

**Reading:** ISO.Rating  
**Model:** Source Text  
**Problem Type:** Calculate the Company Subject Loss Cost using the Present Average Company Rate approach

ISO\_PACR\_CSLC (Problem 1)

**Given** The following policy is being rated using the ISO CGL rating plan.

12/1/2015	Effective Date
Claims-Made (CM)	Policy Type
70%	Expected Loss Ratio (ELR)
\$100,000	Estimated Gross Annual Sales
	Annual Basic Limit Premium <sup>1</sup>
\$80,000	Premises/Operations
\$30,000	Products

Information about previous policy years

Effective Date	Policy Type	Gross Annual Sales
12/1/2014	3rd-year Claims-Made	\$75,000
12/1/2013	2nd-year Claims-Made	\$63,000
12/1/2012	1st-year Claims-Made	\$42,000
12/1/2011	Occurrence	\$29,000

**Find** Calculate the Company Subject Loss Cost using the Present Average Company Rate approach using the information provided below.

<sup>1</sup> At \$100,000 per-occurrence and actual aggregate limits.

**Table 13B**

Sub-line	Occurrence	4th-yr CM	3rd-yr CM	2nd-yr CM	1st-yr CM
Prem/Ops	1.00	1.14	1.20	1.32	1.62
Products	1.00	1.51	1.59	2.03	2.39

**Table 13C**

Sub-line	Occurrence	4th-yr CM	3rd-yr CM	2nd-yr CM	1st-yr CM
Prem/Ops	1.00	0.84	0.78	0.67	0.47
Products	1.00	0.49	0.43	0.35	0.22

**Table 14**

Year of Experience Period	Sub-line	Rule 5B	Rule 5C
Latest Year	Prem/Ops	0.907	0.926
	Products	0.882	0.901
2nd Latest Year	Prem/Ops	0.864	0.892
	Products	0.828	0.854
3rd Latest Year	Prem/Ops	0.823	0.858
	Products	0.777	0.810

**Solution**

ISO\_PACR\_CSLC (Solution 1)

First it's important to figure out the type of policy we're going to price. Since it's not stated in the question we need to apply our knowledge about the experience period. The experience period covers up to the latest three full policy years of experience and must end at least six months prior to the effective date. This means we can't use the policy effective 12/1/2014 because it's not complete, so we use the policies effective in 2011 – 2013.

Further, it's implicit that unless told otherwise, once you switch to a Claims-Made policy you remain on a Claims-Made policy. We're told the policy effective 12/1/2014 is a 3rd-year Claims-Made policy so the policy being rated is a **4th-year Claims-Made**.

Next, we need the Basic Limits Expected Loss for each sub-line. However, notice the rapid growth in annual sales. This suggests there has been a dramatic shift in exposures. Further, the estimated annual sales for the prospective period still shows growth. This means we shouldn't use the standard approach and instead should use gross annual sales as the special exposure base.

The Basic Limits Expected Loss used in the present average company rate approach is the premium per prospective exposure multiplied by the historical exposure times the ELR.

(1) Policy Year	(2) Sub-line	(3) Policy Type	(4) Premium per Prospective Exposure	(5) Historical Exposure	(6) ELR	(7) BLEL	(8) PAF 13B	(9) PAF 13C	(10) Detrend	(11) Annual Basic Limits Company Loss Cost
2013	Prem/Ops	2nd-yr CM	0.80	\$63,000	70%	35,280	1.14	0.67	0.926	24,953
2013	Products	2nd-yr CM	0.30	\$63,000	70%	13,230	1.51	0.35	0.901	6,300
2012	Prem/Ops	1st-yr CM	0.80	\$42,000	70%	23,520	1.14	0.47	0.892	11,241
2012	Products	1st-yr CM	0.30	\$42,000	70%	8,820	1.51	0.22	0.854	2,502
2011	Prem/Ops	Occurrence	0.80	\$29,000	70%	16,240	1.14	1.00	0.858	15,885
2011	Products	Occurrence	0.30	\$29,000	70%	6,090	1.51	1.00	0.810	7,449
CSLC =>										\$68,330

**Notes:**

(4) Annual Basic Premium / Estimated Gross Annual Sales

(7) = (4) \* (5) \* (6)

(8) PAF 13B converts the prospective policy type to an occurrence policy, so doesn't vary by policy year.

(9) PAF 13C converts from an occurrence policy to the historical policy type.

(10) Since there is a dramatic shift in exposures we use Table 14 Rule 5C.

(11) = (7) \* (8) \* (9) \* (10)