Appendix CA-12

Comprehensive Example of Deductions and T2 2% Cap

Bank "x" with Total Capital of 10,000,000 before deductions (consisting of 5,500,000 CET 1 and 4,500,000 Tier 2) has made three investments listed below. This time the investment in bank 'a' is increased to 1,800,000 to trigger heavier deductions.

Investment	Amount
Bank 'a'	1,800,000
Insurance entity 'b'	3,000,000[1]
Bancassurance 'c'	500,000[2]
Total	5,300,000

The first step is to calculate deductions in CA-2.4.2 to CA-2.4.15 to calculate CET1a . The bank has goodwill of 100,000 from the previous acquisition of a subsidiary. Of its 500,000 investment in Bancassurance 'c', 400,000 is reciprocated by Bancassurance 'c' in Bank 'x' so the reciprocal cross-holding of 400,000 of CET1 and the goodwill must be deducted below.

Determination of CET1a:

	CET1	Tier 2
CET1 and T2	5,500,000	4,500,000
Goodwill [3]	(100,000)	-
Reciprocal cross-holding	(400,000)	-
Resulting CET1a and T2	5,000,000	4,500,000

The second step is to see if the residual investment of 100,000 in bankassurance 'b' exceeds 10% of CET1a (CA-2.4.16). It does not so CET1b (CA-2.4.19) is the same as CET1a. There are no other investments in AT1 or T2 of other financial entities that require deduction (CA-2.4.21) from CET1b, so CET1b is the same as CET1c. The investment of 1,800,000 in bank 'a' represents 43.2% of the CET1 of bank 'a' (CA-2.4.20). The third step is to see if the investment in bank 'a' exceeds 10% of CET1 of bank 'x' (CA-2.4.23). The investment of 1,800,000 in bank 'a' represents 36% of bank 'x's CET1a. A deduction of 1,300,000 is required from CET1c of bank 'x' in respect of bank 'a' (CA-2.4.23). The amount of 500,000 is weighted at 250%. Also, the investment in insurance entity 'b' must be fully deducted because this too is in excess of the 10% threshold that has already been used by the investment in bank 'a' (see also CA-2.4.23). These deductions are shown on the following page. The concerned investments and deductions are shown below.

Investment	Amount	Deduction requirement (For full rules refer to section CA-2.4)
Bank "a"	1,800,000	1,300,000
Insurance entity "b"	3,000,000	3,000,000
Bancassurance "c"	500,000	400,000
Total	5,300,000	4,700,000

[1] This investment is 25% of the capital of insurance entity 'b'.
[2] This holding is 2% of entity 'c's CET1. Entity 'c' has also made a reciprocal cross-holding in CET1 of Bank 'x' amounting to 400,000. This amount must be deducted from CET1 of bank 'x'.
[3] This represents goodwill arising at the time of acquisition of a consolidated subsidiary.

Determination of CET1d:

	CET1a	Tier 2
CET1c and T2	5,000,000	4,500,000
Bank 'a'	(1,300,000)	
Insurance entity 'b'	(3,000,000)	-
Resulting CET1d and T2	700,000	4,500,000
Eligible CET1d and T2	**700,000**	**200,000** [4]

Required minimum CET1 = 6.5%
Required minimum Tier 1 = 8.0%
Required minimum Total Capital = 10.0%
Cap of contribution of T2 to minimum Total Capital = 2.0%

Calculation of CAR:

$$\text{CAR} = \frac{\text{Eligible Total Capital}}{\text{Risk-Weighted Assets}}$$

$$= \frac{(700{,}000 + 200{,}000)}{\text{(Say) } 10{,}000{,}000} = \frac{900{,}000}{10{,}000{,}000} = 9.0\%$$

The CET1 capital ratio of 7.0% exceeds the minimum required CET1 ratio in CA-B.2.1 (6.5%), but does not meet the required minimum T1 ratio of 8.0%. Tier Two is limited to a 2% contribution to minimum required Total Capital . Total Capital ratio is therefore 9%, thus failing to meet the minimum required Total Capital Ratio of 10%. This also means that the bank fails to meet any of the minimum required ratios including the capital conservation buffer (CET1 = 9.0%, T1 = 10.5%, and Total Capital = 12.5%), so the bank is precluded from paying dividends and bonuses to staff. This example with Appendix CA-11 shows how quickly a bank which relies excessively on T2 capital can find itself in extreme difficulties through a loss or deduction from CET1.

[4] Tier 2 can only contribute 2% to the minimum required Total Capital Ratio of 12.5% (CA-2.2.2).