

Cumulative claim statistics

| Cumulative claim statistics | | | | | | | | | | | | |
|-----------------------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| | Development year | | | | | | | | | | | |
| Accident year | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 1996 | 207 | 262 | 271 | 279 | 279 | 282 | 282 | 284 | 283 | 284 | 284 | |
| 1997 | 149 | 215 | 222 | 226 | 227 | 227 | 227 | 223 | 223 | 223 | | |
| 1998 | 170 | 251 | 257 | 259 | 259 | 260 | 258 | 260 | 260 | | | |
| 1999 | 177 | 265 | 259 | 262 | 266 | 264 | 265 | 266 | | | | |
| 2000 | 143 | 191 | 198 | 199 | 199 | 200 | 200 | | | | | |
| 2001 | 126 | 195 | 202 | 206 | 207 | 208 | | | | | | |
| 2002 | 87 | 145 | 153 | 156 | 158 | | | | | | | |
| 2003 | 77 | 122 | 130 | 133 | | | | | | | | |
| 2004 | 79 | 120 | 122 | | | | | | | | | |
| 2005 | 84 | 103 | | | | | | | | | | |
| 2006 | 102 | | | | | | | | | | | |

Empirical development factors

| Empirical development factors | | | | | | | | | | | | |
|-------------------------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----|
| | Development year | | | | | | | | | | | |
| Accident year | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 1996 | | 126,57 % | 103,44 % | 102,95 % | 100,00 % | 101,08 % | 100,00 % | 100,71 % | 99,65 % | 100,35 % | 100,00 % | |
| 1997 | | 144,30 % | 103,26 % | 101,80 % | 100,44 % | 100,00 % | 100,00 % | 98,24 % | 100,00 % | 100,00 % | | |
| 1998 | | 147,65 % | 102,39 % | 100,78 % | 100,00 % | 100,39 % | 99,23 % | 100,78 % | 100,00 % | | | |
| 1999 | | 149,72 % | 97,74 % | 101,16 % | 101,53 % | 99,25 % | 100,38 % | 100,38 % | | | | |
| 2000 | | 133,57 % | 103,66 % | 100,51 % | 100,00 % | 100,50 % | 100,00 % | | | | | |
| 2001 | | 154,76 % | 103,59 % | 101,98 % | 100,49 % | 100,48 % | | | | | | |
| 2002 | | 166,67 % | 105,52 % | 101,96 % | 101,28 % | | | | | | | |
| 2003 | | 158,44 % | 106,56 % | 102,31 % | | | | | | | | |
| 2004 | | 151,90 % | 101,67 % | | | | | | | | | |
| 2005 | | 122,62 % | | | | | | | | | | |
| 2006 | | | | | | | | | | | | |

| Empirical | Development year | | | | | | | | | | | |
|-----------|------------------|----------|----------|----------|----------|----------|---------|----------|---------|----------|----------|----------|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Average | | 143,88 % | 102,72 % | 101,65 % | 100,50 % | 100,28 % | 99,92 % | 100,10 % | 99,87 % | 100,20 % | 100,00 % | #DIV/0! |
| Selected | | 143,88 % | 102,72 % | 101,65 % | 100,50 % | 100,28 % | 99,92 % | 100,10 % | 99,87 % | 100,20 % | 100,00 % | 100,00 % |

| 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 | 11 |
| delta (incr.) | | 1,4388 | 1,0272 | 1,0165 | 1,0050 | 1,0028 | 0,9992 | 1,0010 | 0,9987 | 1,0020 | 1,0000 | 1,0000 |
| delta (cum.) | 100 % | 144 % | 148 % | 150 % | 151 % | 151 % | 151 % | 151 % | 151 % | 152 % | 152 % | 152 % |
| pi (cum.) | 65,99 % | 94,95 % | 97,53 % | 99,14 % | 99,64 % | 99,92 % | 99,84 % | 99,93 % | 99,80 % | 100,00 % | 100,00 % | 100,00 % |
| pi (incr.) | 65,99 % | 28,96 % | 2,58 % | 1,61 % | 0,50 % | 0,28 % | -0,08 % | 0,10 % | -0,13 % | 0,20 % | 0,00 % | 0,00 % |

Observed claim statistics and predicted future development

| Accident year | Exposure | Developed to | Observed | pi(cum.) | Theta(CL) | Outstanding | Ultimate |
|---------------|----------|--------------|----------|----------|-----------|-------------|----------|
| 1996 | 7411 | 10 | 284 | 100 % | 3,83E-02 | 0,0 | 284,0 |
| 1997 | 7072 | 9 | 223 | 100 % | 3,15E-02 | 0,0 | 223,0 |
| 1998 | 6812 | 8 | 260 | 100 % | 3,82E-02 | 0,5 | 260,5 |
| 1999 | 6818 | 7 | 266 | 100 % | 3,90E-02 | 0,2 | 266,2 |
| 2000 | 5900 | 6 | 200 | 100 % | 3,40E-02 | 0,3 | 200,3 |
| 2001 | 5630 | 5 | 208 | 100 % | 3,70E-02 | 0,2 | 208,2 |
| 2002 | 5124 | 4 | 158 | 100 % | 3,09E-02 | 0,6 | 158,6 |
| 2003 | 4719 | 3 | 133 | 99 % | 2,84E-02 | 1,2 | 134,2 |
| 2004 | 3898 | 2 | 122 | 98 % | 3,21E-02 | 3,1 | 125,1 |
| 2005 | 3575 | 1 | 103 | 95 % | 3,03E-02 | 5,5 | 108,5 |
| 2006 | 3466 | 0 | 102 | 66 % | 4,46E-02 | 52,6 | 154,6 |
| Total | 60425 | | 2059 | | 3,50E-02 | 64,1 | 2 123,1 |

Prediction of future claim development (incremental)

| Evolution of future claim development (incremental) | | | | | | | | | | | | | | |
|---|--|------------------|----|---|---|---|---|---|---|---|---|----|----|-------|
| | | Development year | | | | | | | | | | | | |
| Accident year | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | Total |
| 1996 | | - | - | - | - | - | - | - | - | - | - | - | 0 | 0 |
| 1997 | | - | - | - | - | - | - | - | - | - | - | 0 | 0 | 0 |
| 1998 | | - | - | - | - | - | - | - | - | - | 1 | 0 | 0 | 1 |
| 1999 | | - | - | - | - | - | - | - | - | 0 | 1 | 0 | 0 | 0 |
| 2000 | | - | - | - | - | - | - | - | 0 | 0 | 0 | 0 | 0 | 0 |
| 2001 | | - | - | - | - | - | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2002 | | - | - | - | - | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2003 | | - | - | - | - | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 2004 | | - | - | - | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 2005 | | - | - | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 2006 | | - | 45 | 4 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 53 |
| | | | | | | | | | | | | | | 64 |

Prediction of overall claim development (incremental)

| Evolution of overall claim development (incremental) | | | | | | | | | | | | | |
|--|------------------|----|----|---|---|----|----|----|----|---|----|----|-------|
| | Development year | | | | | | | | | | | | |
| Accident year | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | Total |
| 1996 | 207 | 55 | 9 | 8 | 0 | 3 | 0 | 2 | -1 | 1 | 0 | 0 | 284 |
| 1997 | 149 | 66 | 7 | 4 | 1 | 0 | 0 | -4 | 0 | 0 | 0 | 0 | 223 |
| 1998 | 170 | 81 | 6 | 2 | 0 | 1 | -2 | 2 | 0 | 1 | 0 | 0 | 261 |
| 1999 | 177 | 88 | -6 | 3 | 4 | -2 | 1 | 1 | 0 | 1 | 0 | 0 | 266 |
| 2000 | 143 | 48 | 7 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 200 |
| 2001 | 126 | 69 | 7 | 4 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 208 |
| 2002 | 87 | 58 | 8 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 159 |
| 2003 | 77 | 45 | 8 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 134 |
| 2004 | 79 | 41 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 125 |
| 2005 | 84 | 19 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 108 |
| 2006 | 102 | 45 | 4 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 155 |
| | | | | | | | | | | | | | 2123 |