Paper: Odo.FinReg
Problem: Practice

Problem Type: Calculate PV(commuted claims), WITH risk margin

Notation: TMF = Total Margin Factor

Concept: TMF = (req'd margin) x (target cap to req'd ratio) x (risk cost of capital)

Given: All information is as at yr-end: 2016

undiscounted liabilities to be commuted: 4,000 risk-free rate: 2.0% required margin: 10% arget capital to required ratio: 200% risk cost of capital: 10%

calendar yr pmt patterns:

 2017
 50%

 2018
 100%

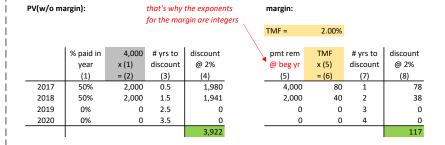
 2019
 100%

 2020
 100%

Assume: All pmts are made in the middle of the year

PV(with margin) =

4 039



Note 1: The (# of yrs to discount) is DIFFERENT for calc'ing the PV(w/o margin) and the corresponding margin. Refer to columns (3) and (7).

Note 2:	Think of (6) as the "cost of capital". The intermediate steps are:		
	req'd margin	=	(5) x req'd margin
	target capital	=	(5) x req'd margin x (target capital to req'd RATIO)
	cost of capital	=	(5) x req'd margin x (target capital to req'd RATIO) x risk cost of capital