

Cumulative claim statistics

	Development year										
Accident year	0	1	2	3	4	5	6	7	8	9	10
1996	7138450	18953748	27625279	38737016	43701495	47771300	49791068	51165274	53399769	56437006	58381675
1997	6313427	18864442	22087237	25350636	26730744	29064550	31432414	31571690	31855323	31906855	
1998	11363995	27694164	33683376	40459951	46634583	58874496	61201817	64276809	72844843		
1999	10173975	21706178	29331035	35771661	39393591	40821868	44376657	47347569			
2000	8342065	23625443	31371610	36892136	41603640	42518021	42610662				
2001	7891927	17862301	22673618	28717798	30373355	31070234					
2002	7364560	11773551	16271975	20600105	28629686						
2003	3801268	9929880	14334441	20822582							
2004	3446162	14296474	15328835								
2005	9401604	16424769									
2006	5830699										

Empirical development factors

	Development year										
Accident year	0	1	2	3	4	5	6	7	8	9	10
1996		265,52 %	145,75 %	140,22 %	112,82 %	109,31 %	104,23 %	102,76 %	104,37 %	105,69 %	103,45 %
1997		298,80 %	117,08 %	114,78 %	105,44 %	108,73 %	108,15 %	100,44 %	100,90 %	100,16 %	
1998		243,70 %	121,63 %	120,12 %	115,26 %	126,25 %	103,95 %	105,02 %	113,33 %		
1999		213,35 %	135,13 %	121,96 %	110,13 %	103,63 %	108,71 %	106,69 %			
2000		283,21 %	132,79 %	117,60 %	112,77 %	102,20 %	100,22 %				
2001		226,34 %	126,94 %	126,66 %	105,76 %	102,29 %					
2002		159,87 %	138,21 %	126,60 %	138,98 %						
2003		261,23 %	144,36 %	145,26 %							
2004		414,85 %	107,22 %								
2005		174,70 %									
2006											

Empirical	Development year										
	0	1	2	3	4	5	6	7	8	9	10
Average		240,75 %	129,14 %	125,32 %	113,48 %	109,49 %	104,73 %	104,05 %	107,54 %	103,62 %	103,45 %
Selected		240,75 %	129,14 %	125,32 %	113,48 %	109,49 %	104,73 %	104,05 %	107,54 %	103,62 %	103,45 %

Tail	Start	gamma
Choose	11	0,00

Please enter here from which delay you want to use a smoothing formula and the factor gamma.
The fomula used here is $\delta(e+1)=1+\gamma*(\delta(e)-1)$.

Convert delta to pi	Development year										
	0	1	2	3	4	5	6	7	8	9	10
delta (incr.)		2,4075	1,2914	1,2532	1,1348	1,0949	1,0473	1,0405	1,0754	1,0362	1,0345
delta (cum.)	100 %	241 %	311 %	390 %	442 %	484 %	507 %	528 %	567 %	588 %	608 %
pi (cum.)	16,44 %	39,59 %	51,13 %	64,07 %	72,71 %	79,61 %	83,37 %	86,75 %	93,29 %	96,67 %	100,00 %
pi (incr.)	16,44 %	23,14 %	11,54 %	12,94 %	8,64 %	6,90 %	3,77 %	3,37 %	6,54 %	3,38 %	3,33 %

Observed claim statistics and predicted future development

Accident year	Exposure	Developed to	Observed	pi(cum.)	Theta(CL)	Outstanding	Ultimate
1996	7411	10	58381675	100 %	7,88E+03	0	58 381 675
1997	7072	9	31906855	97 %	4,67E+03	1 099 425	33 006 280
1998	6812	8	72844843	93 %	1,15E+04	5 240 126	78 084 969
1999	6818	7	47347569	87 %	8,01E+03	7 233 242	54 580 811
2000	5900	6	42610662	83 %	8,66E+03	8 497 357	51 108 019
2001	5630	5	31070234	80 %	6,93E+03	7 958 896	39 029 130
2002	5124	4	28629686	73 %	7,68E+03	10 747 343	39 377 029
2003	4719	3	20822582	64 %	6,89E+03	11 677 394	32 499 976
2004	3898	2	15328835	51 %	7,69E+03	14 654 009	29 982 844
2005	3575	1	16424769	40 %	1,16E+04	25 064 489	41 489 259
2006	3466	0	5830699	16 %	1,02E+04	29 627 422	35 458 122
Total	60425		371198409		7,96E+03	121 799 703	492 998 112

Prediction of future claim development (incremental)

Accident year	Development year											Total
	0	1	2	3	4	5	6	7	8	9	10	
1996	-	-	-	-	-	-	-	-	-	-	-	0
1997	-	-	-	-	-	-	-	-	-	-	1 099 425	1 099 425
1998	-	-	-	-	-	-	-	-	-	2 639 149	2 600 977	5 240 126
1999	-	-	-	-	-	-	-	-	3 570 433	1 844 745	1 818 064	7 233 242
2000	-	-	-	-	-	-	-	1 724 342	3 343 258	1 727 371	1 702 386	8 497 357
2001	-	-	-	-	-	-	1 469 807	1 316 810	2 553 111	1 319 123	1 300 044	7 958 896
2002	-	-	-	-	-	2 717 503	1 482 909	1 328 548	2 575 869	1 330 882	1 311 632	10 747 343
2003	-	-	-	-	2 807 035	2 242 901	1 223 924	1 096 522	2 126 003	1 098 448	1 082 560	11 677 394
2004	-	-	-	3 881 033	2 589 629	2 069 187	1 129 131	1 011 596	1 961 344	1 013 373	998 716	14 654 009
2005	-	-	4 786 761	5 370 443	3 583 443	2 863 273	1 562 454	1 399 813	2 714 042	1 402 272	1 381 990	25 064 489
2006	-	8 206 464	4 090 927	4 589 762	3 062 531	2 447 049	1 335 326	1 196 327	2 319 512	1 198 429	1 181 095	29 627 422
												121 799 703

Prediction of overall claim development (incremental)

Accident year	Development year											Total
	0	1	2	3	4	5	6	7	8	9	10	
1996	7138450	11815298	8671531	11111737	4964479	4069805	2019768	1374206	2234495	3037237	1944669	58381675
1997	6313427	12551015	3222795	3263399	1380108	2333806	2367864	139276	283633	51532	1099425	33006280
1998	11363995	16330169	5989212	6776575	6174632	12239913	2327321	3074992	8568034	2639149	2600977	78084969
1999	10173975	11532203	7624857	6440626	3621930	1428277	3554789	2970912	3570433	1844745	1818064	54580811
2000	8342065	15283378	7746167	5520526	4711504	914381	92641	1724342	3343258	1727371	1702386	51108019
2001	7891927	9970374	4811317	6044180	1655557	696879	1469807	1316810	2553111	1319123	1300044	39029130
2002	7364560	4408991	4498424	4328130	8029581	2717503	1482909	1328548	2575869	1330882	1311632	39377029
2003	3801268	6128612	4404561	6488141	2807035	2242901	1223924	1096522	2126003	1098448	1082560	32499976
2004	3446162	10850312	1032361	3881033	2589629	2069187	1129131	1011596	1961344	1013373	998716	29982844
2005	9401604	7023166	4786761	5370443	3583443	2863273	1562454	1399813	2714042	1402272	1381990	41489259
2006	5830699	8206464	4090927	4589762	3062531	2447049	1335326	1196327	2319512	1198429	1181095	35458122
												492998112