



1 **2014 11 07 a:**

2 Transcript page 5, lines 6 to 11, Mr. Johnson Q.C. “*And I’m just wondering, how much impact would*  
 3 *there be if you didn’t start in the second half of 2004 and instead you said well, let’s take it from the*  
 4 *first half of 2003? Would you expect there to be a significant impact from there?” Lines 18 to 19*  
 5 *Mr. Johnson Q.C. “Okay. So would it be a big undertaking to determine what sort of impact it would*  
 6 *make?”* **Undertaking is to provide regression results for BI where the period change is at 2002**  
 7 **H2/2003 H1. Compare regression statistics with the selected trend structure results.**

8 **FA Response:**

9 As per requested, we’ve attached the results of regressions where the only change from our selected TPL  
 10 frequency and severity trend models are that the second period starts at 2003 H1, rather than 2004 H2.

11 **Bodily Injury (BI)**

12 For both BI frequency and severity, in comparison to our selected models for the “second period”, the  
 13 trends were lower (loss cost trend decreased from 4.4% to 0.8%) but the R<sup>2</sup> and adjusted R<sup>2</sup> fit measures  
 14 also decreased, as summarized and discussed below. As indicated, outlier exclusions would likely  
 15 change with the new period selection – with the outlier exclusions updated, the loss cost trend is 3.2%.

16 **BI FREQUENCY**

**FITTED MODEL RESULTS**

Model	Frequency						Model Description
	R <sup>2</sup>	Adj R <sup>2</sup>	df	F	Past	Future	
refine 1	64.5%	52.2%	39	5.259	(2.3%)	(2.3%)	By reform period (Aug 1, 2004), no seasonality
freq 07a	61.6%	48.3%	39	4.646	(4.2%)	(4.2%)	As per Undertaking 07a (freq) - only change from filing is that second period starts at 2003-H1, not 2004-H2

17

18 We did not make any adjustments related to outliers. That is, we did not exclude any data for frequency  
 19 (as per our selected frequency model). However, with the changed periods, the data point 2003-H1  
 20 would be an outlier we’d test with respect to the second period, and it would be deemed influential and  
 21 therefore excluded. The associated statistics are shown below:

**FITTED MODEL RESULTS**

Model	Frequency						Model Description
	R <sup>2</sup>	Adj R <sup>2</sup>	df	F	Past	Future	
freq 07a (2)	67.1%	55.4%	38	5.714	(2.8%)	(2.8%)	As per Undertaking 07a (freq) - only chg from filing is that 2nd period starts at 2003-H1, not 2004-H2 AND 1 data exclusion on freq residuals

22

1 **BI SEVERITY**
**FITTED MODEL RESULTS**

Model	Severity						Model Description
	R <sup>2</sup>	Adj R <sup>2</sup>	df	F	Past	Future	
refine 2	52.1%	35.0%	38	3.045	6.9%	6.9%	All years, excluding 2011-2; 2004 Reform, no seasonality
sev 07a	52.3%	35.3%	38	3.069	5.2%	5.2%	As per Undertaking 07a (sev) - only change from filing is that second period starts at 2003-H1, not 2004-H2

2

3 We did not make any adjustments related to outliers. That is, we excluded 2011-H2 for severity (as per  
 4 our selected severity model). However, with the changed periods, the data point 2011-H2 is not as  
 5 clearly an outlier as with our selected periods and, while we might still exclude it, it is not as clear cut a  
 6 decision, particularly as the fit is better (based on the two R<sup>2</sup> measures) than both the selected model and  
 7 the initial model using the undertaking's periods. The associated statistics if the 2011-H2 data point was  
 8 not excluded are shown below:

**FITTED MODEL RESULTS**

Model	Severity						Model Description
	R <sup>2</sup>	Adj R <sup>2</sup>	df	F	Past	Future	
sev 07a (2)	53.6%	37.6%	39	3.354	6.2%	6.2%	As per Undertaking 07a (sev) - only change from filing is that second period starts at 2003-H1, not 2004-H2, AND no data exclusions

9

10

 11 **Property Damage (PD)**

12 For PD in comparison to our selected models for the "second period", the frequency trend was lower,  
 13 but the second period p-value was such that we would reject the coefficient (i.e. trend) as being other  
 14 than 0.0%. For severity, the trend increased slightly. If the frequency trend was not rejected (as we  
 15 would because of the p-value), the loss cost trend decreases from 2.4% to 0.6%, as summarized and  
 16 discussed below.

## 1 PD FREQUENCY

### FITTED MODEL RESULTS

Model	Frequency						Model Description
	R <sup>2</sup>	Adj R <sup>2</sup>	df	F	Past	Future	
	<b>C68</b>	<b>D68</b>	<b>k70</b>	<b>n68</b>	<b>K77</b>	<b>K78</b>	<b>D6</b>
refine f2	87.1%	82.4%	38	18.838	0.3%	0.3%	Trend on All years, excluding 2004-2; 2004 Reform, seasonality
freq 07a	84.6%	79.1%	38	15.376	(1.6%)	(1.6%)	As per Undertaking 07a (freq) - only change from filing is that second period starts at 2003-H1, not 2004-H2

2

3 We did not make any adjustments related to outliers. That is, we excluded data point 2004-H2 for

4 frequency (as per our selected frequency model). While the R<sup>2</sup> fit measures are down slightly, the p-

5 value for the second period (8.8%) would move us to reject this model.

## 6 PD SEVERITY

### FITTED MODEL RESULTS

Model	Severity						Model Description
	R <sup>2</sup>	Adj R <sup>2</sup>	df	F	Past	Future	
	<b>87.0%</b>	<b>82.5%</b>	<b>39</b>	<b>19.355</b>	<b>2.1%</b>	<b>2.1%</b>	<b>By reform period (Aug 1, 2004)</b>
by reform yr	87.0%	82.5%	39	19.355	2.1%	2.1%	As per Undertaking 07a (sev) - only change from filing is that second period starts at 2003-H1, not 2004-H2
sev 07a	87.1%	82.7%	39	19.608	2.2%	2.2%	

7

8 We did not make any adjustments related to outliers. That is, we did not exclude any data for severity

9 (as per our selected severity model).

Facility Association - Trend Analysis - Industry  
Newfoundland & Labrador - non-Private Passenger  
Bodily Injury  
as at: Dec 31, 2012

actual observations:	40
excluded observations:	-
# observations used:	40

Level Options:	Freq	Sev	LC	
At Selected Ultimate Levels	1	R	S	T
At Favourable Levels	2	V	W	X
At Unfavourable Levels	3	Z	AA	AB

MODEL DESCRIPTION As per Undertaking 07a (freq) - only change from filing is that second period starts at 2003-H1, not 2004-H2

Frequency per: 1,000 Earned Car Years

Level Selected: 1

At Selected Ultimate Levels

Trend Type: exponential

Chart Periods	Exclude Data Point (y)?	Xi										Frequency Values			
		Season	All Years	Trend Periods based on average accident date where scalar present								From Valuation	Regress Fit	Residual	Selected Model
				Scalar 1	Trend 1	Scalar 2	Trend 2	Scalar 3	Trend 3	Scalar 4	Trend 4				
		0	1	1	1	0	0	0	0	0	0	=> use "1" to include variable, "0" if not			
'93H1		1	1993.25	-	-	-	-	-	-	-	-	5.9400	5.6714	0.2686	5.6714
'93H2		2	1993.75	-	-	-	-	-	-	-	-	6.5755	5.7922	0.7833	5.7922
'94H1		1	1994.25	-	-	-	-	-	-	-	-	6.9073	5.9155	0.9918	5.9155
'94H2		2	1994.75	-	-	-	-	-	-	-	-	6.3836	6.0414	0.3422	6.0414
'95H1		1	1995.25	-	-	-	-	-	-	-	-	6.7084	6.1700	0.5384	6.1700
'95H2		2	1995.75	-	-	-	-	-	-	-	-	6.0233	6.3014	(0.278)	6.3014
'96H1		1	1996.25	-	-	-	-	-	-	-	-	4.2929	6.4356	(2.143)	6.4356
'96H2		2	1996.75	-	-	-	-	-	-	-	-	5.0785	6.5726	(1.494)	6.5726
'97H1		1	1997.25	-	-	-	-	-	-	-	-	7.9804	6.7125	1.2679	6.7125
'97H2		2	1997.75	-	-	-	-	-	-	-	-	7.5518	6.8554	0.6964	6.8554
'98H1		1	1998.25	-	-	-	-	-	-	-	-	6.6487	7.0013	(0.353)	7.0013
'98H2		2	1998.75	-	-	-	-	-	-	-	-	6.3764	7.1504	(0.774)	7.1504
'99H1		1	1999.25	-	-	-	-	-	-	-	-	6.4756	7.3026	(0.827)	7.3026
'99H2		2	1999.75	-	-	-	-	-	-	-	-	6.4357	7.4581	(1.022)	7.4581
'00H1		1	2000.25	-	-	-	-	-	-	-	-	6.7309	7.6168	(0.886)	7.6168
'00H2		2	2000.75	-	-	-	-	-	-	-	-	9.7971	7.7790	2.0181	7.7790
'01H1		1	2001.25	-	-	-	-	-	-	-	-	11.7625	7.9446	3.8179	7.9446
'01H2		2	2001.75	-	-	-	-	-	-	-	-	7.1216	8.1137	(0.992)	8.1137
'02H1		1	2002.25	-	-	-	-	-	-	-	-	8.9091	8.2865	0.6226	8.2865
'02H2		2	2002.75	-	-	-	-	-	-	-	-	8.1611	8.4629	(0.302)	8.4629
'03H1		1	2003.25	1.00	2003.25	-	-	-	-	-	-	11.3335	7.6451	3.6884	7.6451
'03H2		2	2003.75	1.00	2003.75	-	-	-	-	-	-	7.2318	7.4848	(0.253)	7.4848
'04H1		1	2004.25	1.00	2004.25	-	-	-	-	-	-	7.2623	7.3277	(0.065)	7.3277
'04H2		2	2004.75	1.00	2004.75	-	-	-	-	-	-	6.6125	7.1740	(0.562)	7.1740
'05H1		1	2005.25	1.00	2005.25	-	-	-	-	-	-	6.0936	7.0235	(0.930)	7.0235
'05H2		2	2005.75	1.00	2005.75	-	-	-	-	-	-	6.6266	6.8762	(0.250)	6.8762
'06H1		1	2006.25	1.00	2006.25	-	-	-	-	-	-	6.0930	6.7319	(0.639)	6.7319
'06H2		2	2006.75	1.00	2006.75	-	-	-	-	-	-	5.6662	6.5907	(0.924)	6.5907
'07H1		1	2007.25	1.00	2007.25	-	-	-	-	-	-	5.7501	6.4524	(0.702)	6.4524
'07H2		2	2007.75	1.00	2007.75	-	-	-	-	-	-	6.7651	6.3171	0.4480	6.3171
'08H1		1	2008.25	1.00	2008.25	-	-	-	-	-	-	6.7781	6.1845	0.5936	6.1845
'08H2		2	2008.75	1.00	2008.75	-	-	-	-	-	-	5.7793	6.0548	(0.275)	6.0548
'09H1		1	2009.25	1.00	2009.25	-	-	-	-	-	-	6.0649	5.9278	0.1371	5.9278
'09H2		2	2009.75	1.00	2009.75	-	-	-	-	-	-	6.6783	5.8034	0.8749	5.8034
'10H1		1	2010.25	1.00	2010.25	-	-	-	-	-	-	5.0115	5.6817	(0.670)	5.6817
'10H2		2	2010.75	1.00	2010.75	-	-	-	-	-	-	5.4392	5.5625	(0.123)	5.5625
'11H1		1	2011.25	1.00	2011.25	-	-	-	-	-	-	5.6519	5.4458	0.2061	5.4458
'11H2		2	2011.75	1.00	2011.75	-	-	-	-	-	-	5.8266	5.3315	0.4951	5.3315
'12H1		1	2012.25	1.00	2012.25	-	-	-	-	-	-	4.7648	5.2197	(0.455)	5.2197
'12H2		2	2012.75	1.00	2012.75	-	-	-	-	-	-	5.7188	5.1102	0.6086	5.1102
'13H1		1	2013.25	1.00	2013.25	-	-	-	-	-	-		5.0030		5.0030
'13H2		2	2013.75	1.00	2013.75	-	-	-	-	-	-		4.8980		4.8980
'14H1		1	2014.25	1.00	2014.25	-	-	-	-	-	-		4.7953		4.7953
'14H2		2	2014.75	1.00	2014.75	-	-	-	-	-	-		4.6947		4.6947
'15H1		1	2015.25	1.00	2015.25	-	-	-	-	-	-		4.5962		4.5962
'15H2		2	2015.75	1.00	2015.75	-	-	-	-	-	-		4.4998		4.4998
'16H1		1	2016.25	1.00	2016.25	-	-	-	-	-	-		4.4054		4.4054
'16H2		2	2016.75	1.00	2016.75	-	-	-	-	-	-		4.3130		4.3130
'17H1		1	2017.25	1.00	2017.25	-	-	-	-	-	-		4.2225		4.2225

Facility Association - Trend Analysis - Industry  
Newfoundland & Labrador - non-Private Passenger  
Bodily Injury  
as at: Dec 31, 2012

actual observations:	40
excluded observations:	-
# observations used:	40

Level Options:	Freq	Sev	LC	
At Selected Ultimate Levels	1	R	S	T
At Favourable Levels	2	V	W	X
At Unfavourable Levels	3	Z	AA	AB

MODEL DESCRIPTION As per Undertaking 07a (freq) - only change from filing is that second period starts at 2003-H1, not 2004-H2

REGRESSION STATISTICS						
Multiple R	R2	Adjusted R2	S.E. of Estimate	# of Obs. n	# of Obs. Excluded	k
0.7847	0.6157	0.4832	0.1472	40	-	11

Runs-Test Result: 1.0966 RESIDUALS RUNS RANDOM

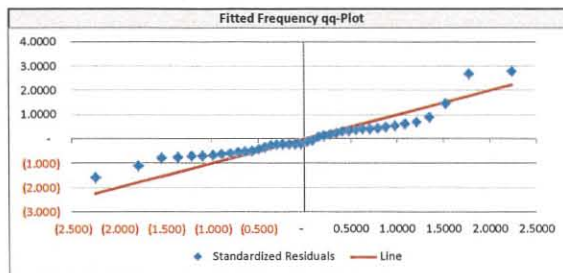
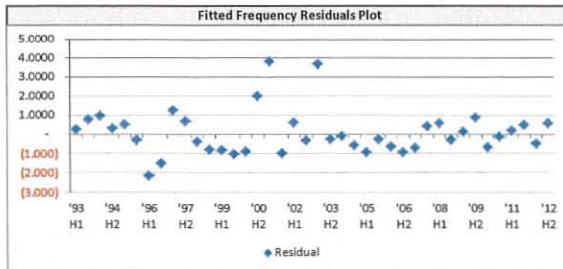
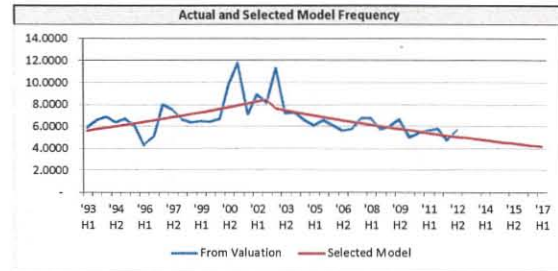
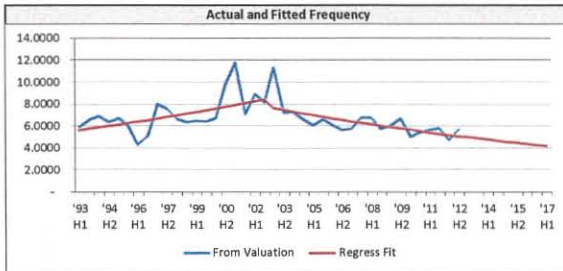
Coefficients	S.E.		t-Stat	p-value	C.I.		99% Upper	Selected Coeff.
	1	2			Lower	Upper		
Intercept	(82.243)	22.8066	(3.606)	0.0012	(145.106)	(19.379)	(82.243)	11
Season	-	-	-	1.0000	-	-	-	10
All Years	0.0421	0.0114	3.6910	0.0009	0.0107	0.0736	0.0421	9
Scalar 1	169.2214	32.3342	5.2335	0.0000	80.0959	258.3468	169.2214	8
Trend 1	(0.085)	0.0161	(5.237)	0.0000	(0.129)	(0.040)	(0.085)	7
Scalar 2	-	-	-	1.0000	-	-	-	6
Trend 2	-	-	-	1.0000	-	-	-	5
Scalar 3	-	-	-	1.0000	-	-	-	4
Trend 3	-	-	-	1.0000	-	-	-	3
Scalar 4	-	-	-	1.0000	-	-	-	2
Trend 4	-	-	-	1.0000	-	-	-	1

Trends are Annual

ANOVA					
	df	SS	MS	F	Significance F
Regression	10	1.0064	0.1006	4.6458	0.0006
Residual	29	0.6282	0.0217		
Total	39	1.6345			

	Fitted Annual	Previous Selected	Selected Annual	
past	(4.2%)	(3.10%)	(4.2%)	'12H2 => last period in "past"
future	(4.2%)	(3.10%)	(4.2%)	

selected = fitted



Facility Association - Trend Analysis - Industry  
Newfoundland & Labrador - non-Private Passenger  
Bodily Injury  
as at: Dec 31, 2012

actual observations:	40
excluded observations:	1
# observations used:	39

	Level Options:	Freq	Sev	LC
At Selected Ultimate Levels	1	R	S	T
At Favourable Levels	2	V	W	X
At Unfavourable Levels	3	Z	AA	AB

MODEL DESCRIPTION As per Undertaking 07a (freq) - only chg from filing is that 2nd period starts at 2003-H1, not 2004-H2 AND 1 data exclusion on freq residuals

Frequency per: 1,000 Earned Car Years

Level Selected: 1  
Trend Type: exponential

At Selected Ultimate Levels

Chart Periods	Exclude Data Point (y)?	Trend Periods based on average accident date where scalar present										Frequency Values			
		Season	All Years	Scalar 1	Trend 1	Scalar 2	Trend 2	Scalar 3	Trend 3	Scalar 4	Trend 4	From Valuation	Regress Fit	Residual	Selected Model
		0	1	1	1	0	0	0	0	0	0	=> use "1" to include variable, "0" if not			
'93H1		1	1993.25	-	-	-	-	-	-	-	-	5.9400	5.6714	0.2686	5.6714
'93H2		2	1993.75	-	-	-	-	-	-	-	-	6.5755	5.7922	0.7833	5.7922
'94H1		1	1994.25	-	-	-	-	-	-	-	-	6.9073	5.9155	0.9918	5.9155
'94H2		2	1994.75	-	-	-	-	-	-	-	-	6.3836	6.0414	0.3422	6.0414
'95H1		1	1995.25	-	-	-	-	-	-	-	-	6.7084	6.1700	0.5384	6.1700
'95H2		2	1995.75	-	-	-	-	-	-	-	-	6.0233	6.3014	(0.278)	6.3014
'96H1		1	1996.25	-	-	-	-	-	-	-	-	4.2929	6.4356	(2.143)	6.4356
'96H2		2	1996.75	-	-	-	-	-	-	-	-	5.0785	6.5726	(1.494)	6.5726
'97H1		1	1997.25	-	-	-	-	-	-	-	-	7.9804	6.7125	1.2679	6.7125
'97H2		2	1997.75	-	-	-	-	-	-	-	-	7.5518	6.8554	0.6964	6.8554
'98H1		1	1998.25	-	-	-	-	-	-	-	-	6.6487	7.0013	(0.353)	7.0013
'98H2		2	1998.75	-	-	-	-	-	-	-	-	6.3764	7.1504	(0.774)	7.1504
'99H1		1	1999.25	-	-	-	-	-	-	-	-	6.4756	7.3026	(0.827)	7.3026
'99H2		2	1999.75	-	-	-	-	-	-	-	-	6.4357	7.4581	(1.022)	7.4581
'00H1		1	2000.25	-	-	-	-	-	-	-	-	6.7309	7.6168	(0.886)	7.6168
'00H2		2	2000.75	-	-	-	-	-	-	-	-	9.7971	7.7790	2.0181	7.7790
'01H1		1	2001.25	-	-	-	-	-	-	-	-	11.7625	7.9446	3.8179	7.9446
'01H2		2	2001.75	-	-	-	-	-	-	-	-	7.1216	8.1137	(0.992)	8.1137
'02H1		1	2002.25	-	-	-	-	-	-	-	-	8.9091	8.2865	0.6226	8.2865
'02H2		2	2002.75	-	-	-	-	-	-	-	-	8.1611	8.4629	(0.302)	8.4629
'03H1	y	1	2003.25	1.00	2003.25	-	-	-	-	-	-	11.3335	6.9886	4.3449	6.9886
'03H2		2	2003.75	1.00	2003.75	-	-	-	-	-	-	7.2318	6.8894	0.3424	6.8894
'04H1		1	2004.25	1.00	2004.25	-	-	-	-	-	-	7.2623	6.7916	0.4707	6.7916
'04H2		2	2004.75	1.00	2004.75	-	-	-	-	-	-	6.6125	6.6952	(0.083)	6.6952
'05H1		1	2005.25	1.00	2005.25	-	-	-	-	-	-	6.0936	6.6002	(0.507)	6.6002
'05H2		2	2005.75	1.00	2005.75	-	-	-	-	-	-	6.6266	6.5065	0.1201	6.5065
'06H1		1	2006.25	1.00	2006.25	-	-	-	-	-	-	6.0930	6.4142	(0.321)	6.4142
'06H2		2	2006.75	1.00	2006.75	-	-	-	-	-	-	5.6662	6.3231	(0.657)	6.3231
'07H1		1	2007.25	1.00	2007.25	-	-	-	-	-	-	5.7501	6.2334	(0.483)	6.2334
'07H2		2	2007.75	1.00	2007.75	-	-	-	-	-	-	6.7651	6.1449	0.6202	6.1449
'08H1		1	2008.25	1.00	2008.25	-	-	-	-	-	-	6.7781	6.0577	0.7204	6.0577
'08H2		2	2008.75	1.00	2008.75	-	-	-	-	-	-	5.7793	5.9717	(0.192)	5.9717
'09H1		1	2009.25	1.00	2009.25	-	-	-	-	-	-	6.0649	5.8870	0.1779	5.8870
'09H2		2	2009.75	1.00	2009.75	-	-	-	-	-	-	6.6783	5.8034	0.8749	5.8034
'10H1		1	2010.25	1.00	2010.25	-	-	-	-	-	-	5.0115	5.7210	(0.710)	5.7210
'10H2		2	2010.75	1.00	2010.75	-	-	-	-	-	-	5.4392	5.6398	(0.201)	5.6398
'11H1		1	2011.25	1.00	2011.25	-	-	-	-	-	-	5.6519	5.5598	0.0921	5.5598
'11H2		2	2011.75	1.00	2011.75	-	-	-	-	-	-	5.8266	5.4809	0.3457	5.4809
'12H1		1	2012.25	1.00	2012.25	-	-	-	-	-	-	4.7648	5.4031	(0.638)	5.4031
'12H2		2	2012.75	1.00	2012.75	-	-	-	-	-	-	5.7188	5.3264	0.3924	5.3264
'13H1		1	2013.25	1.00	2013.25	-	-	-	-	-	-		5.2508		5.2508
'13H2		2	2013.75	1.00	2013.75	-	-	-	-	-	-		5.1763		5.1763
'14H1		1	2014.25	1.00	2014.25	-	-	-	-	-	-		5.1028		5.1028
'14H2		2	2014.75	1.00	2014.75	-	-	-	-	-	-		5.0304		5.0304
'15H1		1	2015.25	1.00	2015.25	-	-	-	-	-	-		4.9590		4.9590
'15H2		2	2015.75	1.00	2015.75	-	-	-	-	-	-		4.8886		4.8886
'16H1		1	2016.25	1.00	2016.25	-	-	-	-	-	-		4.8192		4.8192
'16H2		2	2016.75	1.00	2016.75	-	-	-	-	-	-		4.7508		4.7508
'17H1		1	2017.25	1.00	2017.25	-	-	-	-	-	-		4.6834		4.6834

Facility Association - Trend Analysis - Industry  
Newfoundland & Labrador - non-Private Passenger  
Bodily Injury  
as at: Dec 31, 2012

actual observations:	40
excluded observations:	1
# observations used:	39

	Level Options:	Freq	Sev	LC
At Selected Ultimate Levels	1	R	S	T
At Favourable Levels	2	V	W	X
At Unfavourable Levels	3	Z	AA	AB

MODEL DESCRIPTION As per Undertaking 07a (freq) - only chg from filing is that 2nd period starts at 2003-H1, not 2004-H2 AND 1 data exclusion on freq residuals

REGRESSION STATISTICS						
Multiple R	R2	Adjusted R2	S.E. of Estimate	# of Obs. n	# of Obs. Excluded	k
0.8192	0.6711	0.5537	0.1251	39	1	11

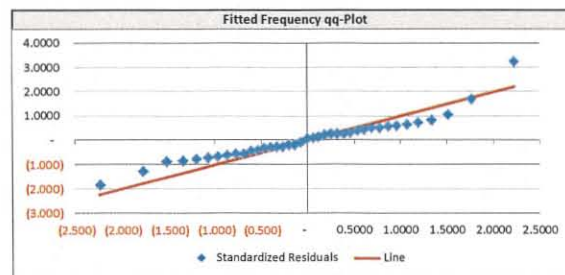
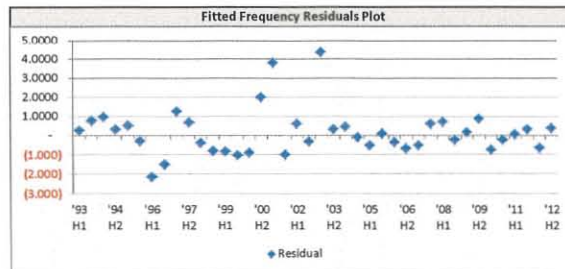
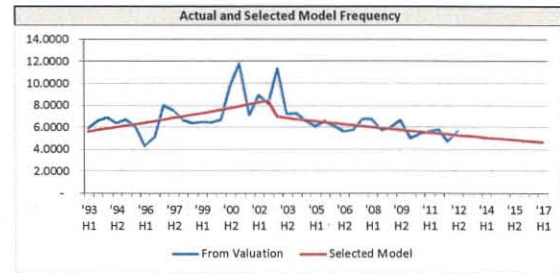
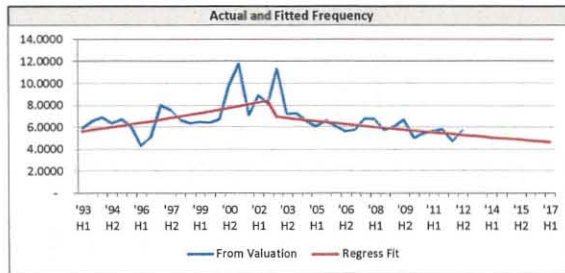
Runs-Test Result: 0.4780 RESIDUALS RUNS RANDOM

Coefficients	S.E.	t-Stat	p-value	C.I.		99% Upper	Selected Coeff.	
				Lower	Upper			
Intercept	(82.243)	19.3778	(4.244)	0.0002	(135.788)	(28.697)	(82.243)	11
Season	-	-	-	1.0000	-	-	-	10
All Years	0.0421	0.0097	4.3441	0.0002	0.0153	0.0689	0.0421	9
Scalar 1	141.4591	28.6022	4.9457	0.0000	62.4237	220.4944	141.4591	8
Trend 1	(0.071)	0.0143	(4.954)	0.0000	(0.110)	(0.031)	(0.071)	7
Scalar 2	-	-	-	1.0000	-	-	-	6
Trend 2	-	-	-	1.0000	-	-	-	5
Scalar 3	-	-	-	1.0000	-	-	-	4
Trend 3	-	-	-	1.0000	-	-	-	3
Scalar 4	-	-	-	1.0000	-	-	-	2
Trend 4	-	-	-	1.0000	-	-	-	1

Trends are Annual

ANOVA				
	df	SS	MS	Significance F
Regression	10	0.8935	0.0894	5.7140
Residual	28	0.4379	0.0156	0.0001
Total	38	1.3314		

	Fitted Annual	Previous Selected	Selected Annual	
				selected = fitted
past	(2.8%)	(3.10%)	(2.8%)	'12H2 => last period in "past"
future	(2.8%)	(3.10%)	(2.8%)	



Facility Association - Trend Analysis - Industry  
Newfoundland & Labrador - non-Private Passenger  
Bodily Injury  
as at: Dec 31, 2012

actual observations:	40
excluded observations:	1
# observations used:	39

Level Options:	Freq	Sev	LC
At Selected Ultimate Levels	1	R	S
At Favourable Levels	2	V	W
At Unfavourable Levels	3	Z	AA

MODEL DESCRIPTION As per Undertaking 07a (sev) - only change from filing is that second period starts at 2003-H1, not 2004-H2

Severity in: \$ Severity in: \$1s

Level Selected: 1

At Selected Ultimate Levels

Chart Periods	Exclude Data Point (y)?	Xi										Severity Values				
		Season	All Years	Trend Periods based on average accident date where scalar present								From Valuation	Regress Fit	Residual	Selected Model	
				Scalar 1	Trend 1	Scalar 2	Trend 2	Scalar 3	Trend 3	Scalar 4	Trend 4					
		0	1	1	1	0	0	0	0	0	0					
'93H1		1	1993.25	-	-	-	-	-	-	-	-	57,804	42,641	15,163	42,641	
'93H2		2	1993.75	-	-	-	-	-	-	-	-	64,868	42,536	22,332	42,536	
'94H1		1	1994.25	-	-	-	-	-	-	-	-	30,189	42,432	(12,243)	42,432	
'94H2		2	1994.75	-	-	-	-	-	-	-	-	42,515	42,328	187	42,328	
'95H1		1	1995.25	-	-	-	-	-	-	-	-	29,910	42,225	(12,315)	42,225	
'95H2		2	1995.75	-	-	-	-	-	-	-	-	38,276	42,121	(3,845)	42,121	
'96H1		1	1996.25	-	-	-	-	-	-	-	-	70,154	42,018	28,136	42,018	
'96H2		2	1996.75	-	-	-	-	-	-	-	-	45,159	41,915	3,244	41,915	
'97H1		1	1997.25	-	-	-	-	-	-	-	-	39,711	41,813	(2,102)	41,813	
'97H2		2	1997.75	-	-	-	-	-	-	-	-	34,561	41,710	(7,149)	41,710	
'98H1		1	1998.25	-	-	-	-	-	-	-	-	21,842	41,608	(19,766)	41,608	
'98H2		2	1998.75	-	-	-	-	-	-	-	-	36,536	41,506	(4,970)	41,506	
'99H1		1	1999.25	-	-	-	-	-	-	-	-	40,300	41,405	(1,105)	41,405	
'99H2		2	1999.75	-	-	-	-	-	-	-	-	45,089	41,303	3,786	41,303	
'00H1		1	2000.25	-	-	-	-	-	-	-	-	38,410	41,202	(2,792)	41,202	
'00H2		2	2000.75	-	-	-	-	-	-	-	-	38,674	41,101	(2,427)	41,101	
'01H1		1	2001.25	-	-	-	-	-	-	-	-	30,353	41,001	(10,648)	41,001	
'01H2		2	2001.75	-	-	-	-	-	-	-	-	75,498	40,900	34,598	40,900	
'02H1		1	2002.25	-	-	-	-	-	-	-	-	67,013	40,800	26,213	40,800	
'02H2		2	2002.75	-	-	-	-	-	-	-	-	31,279	40,700	(9,421)	40,700	
'03H1		1	2003.25	1.00	2003.25	-	-	-	-	-	-	31,508	34,902	(3,394)	34,902	
'03H2		2	2003.75	1.00	2003.75	-	-	-	-	-	-	45,061	35,802	9,259	35,802	
'04H1		1	2004.25	1.00	2004.25	-	-	-	-	-	-	45,126	36,726	8,400	36,726	
'04H2		2	2004.75	1.00	2004.75	-	-	-	-	-	-	33,516	37,673	(4,157)	37,673	
'05H1		1	2005.25	1.00	2005.25	-	-	-	-	-	-	29,849	38,645	(8,796)	38,645	
'05H2		2	2005.75	1.00	2005.75	-	-	-	-	-	-	40,038	39,641	397	39,641	
'06H1		1	2006.25	1.00	2006.25	-	-	-	-	-	-	38,723	40,664	(1,941)	40,664	
'06H2		2	2006.75	1.00	2006.75	-	-	-	-	-	-	41,898	41,713	185	41,713	
'07H1		1	2007.25	1.00	2007.25	-	-	-	-	-	-	39,403	42,789	(3,386)	42,789	
'07H2		2	2007.75	1.00	2007.75	-	-	-	-	-	-	58,241	43,892	14,349	43,892	
'08H1		1	2008.25	1.00	2008.25	-	-	-	-	-	-	46,080	45,024	1,056	45,024	
'08H2		2	2008.75	1.00	2008.75	-	-	-	-	-	-	48,559	46,186	2,373	46,186	
'09H1		1	2009.25	1.00	2009.25	-	-	-	-	-	-	38,754	47,377	(8,623)	47,377	
'09H2		2	2009.75	1.00	2009.75	-	-	-	-	-	-	46,228	48,599	(2,371)	48,599	
'10H1		1	2010.25	1.00	2010.25	-	-	-	-	-	-	47,305	49,852	(2,547)	49,852	
'10H2		2	2010.75	1.00	2010.75	-	-	-	-	-	-	54,533	51,138	3,395	51,138	
'11H1		1	2011.25	1.00	2011.25	-	-	-	-	-	-	45,297	52,457	(7,160)	52,457	
'11H2	Y	2	2011.75	1.00	2011.75	-	-	-	-	-	-	81,796	53,810	27,986	53,810	
'12H1		1	2012.25	1.00	2012.25	-	-	-	-	-	-	61,639	55,198	6,441	55,198	
'12H2		2	2012.75	1.00	2012.75	-	-	-	-	-	-	61,200	56,621	4,579	56,621	
'13H1		1	2013.25	1.00	2013.25	-	-	-	-	-	-	-	58,082	-	-	58,082
'13H2		2	2013.75	1.00	2013.75	-	-	-	-	-	-	-	59,580	-	-	59,580
'14H1		1	2014.25	1.00	2014.25	-	-	-	-	-	-	-	61,117	-	-	61,117
'14H2		2	2014.75	1.00	2014.75	-	-	-	-	-	-	-	62,693	-	-	62,693
'15H1		1	2015.25	1.00	2015.25	-	-	-	-	-	-	-	64,310	-	-	64,310
'15H2		2	2015.75	1.00	2015.75	-	-	-	-	-	-	-	65,969	-	-	65,969
'16H1		1	2016.25	1.00	2016.25	-	-	-	-	-	-	-	67,670	-	-	67,670
'16H2		2	2016.75	1.00	2016.75	-	-	-	-	-	-	-	69,415	-	-	69,415
'17H1		1	2017.25	1.00	2017.25	-	-	-	-	-	-	-	71,206	-	-	71,206



Facility Association - Trend Analysis - Industry  
Newfoundland & Labrador - non-Private Passenger  
Bodily Injury  
as at: Dec 31, 2012

actual observations:	40
excluded observations:	1
# observations used:	39

Level Options:	Freq	Sev	LC
At Selected Ultimate Levels	1	R	S
At Favourable Levels	2	V	W
At Unfavourable Levels	3	Z	AA

MODEL DESCRIPTION As per Undertaking 07a (sev) - only change from filing is that second period starts at 2003-H1, not 2004-H2

REGRESSION STATISTICS						
Multiple R	R2	Adjusted R2	S.E. of Estimate	# of Obs. n	# of Obs. Excluded	k
0.7231	0.5229	0.3525	0.2202	39	1	11

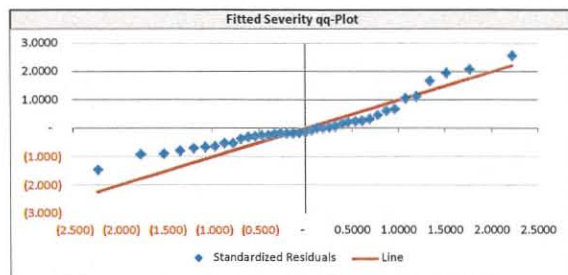
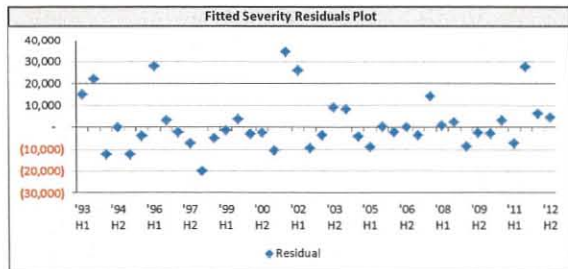
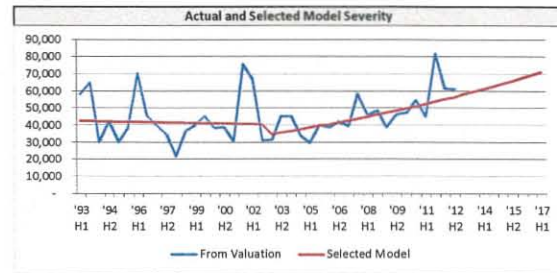
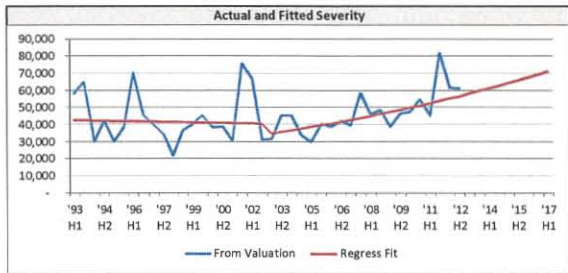
Runs-Test Result: 0.1813 RESIDUALS RUNS RANDOM

	Coefficients		S.E.	t-Stat	p-value	C.I.		99% Upper	Selected Coeff.
	1	2				Lower	Upper		
Intercept	20.4332	34.1198	0.5989	0.5541	(73.849)	114.7153	20.4332	11	
Season	-	-	1.0000	-	-	-	-	10	
All Years	(0.005)	0.0171	(0.287)	0.7761	(0.052)	0.0423	(0.005)	9	
Scalar 1	(111.999)	49.5448	(2.261)	0.0318	(248.904)	24.9061	(111.999)	8	
Trend 1	0.0558	0.0247	2.2574	0.0320	(0.013)	0.1242	0.0558	7	
Scalar 2	-	-	-	1.0000	-	-	-	6	
Trend 2	-	-	-	1.0000	-	-	-	5	
Scalar 3	-	-	-	1.0000	-	-	-	4	
Trend 3	-	-	-	1.0000	-	-	-	3	
Scalar 4	-	-	-	1.0000	-	-	-	2	
Trend 4	-	-	-	1.0000	-	-	-	1	

Trends are Annual

ANOVA					
	df	SS	MS	F	Significance F
Regression	10	1.4880	0.1488	3.0691	0.0093
Residual	28	1.3575	0.0485		
Total	38	2.8455			

	Fitted Annual	Previous Selected	Selected Annual	
				selected = fitted
past	5.2%	5.7%	5.2%	'12H2 => last period in "past"
future	5.2%	5.7%	5.2%	



Facility Association - Trend Analysis - Industry  
Newfoundland & Labrador - non-Private Passenger  
Bodily Injury  
as at: Dec 31, 2012

actual observations:	40
excluded observations:	-
# observations used:	40

Level Options:	Freq	Sev	LC
At Selected Ultimate Levels	1	R	S
At Favourable Levels	2	V	W
At Unfavourable Levels	3	Z	AA

MODEL DESCRIPTION As per Undertaking 07a (sev) - only change from filing is that second period starts at 2003-H1, not 2004-H2, AND no data exclusions

Severity in: \$ Severity in: \$1s

Level Selected: 1

At Selected Ultimate Levels

Chart Periods	Exclude Data Point (y)?	Xi										Severity Values			
		Trend Periods based on average accident date where scalar present										From Valuation	Regress Fit	Residual	Selected Model
		Season	All Years	Scalar 1	Trend 1	Scalar 2	Trend 2	Scalar 3	Trend 3	Scalar 4	Trend 4				
		0	1	1	1	0	0	0	0	0	0				
'93H1		1	1993.25	-	-	-	-	-	-	-	-	57,804	42,641	15,163	42,641
'93H2		2	1993.75	-	-	-	-	-	-	-	-	64,868	42,536	22,332	42,536
'94H1		1	1994.25	-	-	-	-	-	-	-	-	30,189	42,432	(12,243)	42,432
'94H2		2	1994.75	-	-	-	-	-	-	-	-	42,515	42,328	187	42,328
'95H1		1	1995.25	-	-	-	-	-	-	-	-	29,910	42,225	(12,315)	42,225
'95H2		2	1995.75	-	-	-	-	-	-	-	-	38,276	42,121	(3,845)	42,121
'96H1		1	1996.25	-	-	-	-	-	-	-	-	70,154	42,018	28,136	42,018
'96H2		2	1996.75	-	-	-	-	-	-	-	-	45,159	41,915	3,244	41,915
'97H1		1	1997.25	-	-	-	-	-	-	-	-	39,711	41,813	(2,102)	41,813
'97H2		2	1997.75	-	-	-	-	-	-	-	-	34,561	41,710	(7,149)	41,710
'98H1		1	1998.25	-	-	-	-	-	-	-	-	21,842	41,608	(19,766)	41,608
'98H2		2	1998.75	-	-	-	-	-	-	-	-	36,536	41,506	(4,970)	41,506
'99H1		1	1999.25	-	-	-	-	-	-	-	-	40,300	41,405	(1,105)	41,405
'99H2		2	1999.75	-	-	-	-	-	-	-	-	45,089	41,303	3,786	41,303
'00H1		1	2000.25	-	-	-	-	-	-	-	-	38,410	41,202	(2,792)	41,202
'00H2		2	2000.75	-	-	-	-	-	-	-	-	38,674	41,101	(2,427)	41,101
'01H1		1	2001.25	-	-	-	-	-	-	-	-	30,353	41,001	(10,648)	41,001
'01H2		2	2001.75	-	-	-	-	-	-	-	-	75,498	40,900	34,598	40,900
'02H1		1	2002.25	-	-	-	-	-	-	-	-	67,013	40,800	26,213	40,800
'02H2		2	2002.75	-	-	-	-	-	-	-	-	31,279	40,700	(9,421)	40,700
'03H1		1	2003.25	1.00	2003.25	-	-	-	-	-	-	31,508	34,077	(2,569)	34,077
'03H2		2	2003.75	1.00	2003.75	-	-	-	-	-	-	45,061	35,121	9,940	35,121
'04H1		1	2004.25	1.00	2004.25	-	-	-	-	-	-	45,126	36,198	8,928	36,198
'04H2		2	2004.75	1.00	2004.75	-	-	-	-	-	-	33,516	37,307	(3,791)	37,307
'05H1		1	2005.25	1.00	2005.25	-	-	-	-	-	-	29,849	38,451	(8,602)	38,451
'05H2		2	2005.75	1.00	2005.75	-	-	-	-	-	-	40,038	39,629	409	39,629
'06H1		1	2006.25	1.00	2006.25	-	-	-	-	-	-	38,723	40,844	(2,121)	40,844
'06H2		2	2006.75	1.00	2006.75	-	-	-	-	-	-	41,898	42,095	(197)	42,095
'07H1		1	2007.25	1.00	2007.25	-	-	-	-	-	-	39,403	43,385	(3,982)	43,385
'07H2		2	2007.75	1.00	2007.75	-	-	-	-	-	-	58,241	44,715	13,526	44,715
'08H1		1	2008.25	1.00	2008.25	-	-	-	-	-	-	46,080	46,086	(6)	46,086
'08H2		2	2008.75	1.00	2008.75	-	-	-	-	-	-	48,559	47,498	1,061	47,498
'09H1		1	2009.25	1.00	2009.25	-	-	-	-	-	-	38,754	48,954	(10,200)	48,954
'09H2		2	2009.75	1.00	2009.75	-	-	-	-	-	-	46,228	50,454	(4,226)	50,454
'10H1		1	2010.25	1.00	2010.25	-	-	-	-	-	-	47,305	52,001	(4,696)	52,001
'10H2		2	2010.75	1.00	2010.75	-	-	-	-	-	-	54,533	53,594	939	53,594
'11H1		1	2011.25	1.00	2011.25	-	-	-	-	-	-	45,297	55,237	(9,940)	55,237
'11H2		2	2011.75	1.00	2011.75	-	-	-	-	-	-	81,796	56,930	24,866	56,930
'12H1		1	2012.25	1.00	2012.25	-	-	-	-	-	-	61,639	58,675	2,964	58,675
'12H2		2	2012.75	1.00	2012.75	-	-	-	-	-	-	61,200	60,473	727	60,473
'13H1		1	2013.25	1.00	2013.25	-	-	-	-	-	-	62,326	62,326		62,326
'13H2		2	2013.75	1.00	2013.75	-	-	-	-	-	-	64,236	64,236		64,236
'14H1		1	2014.25	1.00	2014.25	-	-	-	-	-	-	66,205	66,205		66,205
'14H2		2	2014.75	1.00	2014.75	-	-	-	-	-	-	68,234	68,234		68,234
'15H1		1	2015.25	1.00	2015.25	-	-	-	-	-	-	70,326	70,326		70,326
'15H2		2	2015.75	1.00	2015.75	-	-	-	-	-	-	72,481	72,481		72,481
'16H1		1	2016.25	1.00	2016.25	-	-	-	-	-	-	74,702	74,702		74,702
'16H2		2	2016.75	1.00	2016.75	-	-	-	-	-	-	76,992	76,992		76,992
'17H1		1	2017.25	1.00	2017.25	-	-	-	-	-	-	79,352	79,352		79,352

Facility Association - Trend Analysis - Industry  
Newfoundland & Labrador - non-Private Passenger  
Bodily Injury  
as at: Dec 31, 2012

actual observations:	40
excluded observations:	-
# observations used:	40

Level Options:	Freq	Sev	LC	
At Selected Ultimate Levels	1	R	S	T
At Favourable Levels	2	V	W	X
At Unfavourable Levels	3	Z	AA	AB

MODEL DESCRIPTION As per Undertaking 07a (sev) - only change from filing is that second period starts at 2003-H1, not 2004-H2, AND no data exclusions

REGRESSION STATISTICS						
Multiple R	R2	Adjusted R2	S.E. of Estimate	# of Obs. n	# of Obs. Excluded	k
0.7323	0.5363	0.3764	0.2281	40	-	11

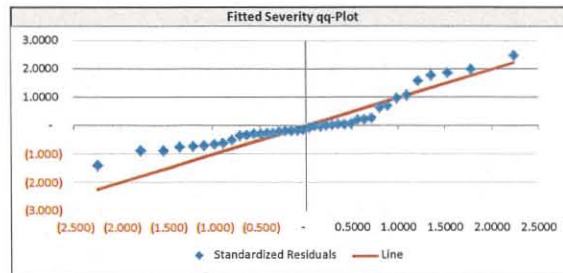
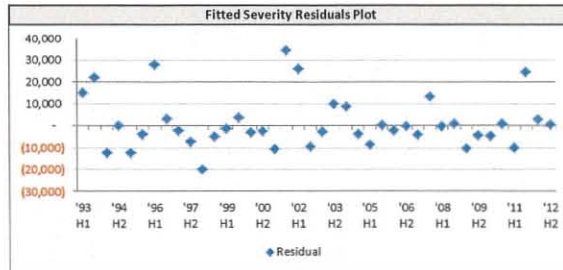
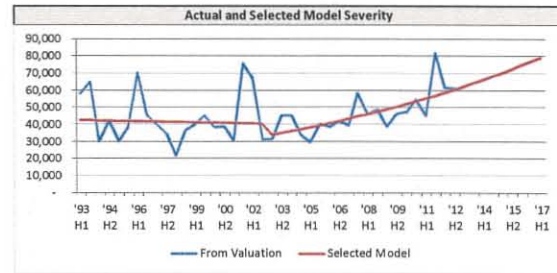
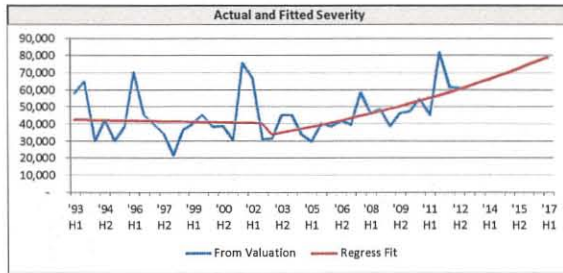
Runs-Test Result: 0.3199 RESIDUALS RUNS RANDOM

ANOVA					
	df	SS	MS	F	Significance F
Regression	10	1.7456	0.1746	3.3540	0.0052
Residual	29	1.5093	0.0520		
Total	39	3.2549			

	Coefficients	S.E.	t-Stat	p-value	C.I. Lower	99% Upper	Selected Coeff.
Intercept	20.4332	35.3510	0.5780	0.5677	(77.008)	117.8743	20.4332 11
Season	-	-	-	1.0000	-	-	- 10
All Years	(0.005)	0.0177	(0.277)	0.7837	(0.054)	0.0439	(0.005) 9
Scalar 1	(130.946)	50.1192	(2.613)	0.0141	(269.093)	7.2021	(130.946) 8
Trend 1	0.0653	0.0250	2.6089	0.0142	(0.004)	0.1342	0.0653 7
Scalar 2	-	-	-	1.0000	-	-	- 6
Trend 2	-	-	-	1.0000	-	-	- 5
Scalar 3	-	-	-	1.0000	-	-	- 4
Trend 3	-	-	-	1.0000	-	-	- 3
Scalar 4	-	-	-	1.0000	-	-	- 2
Trend 4	-	-	-	1.0000	-	-	- 1

Trends are Annual

	Fitted Annual	Previous Selected	Selected Annual	
				selected = fitted
past	6.2%	5.7%	6.2%	'12H2 => last period in "past"
future	6.2%	5.7%	6.2%	



Facility Association - Trend Analysis - Industry  
Newfoundland & Labrador - non-Private Passenger  
PD-Tort  
as at: Dec 31, 2012

actual observations:	40
excluded observations:	1
# observations used:	39

	Level Options:	Freq	Sev	LC
At Selected Ultimate Levels	1	R	S	T
At Favourable Levels	2	V	W	X
At Unfavourable Levels	3	Z	AA	AB

MODEL DESCRIPTION As per Undertaking 07a (freq) - only change from filing is that second period starts at 2003-H1, not 2004-H2

Frequency per: 1,000 Earned Car Years

Level Selected: 1

At Selected Ultimate Levels

Trend Type: exponential

Chart Periods	Exclude Data Point (y)?	Xi										Frequency Values			
		Season	All Years	Trend Periods based on average accident date where scalar present								From Valuation	Regress Fit	Residual	Selected Model
				Scalar 1	Trend 1	Scalar 2	Trend 2	Scalar 3	Trend 3	Scalar 4	Trend 4				
		1	1	1	1	0	0	0	0	0	0	=> use "1" to include variable, "0" if not			
'93H1		1	1993.25	-	-	-	-	-	-	-	-	43.5599	36.9070	6.6529	36.9070
'93H2		2	1993.75	-	-	-	-	-	-	-	-	38.4966	32.9549	5.5417	32.9549
'94H1		1	1994.25	-	-	-	-	-	-	-	-	34.7973	35.4569	(0.660)	35.4569
'94H2		2	1994.75	-	-	-	-	-	-	-	-	36.1738	31.6602	4.5136	31.6602
'95H1		1	1995.25	-	-	-	-	-	-	-	-	38.2084	34.0639	4.1445	34.0639
'95H2		2	1995.75	-	-	-	-	-	-	-	-	25.6341	30.4163	(4.782)	30.4163
'96H1		1	1996.25	-	-	-	-	-	-	-	-	26.3706	32.7255	(6.355)	32.7255
'96H2		2	1996.75	-	-	-	-	-	-	-	-	25.2432	29.2212	(3.978)	29.2212
'97H1		1	1997.25	-	-	-	-	-	-	-	-	33.3215	31.4398	1.8817	31.4398
'97H2		2	1997.75	-	-	-	-	-	-	-	-	25.5703	28.0732	(2.503)	28.0732
'98H1		1	1998.25	-	-	-	-	-	-	-	-	24.2013	30.2046	(6.003)	30.2046
'98H2		2	1998.75	-	-	-	-	-	-	-	-	25.7462	26.9702	(1.224)	26.9702
'99H1		1	1999.25	-	-	-	-	-	-	-	-	26.7911	29.0179	(2.227)	29.0179
'99H2		2	1999.75	-	-	-	-	-	-	-	-	23.3453	25.9106	(2.565)	25.9106
'00H1		1	2000.25	-	-	-	-	-	-	-	-	27.6858	27.8778	(0.192)	27.8778
'00H2		2	2000.75	-	-	-	-	-	-	-	-	27.5993	24.8926	2.7067	24.8926
'01H1		1	2001.25	-	-	-	-	-	-	-	-	37.4263	26.7825	10.6438	26.7825
'01H2		2	2001.75	-	-	-	-	-	-	-	-	22.5169	23.9146	(1.398)	23.9146
'02H1		1	2002.25	-	-	-	-	-	-	-	-	27.2772	25.7303	1.5469	25.7303
'02H2		2	2002.75	-	-	-	-	-	-	-	-	23.9392	22.9750	0.9642	22.9750
'03H1		1	2003.25	1.00	2003.25	-	-	-	-	-	-	30.9196	21.9156	9.0040	21.9156
'03H2		2	2003.75	1.00	2003.75	-	-	-	-	-	-	20.2490	19.8052	0.4438	19.8052
'04H1		1	2004.25	1.00	2004.25	-	-	-	-	-	-	19.5441	21.5663	(2.022)	21.5663
'04H2	y	2	2004.75	1.00	2004.75	-	-	-	-	-	-	14.6492	19.4896	(4.840)	19.4896
'05H1		1	2005.25	1.00	2005.25	-	-	-	-	-	-	18.0743	21.2226	(3.148)	21.2226
'05H2		2	2005.75	1.00	2005.75	-	-	-	-	-	-	18.1729	19.1789	(1.006)	19.1789
'06H1		1	2006.25	1.00	2006.25	-	-	-	-	-	-	20.1378	20.8843	(0.747)	20.8843
'06H2		2	2006.75	1.00	2006.75	-	-	-	-	-	-	18.4640	18.8733	(0.409)	18.8733
'07H1		1	2007.25	1.00	2007.25	-	-	-	-	-	-	21.1168	20.5515	0.5653	20.5515
'07H2		2	2007.75	1.00	2007.75	-	-	-	-	-	-	19.0208	18.5725	0.4483	18.5725
'08H1		1	2008.25	1.00	2008.25	-	-	-	-	-	-	18.0750	20.2239	(2.149)	20.2239
'08H2		2	2008.75	1.00	2008.75	-	-	-	-	-	-	17.2415	18.2764	(1.035)	18.2764
'09H1		1	2009.25	1.00	2009.25	-	-	-	-	-	-	17.1188	19.9016	(2.783)	19.9016
'09H2		2	2009.75	1.00	2009.75	-	-	-	-	-	-	19.6691	17.9852	1.6839	17.9852
'10H1		1	2010.25	1.00	2010.25	-	-	-	-	-	-	17.7259	19.5844	(1.858)	19.5844
'10H2		2	2010.75	1.00	2010.75	-	-	-	-	-	-	17.8634	17.6985	0.1649	17.6985
'11H1		1	2011.25	1.00	2011.25	-	-	-	-	-	-	21.9796	19.2722	2.7074	19.2722
'11H2		2	2011.75	1.00	2011.75	-	-	-	-	-	-	19.1776	17.4164	1.7612	17.4164
'12H1		1	2012.25	1.00	2012.25	-	-	-	-	-	-	18.3431	18.9651	(0.622)	18.9651
'12H2		2	2012.75	1.00	2012.75	-	-	-	-	-	-	18.5969	17.1388	1.4581	17.1388
'13H1		1	2013.25	1.00	2013.25	-	-	-	-	-	-		18.6628		18.6628
'13H2		2	2013.75	1.00	2013.75	-	-	-	-	-	-		16.8657		16.8657
'14H1		1	2014.25	1.00	2014.25	-	-	-	-	-	-		18.3654		18.3654
'14H2		2	2014.75	1.00	2014.75	-	-	-	-	-	-		16.5969		16.5969
'15H1		1	2015.25	1.00	2015.25	-	-	-	-	-	-		18.0726		18.0726
'15H2		2	2015.75	1.00	2015.75	-	-	-	-	-	-		16.3323		16.3323
'16H1		1	2016.25	1.00	2016.25	-	-	-	-	-	-		17.7846		17.7846
'16H2		2	2016.75	1.00	2016.75	-	-	-	-	-	-		16.0720		16.0720
'17H1		1	2017.25	1.00	2017.25	-	-	-	-	-	-		17.5011		17.5011

Facility Association - Trend Analysis - Industry  
Newfoundland & Labrador - non-Private Passenger  
PD-Tort  
as at: Dec 31, 2012

actual observations:	40
excluded observations:	1
# observations used:	39

Level Options:	Freq	Sev	LC	
At Selected Ultimate Levels	1	R	S	T
At Favourable Levels	2	V	W	X
At Unfavourable Levels	3	Z	AA	AB

MODEL DESCRIPTION As per Undertaking 07a (freq) - only change from filing is that second period starts at 2003-H1, not 2004-H2

REGRESSION STATISTICS						
Multiple R	R2	Adjusted R2	S.E. of Estimate	# of Obs. n	# of Obs. Excluded	k
0.9198	0.8460	0.7909	0.1215	39	1	11

Runs-Test Result: 1.0966 RESIDUALS RUNS RANDOM

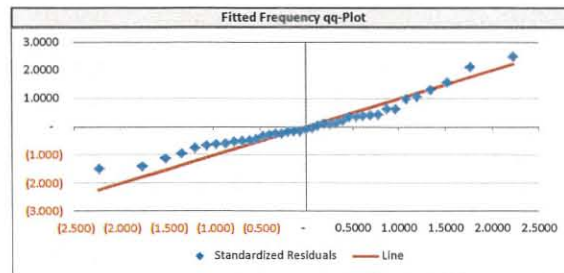
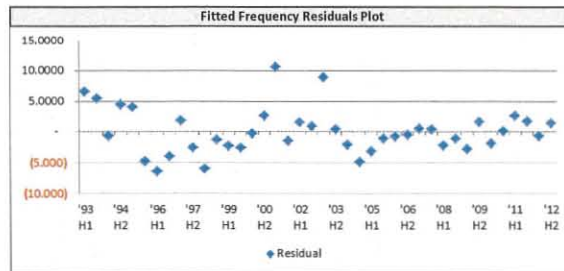
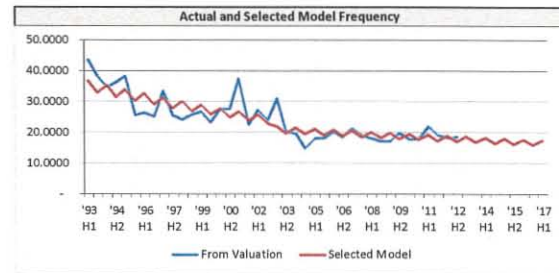
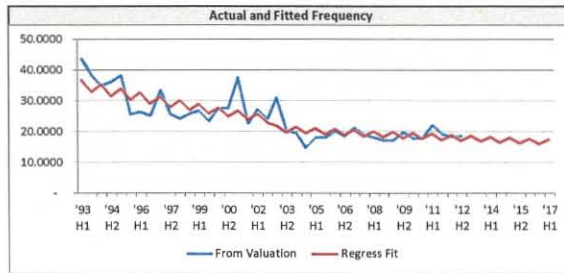
Coefficients	S.E.	t-Stat	p-value	C.I.		99% Upper	Selected Coeff.
				Lower	Upper		
Intercept	83.5939	18.8641	4.4314	0.0001	31.4674	135.7204	83.5939 11
Season	(0.093)	0.0393	(2.375)	0.0246	(0.202)	0.0152	(0.093) 10
All Years	(0.040)	0.0094	(4.244)	0.0002	(0.066)	(0.014)	(0.040) 9
Scalar 1	(48.228)	27.1922	(1.774)	0.0870	(123.367)	26.9112	(48.228) 8
Trend 1	0.0240	0.0136	1.7692	0.0878	(0.013)	0.0615	0.0240 7
Scalar 2	-	-	-	1.0000	-	-	- 6
Trend 2	-	-	-	1.0000	-	-	- 5
Scalar 3	-	-	-	1.0000	-	-	- 4
Trend 3	-	-	-	1.0000	-	-	- 3
Scalar 4	-	-	-	1.0000	-	-	- 2
Trend 4	-	-	-	1.0000	-	-	- 1

ANOVA				
	df	SS	MS	Significance F
Regression	10	2.2707	0.2271	15.3762
Residual	28	0.4135	0.0148	0.0000
Total	38	2.6842		

	Fitted Annual	Previous Selected	Selected Annual
selected = fitted			
past	(1.6%)	0.30%	(1.6%)
future	(1.6%)	0.00%	(1.6%)

'12H2 => last period in "past"

Trends are Annual



Facility Association - Trend Analysis - Industry  
Newfoundland & Labrador - non-Private Passenger  
PD-Tort  
as at: Dec 31, 2012

actual observations:	40
excluded observations:	-
# observations used:	40

Level Options:	Freq	Sev	LC
At Selected Ultimate Levels 1	R	S	T
At Favourable Levels 2	V	W	X
At Unfavourable Levels 3	Z	AA	AB

MODEL DESCRIPTION As per Undertaking 07a (sev) - only change from filing is that second period starts at 2003-H1, not 2004-H2

Severity in: \$ Severity in: \$1s

Level Selected: 1

At Selected Ultimate Levels

Chart Periods	Exclude Data Point (y)?	XI										Severity Values				
		Season	All Years	Trend Periods based on average accident date where scalar present								From Valuation	Regress Fit	Residual	Selected Model	
				Scalar 1	Trend 1	Scalar 2	Trend 2	Scalar 3	Trend 3	Scalar 4	Trend 4					
		1	1	1	1	0	0	0	0	0	0					
'93H1		1	1993.25	-	-	-	-	-	-	-	-	2,088	1,938	150	1,938	
'93H2		2	1993.75	-	-	-	-	-	-	-	-	2,285	2,182	103	2,182	
'94H1		1	1994.25	-	-	-	-	-	-	-	-	2,167	2,065	102	2,065	
'94H2		2	1994.75	-	-	-	-	-	-	-	-	1,957	2,325	(368)	2,325	
'95H1		1	1995.25	-	-	-	-	-	-	-	-	1,876	2,200	(324)	2,200	
'95H2		2	1995.75	-	-	-	-	-	-	-	-	2,771	2,477	294	2,477	
'96H1		1	1996.25	-	-	-	-	-	-	-	-	2,870	2,344	526	2,344	
'96H2		2	1996.75	-	-	-	-	-	-	-	-	2,739	2,639	100	2,639	
'97H1		1	1997.25	-	-	-	-	-	-	-	-	2,263	2,497	(234)	2,497	
'97H2		2	1997.75	-	-	-	-	-	-	-	-	2,770	2,811	(41)	2,811	
'98H1		1	1998.25	-	-	-	-	-	-	-	-	2,269	2,660	(391)	2,660	
'98H2		2	1998.75	-	-	-	-	-	-	-	-	3,272	2,995	277	2,995	
'99H1		1	1999.25	-	-	-	-	-	-	-	-	2,181	2,834	(653)	2,834	
'99H2		2	1999.75	-	-	-	-	-	-	-	-	3,479	3,191	288	3,191	
'00H1		1	2000.25	-	-	-	-	-	-	-	-	3,033	3,019	14	3,019	
'00H2		2	2000.75	-	-	-	-	-	-	-	-	4,232	3,399	833	3,399	
'01H1		1	2001.25	-	-	-	-	-	-	-	-	3,304	3,216	88	3,216	
'01H2		2	2001.75	-	-	-	-	-	-	-	-	3,120	3,621	(501)	3,621	
'02H1		1	2002.25	-	-	-	-	-	-	-	-	3,499	3,427	72	3,427	
'02H2		2	2002.75	-	-	-	-	-	-	-	-	4,047	3,858	189	3,858	
'03H1		1	2003.25	1.00	2003.25	-	-	-	-	-	-	3,827	3,859	(32)	3,859	
'03H2		2	2003.75	1.00	2003.75	-	-	-	-	-	-	4,370	4,255	115	4,255	
'04H1		1	2004.25	1.00	2004.25	-	-	-	-	-	-	3,844	3,942	(98)	3,942	
'04H2		2	2004.75	1.00	2004.75	-	-	-	-	-	-	4,640	4,347	293	4,347	
'05H1		1	2005.25	1.00	2005.25	-	-	-	-	-	-	3,803	4,027	(224)	4,027	
'05H2		2	2005.75	1.00	2005.75	-	-	-	-	-	-	4,607	4,440	167	4,440	
'06H1		1	2006.25	1.00	2006.25	-	-	-	-	-	-	4,146	4,114	32	4,114	
'06H2		2	2006.75	1.00	2006.75	-	-	-	-	-	-	3,663	4,536	(873)	4,536	
'07H1		1	2007.25	1.00	2007.25	-	-	-	-	-	-	4,344	4,203	141	4,203	
'07H2		2	2007.75	1.00	2007.75	-	-	-	-	-	-	4,424	4,634	(210)	4,634	
'08H1		1	2008.25	1.00	2008.25	-	-	-	-	-	-	5,792	4,293	1,499	4,293	
'08H2		2	2008.75	1.00	2008.75	-	-	-	-	-	-	4,073	4,734	(661)	4,734	
'09H1		1	2009.25	1.00	2009.25	-	-	-	-	-	-	3,800	4,386	(586)	4,386	
'09H2		2	2009.75	1.00	2009.75	-	-	-	-	-	-	5,885	4,836	1,049	4,836	
'10H1		1	2010.25	1.00	2010.25	-	-	-	-	-	-	5,272	4,480	792	4,480	
'10H2		2	2010.75	1.00	2010.75	-	-	-	-	-	-	4,166	4,940	(774)	4,940	
'11H1		1	2011.25	1.00	2011.25	-	-	-	-	-	-	4,935	4,577	358	4,577	
'11H2		2	2011.75	1.00	2011.75	-	-	-	-	-	-	5,021	5,046	(25)	5,046	
'12H1		1	2012.25	1.00	2012.25	-	-	-	-	-	-	4,480	4,676	(196)	4,676	
'12H2		2	2012.75	1.00	2012.75	-	-	-	-	-	-	4,950	5,155	(205)	5,155	
'13H1		1	2013.25	1.00	2013.25	-	-	-	-	-	-	-	4,776	-	-	4,776
'13H2		2	2013.75	1.00	2013.75	-	-	-	-	-	-	-	5,266	-	-	5,266
'14H1		1	2014.25	1.00	2014.25	-	-	-	-	-	-	-	4,879	-	-	4,879
'14H2		2	2014.75	1.00	2014.75	-	-	-	-	-	-	-	5,380	-	-	5,380
'15H1		1	2015.25	1.00	2015.25	-	-	-	-	-	-	-	4,984	-	-	4,984
'15H2		2	2015.75	1.00	2015.75	-	-	-	-	-	-	-	5,495	-	-	5,495
'16H1		1	2016.25	1.00	2016.25	-	-	-	-	-	-	-	5,092	-	-	5,092
'16H2		2	2016.75	1.00	2016.75	-	-	-	-	-	-	-	5,614	-	-	5,614
'17H1		1	2017.25	1.00	2017.25	-	-	-	-	-	-	-	5,202	-	-	5,202

Facility Association - Trend Analysis - Industry  
Newfoundland & Labrador - non-Private Passenger  
PD-Tort  
as at: Dec 31, 2012

actual observations:	40
excluded observations:	-
# observations used:	40

Level Options:	Freq	Sev	LC	
At Selected Ultimate Levels	1	R	S	T
At Favourable Levels	2	V	W	X
At Unfavourable Levels	3	Z	AA	AB

MODEL DESCRIPTION As per Undertaking 07a (sev) - only change from filing is that second period starts at 2003-H1, not 2004-H2

REGRESSION STATISTICS						
Multiple R	R2	Adjusted R2	S.E. of Estimate	# of Obs. n	# of Obs. Excluded	k
0.9334	0.8712	0.8267	0.1309	40	-	11

Runs-Test Result: 1.2295 RESIDUALS RUNS RANDOM

Coefficients	S.E.	t-Stat	p-value	C.I. Lower	99% Upper	Selected Coeff.		
1	2							
Intercept	(118.708)	20.3163	(5.843)	0.0000	(174.707)	(62.708)	(118.708)	11
Season	0.0869	0.0415	2.0927	0.0452	(0.028)	0.2015	0.0869	10
All Years	0.0633	0.0102	6.2250	0.0000	0.0353	0.0913	0.0633	9
Scalar 1	84.1691	28.7544	2.9272	0.0066	4.9108	163.4274	84.1691	8
Trend 1	(0.042)	0.0144	(2.925)	0.0066	(0.082)	(0.002)	(0.042)	7
Scalar 2	-	-	-	1.0000	-	-	-	6
Trend 2	-	-	-	1.0000	-	-	-	5
Scalar 3	-	-	-	1.0000	-	-	-	4
Trend 3	-	-	-	1.0000	-	-	-	3
Scalar 4	-	-	-	1.0000	-	-	-	2
Trend 4	-	-	-	1.0000	-	-	-	1

Trends are Annual

ANOVA					
	df	SS	MS	F	Significance F
Regression	10	3.3589	0.3359	19.6077	0.0000
Residual	29	0.4968	0.0171		
Total	39	3.8557			

	Fitted Annual	Previous Selected	Selected Annual
past	2.2%	2.1%	2.2%
future	2.2%	2.1%	2.2%

selected = fitted  
'12H2 => last period in "past"

