FA Module 13: Deferred taxes assets and liabilities – homework assignment

(The attached PDF file has better formatting.)

Homework assignment:

Some countries have statutory accounting systems for insurance regulation. Statutory accounting is geared for solvency regulation, not investor information, so future claims are discounted at low (conservative) rates.

In country W, the discount rate for claims depends on the accounting system:

- financial accounting: 7% *per annum*.
- statutory accounting for insurance regulation: 3% *per annum*.
- tax accounting: 5% *per annum*.

A claim will be paid for 100 on December 31, 20X4. The corporate tax rate is 20%.

For financial accounting and statutory accounting (separately):

A. What are the carrying value and the tax basis for the unpaid claim on December 31, 20X2?
B. What is the deferred tax asset or liability for the unpaid claim on December 31, 20X2?

To solve this homework assignment, use the following principles:

The carrying value and the tax basis depends on the discount rate. For example, the tax basis is $100 / 1.05^2$.

Whether the firm has a deferred tax asset or a deferred tax liability depends on whether the tax basis is more or less than the carrying value. Compare this example with the depreciation exercises on the discussion forum – but keep in mind that the carrying value of property, plant, and equipment is an asset, whereas the carrying value of the tax liability is a liability.

The tax expense for all years combined does not depend on the accounting system. If the tax expense in one year is higher for statutory accounting than for financial accounting, it must be lower in another year.