FA Module 21: IFRS 17 acquisition cash flows – practice problems

(The attached PDF file has better formatting.)

IFRS 17 acquisition cash flows – practice problems

[Acquisition expenses are introduced in Module 21, but other concepts in the practice problems are explained in Modules 22 and 24. Work through these practice problems after completing Module 24. You must allocate acquisition cash flows by year on the final exam, following the method in this posting.]

Exercise 21.1: Insurance acquisition cash flows

An insurer issues insurance contracts on January 1, 20X1, with coverage periods of three years.

! Premiums of 900 are paid right after initial recognition.
! Total acquisition costs are 120, of which
  " 90 are directly attributable to the (portfolio of) insurance contracts
  " 30 are not directly attributable to the (portfolio of) insurance contracts
! No contracts lapse before the end of the coverage period.

This exercise focuses on acquisition costs, so the other items are kept simple.

! The estimated cash outflows for claims are 200 each on December 31, 20X1, 20X2, and 20X3.
! Actual claim payments equal the expected claim payments.
! The risk adjustment for non-financial risk is 15, or 5 for each claim.
! The discount rate for the fulfilment cash flows is 0% *per annum*.

IFRS 17 speaks of the amortization of the acquisition costs directly attributable to the insurance contracts, by which it means a systematic allocation based on the passage of time. IFRS 17 does not accrete interest on the insurance service revenue or expenses related to these acquisition costs, so the discount rate in this exercise is zero. (GAAP may accrete interest on the DPAC asset for long duration insurance contracts.)

A. What is the present value of future cash inflows at initial recognition?
B. What is the present value of future cash outflows at initial recognition?
C. What is the present value of future net cash flows at initial recognition?
D. What are the fulfilment cash flows at initial recognition?
E. What is the contractual service margin at initial recognition?
F. What are the fulfilment cash flows at December 31, 20X1?
G. What is the amount of the contractual service margin recognized in profit or loss in 20X1?
H. What are the (offsetting) revenue and expenses for acquisition costs recognized in 20X1?
I. What is the insurance revenue for 20X1?
J. What is the insurance service expenses for 20X1?
K. What is the insurance service result for 20X1?
L. What are the other expenses in 20X1?
M. What is the entry in the statement of profit or loss for 20X1?

Part A: The premium cash inflow is –900. (Cash inflows are negative entries for the fulfilment cash flows.)

Part B: This exercise has a discount rate of zero, so the present value of cash flows equals the nominal value.

! The claim cash outflow 200 + 200 + 200 = 600.
! The acquisition cost cash outflow is 90; only the acquisition costs directly attributable to the portfolio of insurance contracts are relevant for insurance service revenue and expenses.

The present value of future cash outflows is 600 + 90 = 690.

Part C: The present value of future net cash flows at initial recognition is –900 + 690 = –210.

Part D: The fulfilment cash flows at initial recognition is the present value of future net cash flows at initial recognition plus the risk adjustment for non-financial risk = –210 + 15 = –195.

Part E: The contractual service margin at initial recognition is the negative of the fulfilment cash flows at initial recognition but not less than zero, or 195 in this exercise.

Part F: The fulfilment cash flows at December 31, 20X1, are the present value of future claim payments plus the remaining risk adjustment for non-financial risk = 200 + 200 + 5 + 5 = 410. Equivalently, they are the fulfilment cash flows after the premium payment + accretion of interest – the December 31, 20X1, claim payment – the release of the risk adjustment for non-financial risk related to the December 31, 20X1, claim.

Part G: The contractual service margin of 195 at initial recognition plus the accretion of interest is allocated over the three years of the contract period. For 20X1, the amount recognized in profit or loss is (195 + 0) / 3 = 65, since the discount rate is zero.

Part H: The insurer determines the insurance revenue related to acquisition costs by allocating the portion of the premium for those costs to each year based on the passage of time, and it recognizes the same amount as insurance service expenses. The insurance service revenue for acquisition costs allocated to 20X1 (and the corresponding insurance service expenses) is 90 / 3 = 30.

Part I: The insurance revenue

- the premium for the claim incurred during the period = 200
- the release of the risk adjustment for non-financial risk = 5
- the amount of the contractual service margin recognized in profit or loss = 65
- the allocation of the premium for insurance acquisition costs = 30

The insurance revenue is 200 + 5 + 65 + 30 = 300.

Part J: The insurance service expenses for 20X1 are the incurred claim of 200 + the allocation of the premium for insurance acquisition costs of 30 = 230.

Part K: The insurance service result for 20X1 = the insurance revenue of 300 minus the insurance service expenses of 230 = 70. The allocation of the contractual service margin and the release of the risk adjustment for non-financial risk are profit (revenue minus expense) = 65 + 5 = 70.

Part L: The other expenses in 20X1 are the acquisition costs that are not directly attributable to the insurance contracts = 30.

Part M: The entry in the statement of profit or loss for 20X1 is the insurance service result of 70 minus the other expenses of 30: 70 – 30 = 40.