

Report for **John Doe Brokerage**

Date produced: **September 9, 2006**

### Plan Sponsor Information

Group Identifier **ABC Inc.**

Number of Employees **55**

Estimated Percent of employees unc **45.2%**

Annual Payroll and Benefits Budget **\$2,604,736.00**  
(assuming average salary and benefits of \$45000)

Region **Ontario**

<b>Benefit Costs</b>	<b>Premiums</b>
Medical benefits including drugs, hospital, paramedical, nursing, etc	\$79,860.00
Dental	<b>49,876</b>
Total	<b>\$129,736.00</b>

### Risk Analysis

Based on claim patterns from millions of Canadians, the Saddik Self-Funding Security Index uses computer modelling to simulate the results for groups of individuals with characteristics similar to those of the group identified above.

The Index generates 10,000 possible outcomes for the group by computing the claim probabilities for each hypothetical employee or dependent and computing total claim costs.

Four possible funding designs are tested:

- I) The first is a pure self funded approach where the plan sponsor assumes all claim liabilities.
- II) The second assume that large claims are covered by Individual Stop-Loss Insurance of **\$ 10,000**
- III) The third assume that large claims are covered by Individual Stop-Loss Insurance of **\$ 5,000**

## Simulation Results

	No Stop Loss	10000	5000
<b>Range of Claims overrun (ie excess over expected claims) ALL NUMBERS ARE IN % OF TOTAL PAYROLL</b>			
Minimum	-1.47%	-1.47%	-1.47%
Maximum	8.44%	2.13%	1.73%
Standard Deviation	0.75%	0.50%	0.42%
90.0% percentile	0.87%	0.53%	0.30%
95.0% percentile	1.32%	0.77%	0.48%
99.0% percentile	2.36%	1.21%	0.83%
99.5% percentile	2.90%	1.38%	0.93%
100.0% Worst case	8.44%	2.13%	1.73%

**S3I**

**8**

**74**

**90**

### S3I Interpretation

*Less than 70*

*70-90*

*Over 90*

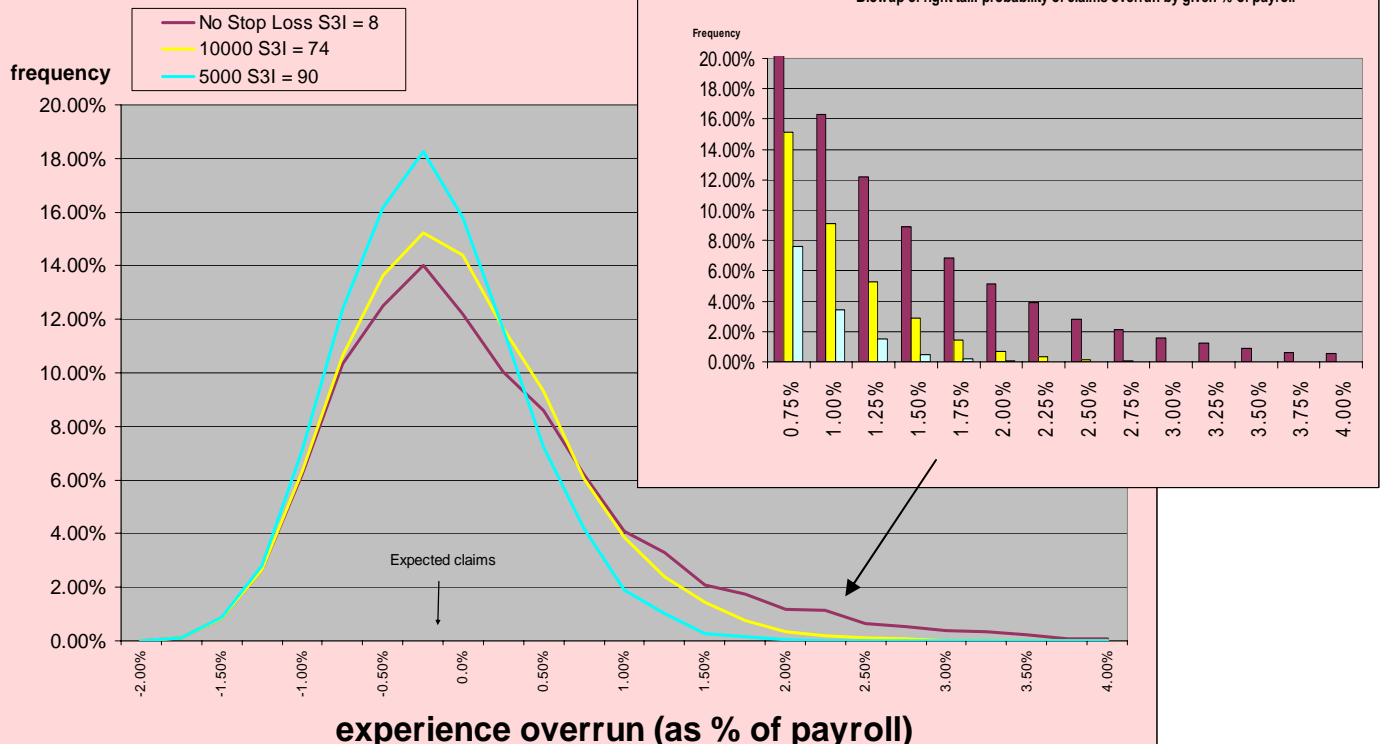
### Self funding suitability

-----> *Would be inappropriate for most plan sponsors*

-----> *Might be appropriate for plan sponsors with the inclination and resources to assume significant risk*

-----> *Would be manageable for most plan sponsors*

## Annual health and dental claims frequency distribution



How often would self-funded claims cause salary and benefit costs to exceed budget by	No Stop Loss	10000	5000
Less than 0.5% higher than budgeted	77.49%	84.83%	92.37%
From 0.5% up to 1.0% higher	10.29%	9.91%	6.10%
From 1.0% up to 2.0% higher	8.29%	4.90%	1.51%
From 2.0% up to 3.0% higher	2.71%	0.36%	0.02%
From 3.0% up to 4.0% higher	0.74%	0.00%	0.00%
From 4.0% up to 5.0% higher	0.21%	0.00%	0.00%
From 5.0% up to 6.0% higher	0.03%	0.00%	0.00%
From 6.0% and higher	0.24%	0.00%	0.00%
Total	100.00%	100.00%	100.00%

## Review of the S3I and Recommendations

Based on our evaluation, a self-funding arrangement with a of no more than \$5000 attachment point would provided the Plan sponsor can handle a 1.73% experience overrun (as % of total payroll) in health/dental cl the Plan Sponsor's solvency. A higher maximum of up to \$10000 stop-loss level could also be used but that

## Assumptions and Limitations

1. The Index assumes unlimited coverage for drugs up to \$1 million. Lower limits would reduce the reporter
2. This report is only intended to be a guide for advising plan sponsors to make benefits-related decisions a
3. The Index is based on current claim patterns. The introduction of new drugs or medical technology or the volatility in the future.
4. Other factors, such as changes in competition, environmental, hiring practices may affect future outcome
5. This report is not a substitute for a professional actuarial opinion regarding appropriate provisions for funi be consulted if these are required.
6. Stop-loss insurance involves premium costs which are not illustrated here.
7. It is recommended that a 3SI valuation be made every three (3) years or sooner if there are significant cl