Gross Profit before Tax & Dividends	Profit: Tax Payable By Office	Profit: Net Income
0	0.00					
1	600.44	570.41	570.41	(1,218.45)	(426.46)	(791.99)
2	1,213.97	1,107.14	536.73	(21.53)	(7.53)	(13.99)
3	1,827.54	1,616.72	509.57	(26.87)	(9.40)	(17.47)
4	2,426.65	2,103.78	487.06	(32.34)	(11.32)	(21.02)
5	3,032.89	2,576.77	472.99	(36.67)	(12.83)	(23.83)
6	3,644.98	3,034.87	458.10	(40.87)	(14.30)	(26.56)
7	4,261.49	3,477.22	442.35	(44.93)	(15.73)	(29.21)
8	4,880.76	3,902.87	425.65	(48.85)	(17.10)	(31.76)
9	5,500.95	4,310.83	407.96	(52.62)	(18.42)	(34.20)
10	6,119.97	4,700.01	389.18	(56.22)	(19.68)	(36.55)
11	6,735.49	5,069.26	369.25	(59.65)	(20.88)	(38.78)
12	7,344.86	5,417.33	348.07	(62.90)	(22.01)	(40.88)
13	7,945.18	5,742.90	325.57	(65.95)	(23.08)	(42.87)
14	8,533.19	6,044.56	301.66	(68.79)	(24.07)	(44.71)
15	9,105.25	6,320.79	276.23	(71.40)	(24.99)	(46.41)
16	9,710.93	6,572.72	251.93	(72.10)	(25.24)	(46.87)
17	10,355.95	6,799.01	226.29	(72.02)	(25.21)	(46.81)
18	11,046.89	6,998.79	199.78	(71.13)	(24.89)	(46.23)
19	11,791.42	7,171.67	172.88	(69.42)	(24.30)	(45.12)
20	12,474.80	7,245.88	74.21	(66.91)	(23.42)	(43.49)
21	13,212.40	7,290.60	44.72	(63.09)	(22.08)	(41.01)

Exhibit 5.g.

2010 New Rates

Asset Share

8/10/2010

		Inforce		Revenue		CLA
	Attained Age at t	Total Decrements (Mortality and Lapse)	Number of In Force Policies (EOP)	Total Premium Income	Investment Income	Claim Cost
0	60		1.000			
1	61	5.0%	0.950	1,800.00	(3.60)	611.86
2	62	4.0%	0.912	1,710.00	83.61	642.45
3	63	3.0%	0.885	1,641.60	105.16	674.58
4	64	2.0%	0.867	1,592.35	126.05	708.30
5	65	2.0%	0.850	1,560.50	146.44	743.71
6	66	2.0%	0.833	1,529.29	166.14	780.90
7	67	2.0%	0.816	1,498.71	185.09	819.95
8	68	2.0%	0.800	1,468.73	203.27	860.95
9	69	2.0%	0.784	1,439.36	220.65	904.00
10	70	2.0%	0.768	1,410.57	237.17	949.20
11	71	2.0%	0.753	1,382.36	252.81	996.66
12	72	2.0%	0.738	1,354.71	267.51	1,046.50
13	73	2.0%	0.723	1,327.62	281.23	1,098.83
14	74	2.0%	0.708	1,301.07	293.91	1,153.76
15	75	2.0%	0.694	1,275.05	305.51	1,211.45
16	76	2.5%	0.677	1,249.55	315.97	1,272.03
17	77	3.0%	0.657	1,218.31	325.12	1,335.63
18	78	3.5%	0.634	1,181.76	332.91	1,402.41
19	79	4.0%	0.608	1,140.40	339.33	1,472.54
20	80	4.5%	0.581	1,094.78	344.38	1,669.86
21	81	5.0%	0.552	1,045.51	345.20	1,753.35

Asset Share

	IMS	Expenses			Reserves		
	Incurred Claims	Acquisition Expenses	Maintenance Expenses	Total Gross Expenses	APV Ben	APV $1	Net Premium
0					16,032.58	13.65	1,174.19
1	581.27	1,890.00	0.00	1,890.00	16,895.71	13.82	
2	585.91	0	256.50	256.50	17,631.95	13.86	
3	596.76	0	246.24	246.24	18,212.77	13.78	
4	614.06	0	238.85	238.85	18,611.81	13.56	
5	631.86	0	234.08	234.08	18,999.70	13.32	
6	650.19	0	229.39	229.39	19,373.98	13.07	
7	669.05	0	224.81	224.81	19,731.96	12.80	
8	688.45	0	220.31	220.31	20,070.72	12.52	
9	708.42	0	215.90	215.90	20,387.02	12.22	
10	728.97	0	211.59	211.59	20,677.35	11.90	
11	750.11	0	207.35	207.35	20,937.87	11.57	
12	771.86	0	203.21	203.21	21,164.39	11.21	
13	794.25	0	199.14	199.14	21,352.36	10.83	
14	817.28	0	195.16	195.16	21,496.82	10.43	
15	840.98	0	191.26	191.26	21,592.38	10.00	
16	860.95	0	187.43	187.43	21,745.45	9.60	
17	876.88	0	182.75	182.75	21,958.10	9.21	
18	888.50	0	177.26	177.26	22,233.29	8.83	
19	895.61	0	171.06	171.06	22,574.99	8.47	
20	969.92	0	164.22	164.22	22,864.64	8.12	
21	967.50	0	156.83	156.83	23,214.83	7.78	

Asset Share

				Profit		
	Policy Reserve	Policy Reserve In Force	Increase in Statutory Reserve	Gross Profit before Tax & Dividends	Tax Payable By Office	Net Income
0	0.00					
1	670.36	636.84	636.84	(1,311.71)	(459.10)	(852.61)
2	1,352.62	1,233.59	596.75	354.45	124.06	230.39
3	2,032.15	1,797.72	564.13	339.63	118.87	220.76
4	2,692.99	2,334.68	536.96	328.53	114.99	213.54
5	3,358.60	2,853.49	518.81	322.20	112.77	209.43
6	4,027.49	3,353.35	499.86	315.99	110.60	205.39
7	4,697.99	3,833.39	480.04	309.90	108.47	201.44
8	5,368.27	4,292.71	459.31	303.93	106.38	197.55
9	6,036.24	4,730.31	437.61	298.07	104.33	193.75
10	6,699.63	5,145.17	414.86	292.33	102.32	190.02
11	7,355.89	5,536.19	391.01	286.70	100.34	186.35
12	8,002.22	5,902.17	365.98	281.17	98.41	182.76
13	8,635.51	6,241.88	339.71	275.74	96.51	179.23
14	9,252.38	6,554.00	312.12	270.42	94.65	175.77
15	9,849.06	6,837.13	283.13	265.19	92.82	172.37
16	10,478.76	7,092.41	255.28	261.85	91.65	170.20
17	11,147.02	7,318.37	225.96	257.84	90.24	167.59
18	11,860.14	7,514.03	195.66	253.25	88.64	164.61
19	12,625.40	7,678.91	164.88	248.18	86.86	161.32
20	13,327.55	7,741.19	62.28	242.74	84.96	157.78
21	14,082.55	7,770.74	29.55	236.83	82.89	153.94

Email 11

From:	Joe Gargey
To:	Charles Dickens
Sent:	March 15, 2010
Subject:	Rate Calculation Process

Dear Mr. Dickens,

After some initial market research, Great Expectations came to the conclusion that too many "bells and whistles" on our competitors' Long-Term Care products cause a lot of confusion and make the products harder to sell.

In order to allow the sales agents to focus on the underlying need of Long-Term Care coverage, we made the strategic decision to only offer high-quality comprehensive products with minimal options. This makes it particularly easy to calculate the rates for our products.

Our products are sold in units of $100 per-day, and partial units are allowed. To calculate the rate, you look up the base rate, which is a function of age-at-issue, benefit period, and inflation-protection option. That is then multiplied by the number of units chosen, a class-adjustment factor, a marital discount, an elimination-period factor, and the cash-benefit rider factor.

For example, say a 60-year old man purchases 1.5 units of coverage. He gets this with the 3-year benefit period, 5% compound inflation protection, and 180-day elimination period. He's married and in the preferred rating class, and selects the cash benefit rider.

Using the rate book in the attached excel file, the final monthly rate would be:

$$\begin{aligned} Rate &= base \times units \times class \times spouse \times EP \times CB \\ &= 215 \times 1.5 \times 0.95 \times .85 \times .95 \times 1.1 \\ &= 272.14 \end{aligned}$$

Best wishes,

Joe

Table 10

Issue Age	3-year BP No IP	3-year BP 5% Simple	3-year BP 5% Compound	Lifetime BP No IP	Lifetime BP 5% Simple	Lifetime BP 5% Compound
	Base Rate					
30	33	50	88	40	89	174
31	33	50	88	40	89	174
32	33	50	88	40	89	174
33	33	50	88	40	89	174
34	33	50	88	40	89	174
35	33	50	88	40	89	174
36	33	50	88	40	89	174
37	33	50	88	40	89	174
38	33	50	88	40	89	174
39	33	50	88	40	89	174
40	34	52	91	41	92	179
41	35	54	95	43	95	184
42	36	56	98	44	98	190
43	38	58	102	45	101	196
44	39	60	105	47	104	202
45	40	62	109	48	107	208
46	42	64	112	50	110	214
47	43	66	116	51	113	220
48	44	68	119	52	116	227
49	46	70	123	54	119	234
50	48	74	130	56	125	246
51	51	78	137	59	131	258
52	53	82	144	62	138	271
53	56	86	151	65	145	285
54	59	90	158	68	152	299
55	62	95	166	72	160	314
56	65	100	175	76	168	330
57	68	105	184	79	176	347
58	72	110	193	83	185	364
59	75	116	203	87	194	389
60	80	123	215	93	206	416
61	85	130	228	98	218	445
62	90	138	242	104	231	476
63	95	146	256	110	245	509
64	101	155	271	117	260	545
65	107	164	287	124	276	583
66	114	175	306	133	295	624
67	122	187	327	142	316	668
68	130	200	350	152	338	715
69	139	214	375	163	362	765
70	149	229	401	174	387	819
71	161	247	433	188	418	876
72	174	267	468	203	451	937
73	187	288	505	219	487	1003
74	202	311	545	237	526	1073
75	218	336	589	256	568	1148
76	241	370	648	281	625	1228
77	265	407	713	310	688	1314
78	291	448	784	341	757	1406
79	320	493	862	375	833	1504
80	352	542	948	412	916	1609

Table 11

Class Adjustment	
Preferred Plus	0.85
Preferred	0.95
Standard	1.15

Spouse Adj Factor	
Single	1.00
Married	0.85

EP Factor	
0-Day	1.17
30-Day	1.05
90-Day	1.00
180-Day	0.95

Cash Benefit Rider	
Yes	1.10
No	1.00

Email 12

From: Mr. Wopsle
To: Charles Dickens
Sent: March 30, 2010
Subject: LTC Underwriting Process

Dear Mr. Dickens,

In the LTC Underwriting Unit, we medically underwrite the individual insurance applicants to see if they are qualified for coverage and if so, if they are classified as preferred plus, preferred, or standard. The final rate charged to the policyholder is based upon the rates in the manual and are a function of the benefits selected, age at issue, spousal discount, and underwriting class adjustment. The underwriter has no authority to deviate from these rates.

Best wishes,

Mr. Wopsle

Email 13

From: Mr. Wemmick
To: Charles Dickens
Sent: March 30, 2010
Subject: LTD Table

Dear Mr. Dickens,

As you requested, attached (Table 12) is our LTD Reserves Table that we have just updated after concluding our recent experience analysis.

If you have any questions regarding the rates, please feel free to let me know.

Regards,

Mr. Wemmick

Table 12

Great Expectations Initial LTD Reserve Table

Elimination Period = 90 days

Initial Reserve for Open Claim per $100 of Monthly Benefit

Great Expectations Reserves Table

Sex	Age	Claim Incident Rate (per 1000 lives)	Reserve (per $100 monthly benefit)
F	<25	1.1	$ 2,870
F	25-29	1	$ 4,180
F	30-34	1.4	$ 3,820
F	35-39	1.8	$ 5,460
F	40-44	2.3	$ 5,320
F	45-49	2.7	$ 7,010
F	50-54	2.8	$ 5,970
F	55-59	3.1	$ 8,010
F	60-64	3.9	$ 4,090
M	<25	0.8	$ 2,890
M	25-29	1.2	$ 3,580
M	30-34	1.2	$ 3,770
M	35-39	1.5	$ 4,740
M	40-44	2.4	$ 5,190
M	45-49	2.7	$ 6,440
M	50-54	3.1	$ 5,860
M	55-59	3.7	$ 7,160
M	60-64	4.5	$ 3,510

Email 14

From:	Mr. Wemmick
To:	Charles Dickens
Sent:	March 30, 2010
Subject:	LTD Demographics and Benefits

Dear Mr. Dickens,

We have been asked to provide actuarial assistance for 2 companies that are considering merging, and they need to evaluate their long-term disability benefit offerings.

Attached, you will find company demographics (Table 13), as well as specifics around benefit plan design and claims experience for the companies (Table 14).

I am sure we will be in touch soon to discuss this information. In the meantime, if you have questions please feel free to contact me.

Sincerely,

Mr. Wemmick

Table 13

Company Demographics Table

Sikes & Dawkins Security Consultants Demographics

Sex	Age	# FTEs	Avg Salary
F	<25		
F	25-29	75	$ 24,000
F	30-34		
F	35-39	75	$ 36,000
F	40-44		
F	45-49		
F	50-54		
F	55-59		
F	60-64		
M	<25		
M	25-29		
M	30-34		
M	35-39		
M	40-44	100	$ 45,600
M	45-49	50	$ 48,000
M	50-54		
M	55-59		
M	60-64		

Fagin Security, Inc. Demographics

Sex	Age	# FTEs	Avg Salary
F	<25		
F	25-29		
F	30-34		
F	35-39	40	$ 36,000
F	40-44	40	$ 38,400
F	45-49		
F	50-54		
F	55-59		
F	60-64		
M	<25		
M	25-29		
M	30-34		
M	35-39		
M	40-44		
M	45-49	30	$ 48,000
M	50-54		
M	55-59	10	$ 72,000
M	60-64		

Tax Rates:

Working Employees	30%
Disabled Employees	20%

Table 14

Company Experience for the Last Five Years

LTD PLAN DESIGNS		
Description	**Sikes & Dawkins**	**Fagin Security**
Monthly benefit	50% of monthly salary	70% of monthly salary
Monthly maximum benefit	$4,000	$15,000
Elimination period	3 months	6 months
Cost of living adjustment	None	6%
Premium cost-sharing	100% employer paid	100% employee paid

Elimination Period = 90 days

Sikes & Dawkins Experience				
Year	**Total Life-Years**	**Total Claims Paid**	**Total Reserves**	**Projection Interest Rate**
2005	220	$112,200	$336,600	4.0%
2006	210	$119,070	$321,930	4.0%
2007	240	$135,792	$454,608	4.0%
2008	285	$164,502	$468,198	4.0%
2009	270	$155,520	$492,480	4.0%

Elimination Period = 180 days

Fagin Security Experience				
Year	**Total Life-Years**	**Total Claims Paid**	**Total Reserves**	**Projection Interest Rate**
2005	65	$56,550	$169,650	4.0%
2006	75	$65,610	$177,390	4.0%
2007	90	$65,826	$220,374	4.0%
2008	105	$90,090	$256,410	4.0%
2009	110	$88,704	$280,896	4.0%

Credibility

Great Expectations uses a Bayesian credibility with the assumption that k = 5,000 life-years.

Benefit Conversion

Based on Great Expectations analysis, it is assumed that the differences in benefits between Sikes/Dawkins and Fagin (elimination period, maximum coverage, etc.) results in Sikes having a benefit worth 85% of Fagin's benefit, on average.

Retention Requirement

It is Great Expectations policy to load Group LTD rates with 14% retention charge for administrative expenses and margin.