

AFIN8003 - Workshop 3

Banking and Financial Intermediation

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THE APRA WAR ROOM

A Capital Adequacy Crisis Simulation

CONFIDENTIAL: ADRIABANK INTERNAL MEMO

To: All Risk and Finance Division Staff

From: Group CEO

Date: Thursday, 20 August 2026, 07:14 AM

Subject: APRA Urgent Capital Review (48-Hour Response Required)

Overnight, AdriaBank received formal notification from APRA that it will conduct an unannounced capital adequacy assessment commencing **Monday morning**. APRA has flagged concerns about our reported capital position following our latest quarterly statistical return.

I have assembled four specialist teams. Each team must complete its section of the analysis **by end of workshop today** and deliver a **3-minute board briefing** on their findings. The Board meets at the end of the session.

The future of AdriaBank, and your year-end bonuses, may depend on what you find.

Good luck.

Background: AdriaBank at a Glance

AdriaBank is a mid-sized Australian authorised deposit-taking institution (ADI) regulated by APRA. It uses the **standardised approach** to calculate risk-weighted assets. The bank has been planning to announce a **\$4 million dividend** to shareholders at the end of the quarter.

Workshop format:

Phase	Activity	Time
1	Briefing and group formation	5 min
2	Team investigations (work within your group)	35 min
3	Board presentations (3 to 4 min per team)	20 min
4	Class debrief and key takeaways	10 min

Your team assignment:

Team	Name	Your Mission
A	Capital Accounting Unit	Classify capital instruments; compute CET1, Tier 1, and Total capital
B	Credit Risk Division	Compute on-balance-sheet risk-weighted assets
C	Markets & Derivatives Desk	Compute off-balance-sheet risk-weighted assets
D	Strategy & Regulatory Affairs	Assemble all results; assess capital adequacy; stress test; recommend action

Team A: Capital Accounting Unit

Your mission: AdriaBank's Head of Financial Reporting has left you a data file listing all potential capital instruments on the balance sheet. Some of them do **not** qualify as regulatory capital under Basel III. Your job is to classify each instrument correctly and compute the bank's CET1, Tier 1 and Total regulatory capital.

Background: Capital Tiers Under Basel III

Recall the hierarchy:

- **CET1 (Common Equity Tier 1):** Highest quality capital. Includes common shares, retained earnings, and accumulated other comprehensive income (AOCI), **net of regulatory deductions** (e.g., goodwill and intangible assets must be deducted).
- **Additional Tier 1 (AT1):** Includes instruments that can absorb losses while the bank is a going concern, for example **non-cumulative perpetual preferred shares** and qualifying **contingent convertible bonds (CoCos)**. Critically, preferred shares must be **non-cumulative** to qualify as AT1. If cumulative, missed dividends accumulate and the instrument is too debt-like.
- **Tier 2:** Supplementary capital: subordinated debt, certain loan loss provisions (up to 1.25% of credit risk RWA), and other qualifying instruments.

Heads up: this three-tier structure is the framework in force today, and it is what this workshop uses. As covered in the lecture, APRA will remove AT1 from the framework from 1 January 2027. Task A3 asks what that means for AdriaBank.

Task A1: Classify the Instruments

AdriaBank's balance sheet includes the following items. For each instrument, determine: (i) Does it qualify as regulatory capital? If so, which tier? (ii) Is there anything that must be **deducted** from CET1?

#	Instrument	Amount (\$M)	Classification (fill in)
1	Common shares (fully paid, issued)	22	
2	Retained earnings	8	
3	Accumulated other comprehensive income (AOCI)	2	
4	Goodwill (intangible asset, carried on balance sheet)	3	
5	Deferred tax assets (relying on future profitability)	1	
6	Non-cumulative perpetual preferred shares	6	
7	CoCo bonds (mandatory conversion to equity if CET1 ratio < 5.5%)	4	
8	Cumulative preference shares	5	
9	Subordinated notes (5 years remaining maturity)	15	
10	General loan loss provisions	4	

Hint on item 8: Read the Basel III definition of AT1 carefully. The word “cumulative” is the key. What does it imply for the nature of missed dividends?

Hint on item 10: Loan loss provisions qualify for Tier 2 only up to **1.25% of credit risk RWA**. Credit risk RWA **\$476 million** (from Teams B and C). Calculate the cap and apply it.

Task A2: Compute Regulatory Capital

Using your classifications from Task A1, complete the capital waterfall:

Capital Component	Calculation	Amount (\$M)
Common shares + Retained earnings + AOCI		

Capital Component	Calculation	Amount (\$M)
Less: regulatory deductions (goodwill + DTA)		
= CET1 Capital		_____
Additional Tier 1 capital		
= Tier 1 Capital (CET1 + AT1)		_____
Tier 2 capital		
= Total Capital (Tier 1 + Tier 2)		_____

Task A3: Looking Ahead to 2027 (Discussion)

From 1 January 2027, APRA removes AT1 from the bank capital framework entirely (see lecture). Discuss briefly:

- Which of AdriaBank's instruments stop counting as regulatory capital, and how much in total?
- What happens to the bank's Tier 1 and Total capital if nothing is replaced?
- AdriaBank is a standardised ADI. What does APRA expect it to replace AT1 with, and what would you recommend the Treasurer issue?

Team A Board Briefing Preparation

Using the template on the last page, prepare your **3-minute board briefing**.

Key questions to address:

- How much CET1, Tier 1, and Total capital does AdriaBank have?
- Were there any instruments that looked like capital but didn't qualify? Why not?
- What should the board know about the quality of AdriaBank's capital base?

Team B: Credit Risk Division

Your mission: Compute the risk-weighted assets (RWA) for AdriaBank's **on-balance-sheet** assets. This forms the largest component of total RWA and determines how much "risky" activity the bank is running relative to its capital cushion.

Background: How On-Balance-Sheet RWA Works

Under the standardised approach, each asset is assigned a **risk weight** that reflects its credit risk. The RWA for each asset is simply:

$$\text{RWA} = \text{Asset value} \times \text{Risk weight}$$

Total on-balance-sheet RWA is the sum across all assets.

Task B1: Map Risk Weights and Calculate RWA

The following table lists AdriaBank's on-balance-sheet assets. Apply the correct risk weight and calculate the risk-weighted value.

Note: the weights below follow the simplified schedule used in the lecture and the textbook. The current APS 112 schedule is more granular (for example, mortgage weights vary with the loan-to-value ratio), but the mechanics are identical.

Asset Type	Amount (\$M)	Risk Weight	RWA (\$M)
Cash, Australian Treasury bonds, and deposits at the RBA	50	0%	
Local government bonds (S&P: AA–)	80	20%	
Loans to other Australian banks (S&P: BBB+)	40	100%	
Standard eligible residential mortgages	300	35%	
Corporate loans (S&P: BB– to BBB+)	150	100%	
Corporate loans (S&P: B+ or lower)	80	150%	
Total	700		_____

Task B2: Reflect

Discussion question (2 min with your group): The residential mortgages receive a 35% risk weight while corporate loans to investment-grade companies (BB– to BBB+) receive 100%. Does this seem fair? What assumption does this embed about Australian housing?

Can you think of a scenario where this assumption breaks down?

Extra challenge: Suppose AdriaBank is considering selling its entire portfolio of low-rated corporate loans (B+ or lower) and replacing them with additional residential mortgages. How much would total on-BS RWA change? Is this a good idea purely from a capital ratio perspective? What are the risks?

Team B Board Briefing Preparation

Using the template on the last page, prepare your **3-minute board briefing**.

Key questions to address:

1. What is AdriaBank's total on-balance-sheet RWA?
2. Which asset classes are driving the most risk?
3. If the bank wanted to reduce RWA, where would you look first?

Team C: Markets & Derivatives Desk

Your mission: Compute the risk-weighted assets (RWA) for AdriaBank's **off-balance-sheet (OBS)** activities. OBS items don't sit on the balance sheet but can still create real credit losses, and regulators require capital to be held against them.

Background: Two Types of OBS Exposure

Type 1: Contingent and guarantee-type contracts (e.g., loan commitments, letters of credit):

These are converted to an on-balance-sheet equivalent using a **Credit Conversion Factor (CCF)**:

$$\text{Credit Equivalent Amount (CEA)} = \text{Face value} \times \text{CCF}$$

Then: $\text{RWA} = \text{CEA} \times \text{Risk weight}$

Type 2: Market contracts and derivatives (e.g., interest rate swaps, FX forwards):

These carry **counterparty credit risk**. The CEA has two components:

- **Potential future exposure:** the risk if the counterparty defaults at some point in the future. = Notional $\times$ Potential Exposure Conversion Factor (PECF)
- **Current exposure:** the cost of replacing the contract today if the counterparty defaults now. = $\max(0, \text{Replacement cost})$

$$\text{CEA} = \text{Potential future exposure} + \text{Current exposure}$$

$$\text{RWA} = \text{CEA} \times 100\%$$

Note: the add-on method below is the Current Exposure Method from the lecture. In practice it has been superseded by SA-CCR (APS 180), which follows the same current-plus-potential-exposure logic with a more elaborate formula.

Task C1: OBS Contingent and Guarantee Contracts

OBS Item	Face Value (\$M)	CCF	CEA (\$M)	Risk Weight	RWA (\$M)
18-month loan commitment	100	0.4		20%	
Standby letter of credit	50	1.0		20%	
Commercial letter of credit	40	0.2		75%	
Total					_____

Task C2: OBS Market Contracts and Derivatives

Step 1: Calculate potential future exposure:

Contract	Notional (\$M)	PECF	Potential Exposure (\$M)
5-year interest rate swap (fixed-for-floating)	500	0.005	
3-year FX forward contract	200	0.050	

Step 2: Calculate current exposure:

Contract	Replacement Cost (\$M)	Current Exposure (\$M)
5-year interest rate swap	+8	
3-year FX forward contract	−4	

Recall: Current exposure = $\text{Max}(0, \text{replacement cost})$. If the replacement cost is negative, the contract is out-of-the-money for AdriaBank and the counterparty owes AdriaBank nothing. There is no current credit exposure.

Step 3: Calculate CEA and RWA:

Contract	Potential Exposure (\$M)	Current Exposure (\$M)	CEA (\$M)	Risk Weight	RWA (\$M)
5-year interest rate swap				100%	
3-year FX forward contract				100%	
Total					

Task C3: Total OBS RWA

OBS Category	RWA (\$M)
Contingent and guarantee contracts	
Market contracts and derivatives	
Total OBS RWA	

Team C Board Briefing Preparation

Using the template on the last page, prepare your **3-minute board briefing**.

Key questions to address:

1. What is AdriaBank's total OBS RWA?
2. Why do we require capital against off-balance-sheet items? Aren't they off the balance sheet for a reason?
3. The FX forward has a negative replacement cost. Does this mean AdriaBank has zero credit exposure? Explain.

Team D: Strategy & Regulatory Affairs

Your mission: You are the Chief Risk Officer. Once the other teams have finished, collect their results and assemble the complete capital adequacy picture for AdriaBank. Then run a stress test and advise the Board on what must be done, including whether the planned dividend can proceed.

For Team D only: You will receive Group A, B, and C's results mid-workshop. You also have the following additional information: AdriaBank's **RWA for market risk = \$35 million** and **RWA for operational risk = \$25 million**. The bank's total on- and off-balance-sheet exposure (for leverage ratio purposes) is **\$1,050 million**. APRA has currently set the **Countercyclical Capital Buffer (CCyB) at 1.0%**, which is its actual default setting, as covered in the lecture.

Task D1: Assemble Total RWA

Collect figures from Teams B and C, then add the market risk and operational risk RWA provided separately.

RWA Component	RWA (\$M)
On-balance-sheet credit risk (from Team B)	
Off-balance-sheet credit risk (from Team C)	
Market risk (provided)	35
Operational risk (provided)	25
Total RWA	_____

Task D2: Calculate Capital Ratios

Using the capital figures from Team A and total RWA from Task D1:

Ratio	Formula	Calculation	Result	Minimum Required
CET1 capital ratio	CET1 / Total RWA			4.5%
Tier 1 capital ratio	Tier 1 / Total RWA			6.0%
Total capital ratio	Total capital / Total RWA			8.0%
Tier 1 leverage ratio	Tier 1 / Total exposure (\$1,050M)			3.0%

Note: the 3.0% leverage minimum applies because AdriaBank is a standardised ADI. ADIs on the IRB approach face 3.5% under APS 110.

Does AdriaBank pass all four minimum requirements? Circle: **YES** / **NO**

Task D3: The Capital Buffer Test

Meeting the minimum ratios is not enough. Under Basel III, banks must also maintain the **Capital Conservation Buffer (CCB)** and any applicable **Countercyclical Capital Buffer (CCyB)**.

APRA has currently set the CCyB at **1.0%**. The 2.5% CCB used below is the standardised-ADI setting, which is what applies to AdriaBank; the major IRB banks face a 3.75% CCB under APRA's "unquestionably strong" calibration (see lecture).

Step 1: Calculate the required CET1 ratio including all buffers:

$$\text{Required CET1} = \text{Minimum CET1} + \text{CCB} + \text{CCyB} = 4.5\% + 2.5\% + _____\% = _____\%$$

Step 2: Compare AdriaBank's actual CET1 ratio to the required level:

The Board Meeting: Presentation Guidelines

Each team delivers a **3-minute board briefing** in sequence: $A \rightarrow B \rightarrow C \rightarrow D$.

Team D's presentation is the climax: they synthesise everything and deliver the verdict.

Board Briefing Template

Use this structure for your presentation:

Section	Your notes
1. What we found (30 sec)	
2. What it means (60 sec)	
3. The key risk / concern (30 sec)	
4. Our recommendation (60 sec)	

Peer Assessment: Audience Scorecard

While each team presents, **other teams fill in this scorecard**. Be honest; the teams presenting to a real APRA panel will need to handle tough questions.

Criterion	Team A	Team B	Team C	Team D
Accuracy: Numbers/classifications are correct (1 to 5)				
Clarity: Explanation is clear and well-structured (1 to 5)				
Insight: Goes beyond the numbers to the “so what” (1 to 5)				
Composure: Confident delivery, handles questions well (1 to 5)				
Total /20				

Debrief: Three Connections to the Lecture

If time allows, discuss as a class.

1. **“Capital is not a pile of cash.”** A journalist covering AdriaBank's troubles writes: “APRA will force the bank to hold more capital, meaning millions will sit idle in a vault instead of being lent to customers.” What is wrong with this sentence?

2. **The buffers bind before the minimums.** AdriaBank passed all four minimum ratios yet still cannot pay its dividend. In practice, which requirement actually constrains a bank's behaviour: the minimums or the buffers? What does that tell you about the headline "4.5% CET1 minimum"?
3. **Same bank, tougher rulebook.** Suppose AdriaBank were an IRB bank instead, facing APRA's 3.75% CCB. Recompute the required CET1 ratio and the shortfall. Why does APRA hold the majors to a higher standard than banks like AdriaBank?