

Reading: Odomirok - Chapter 22/23
Model: 2014.Spring #23
Problem Type: SAP 10K exhibit

(10K - 14S.23) Problem

Given

An insurance company began writing business in calendar year:	2009
The information below is from the company's annual statement for:	2012

Schedule P - Part 2 - Summary

years in which losses were incurred	INCURRED net losses and DCC reported at year-end				
	2009	2010	2011	2012	xxxx
2009	16,500	15,000	13,500	13,000	xx
2010		14,500	17,000	19,000	xx
2011			16,000	14,750	xx
2012				16,000	xx

Schedule P - Part 3 - Summary

years in which losses were incurred	cum PAID net losses and DCC reported at year-end				
	2009	2010	2011	2012	xxxx
2009	4,125	6,750	10,100	11,700	xx
2010		3,300	8,200	14,800	xx
2011			4,250	6,300	xx
2012				7,400	xx

Find

Calculate the 10-year loss development table that would be included in the insurer's 2012 10-K Exhibit.

The 10-year loss development table has 10 years of data but this company has only been in operation for 4 years so our table will include only those years.

calendar year ==>	2009	2010	2011	2012
initial reserves	12,375	19,450	23,950	22,550

cum paid as of	2009	2010	2011	2012
1 year later	2,625	8,250	10,250	n/a
2 years later	5,975	16,450		
3 years later	7,575			

cum incurred restated	2009	2010	2011	2012
1 year later	10,875	20,450	24,200	n/a
2 years later	9,375	21,950		
3 years later	8,875			

calendar year ==>	2009	2010	2011	2012
cum deficiency or (redundancy)	-3,500	2,500	250	n/a

<== also called ADVERSE DEVELOPMENT

The initial reserves are calculated as follows:

CY 2009:	12,375	=	(16500 - 4125)
CY 2010:	19,450	=	(15000 + 14500) - (6750 + 3300)
CY 2011:	23,950	=	(13500 + 17000 + 16000) - (10100 + 8200 + 4250)
CY 2012:	22,550	=	(13000 + 19000 + 14750 + 16000) - (11700 + 14800 + 6300 + 7400)

The cumulative PAID values are calculated as follows:

CY 2009 +1:	2,625	=	(6750 - 4125)
CY 2009 +2:	5,975	=	(10100 - 4125)
CY 2009 +3:	7,575	=	(11700 - 4125)
CY 2010 +1:	8,250	=	(10100 + 8200) - (6750 + 3300)
CY 2010 +2:	16,450	=	(11700 + 14800) - (6750 + 3300)
CY 2011 +1:	10,250	=	(11700 + 14800 + 6300) - (10100 + 8200 + 4250)

The cumulative INCURRED values restated are calculated as follows:

CY 2009 +1:	10,875	=	(15000 - 4125)
CY 2009 +2:	9,375	=	(13500 - 4125)
CY 2009 +3:	8,875	=	(13000 - 4125)
CY 2010 +1:	20,450	=	(13500 + 17000) - (6750 + 3300)
CY 2010 +2:	21,950	=	(13000 + 19000) - (6750 + 3300)
CY 2011 +1:	24,200	=	(13000 + 19000 + 14750) - (10100 + 8200 + 4250)

The adverse development is calculated as follows: (latest cum incurred restated) - (initial reserves)

CY 2009:	-3,500	=	8,875	-	12,375
CY 2010:	2,500	=	21,950	-	19,450
CY 2011:	250	=	24,200	-	23,950
CY 2012:	n/a	=	n/a	-	22,550