

2024 EY Actuarial Case Competition

Macquarie, UNSW

The EY logo is displayed in a bold, black, sans-serif font. A yellow diagonal bar is positioned above the letters 'Y'.

Building a better
working world

Background

A major Australian bank has recently observed a significant increase in customer churn across multiple business lines (retail, business and institutional banking). A surprising number of customers, both old and new, shift their business to competitors. In addition to this, there has been noticeable reduction in the acquisition of new customers. Consequently, the bank is concerned about the potential implications this might have on its financial position, risk profile and overall strategy.

Snapshot of recent trends in the Australian Banking Industry

Small rise in early-stage delinquencies suggest that interest rate rises and the erosion of saving buffers are starting to impact customers¹

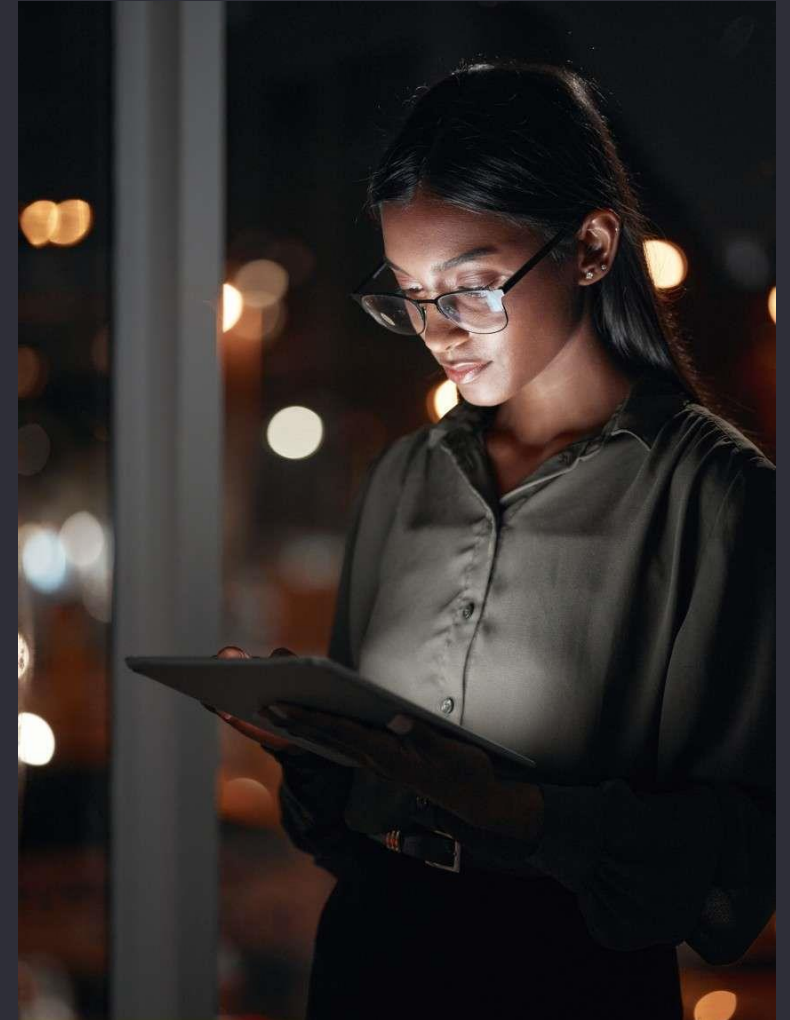
Major banks have reported strong full year results despite decreasing net interest margin and high-cost pressures²

Banks are executing on digital transformation plans to improve customer experience and drive revenue³

¹ <https://www.realestatebusiness.com.au/industry/26655-mortgage-delinquencies-to-keep-rising-moody-s>

² <https://www.smh.com.au/business/banking-and-finance/cba-profits-expected-to-top-5-billion-despite-margin-squeeze-20240206-p5f2s8.htm>

³ <https://fintechmagazine.com/articles/gft-digital-banking-transformation-in-2024>



Question

In your role as a banking actuary, you have been tasked with understanding the observed trends and proposing a strategy to reverse or manage the high rate of customer churn.

The client is interested in understanding the potential implications customer churn has on the bank's financial position, risk profile and strategy. For your analysis, the client asked you to select one of the business lines (retail, business banking or institutional banking) and focus on it when answering the relevant questions.



Specifically, your client requests the following:

- 1 Address how customer churn may impact the following risk types:
 - Credit risk
 - Market risk
 - Liquidity risk
- 2 Outline the impact that current and future market conditions may have on the customer churn rate
- 3 How could actuarial tools and techniques, such as predictive modelling, be utilised by the bank to better understand the cause of the customer churn and to predict future trends?
- 4 Design and propose a solution or an initiative that the bank could undertake to reverse the trend of customer churn. Using any major Australian bank¹ as an example, quantify and discuss the impact of the proposed solution on the financial position of the bank².

¹ You may refer to financial statements of major Australian banks to assess this.

² This may include the quantification of revenue, expenses, profit, market share, impact on capital, etc.

References



You may find the following references useful:

[RBA Economic Conditions](#)

[An introduction to churn rates](#)

[RBA Financial Stability Review - October 2023](#)

[Analytics on banking customer relationships](#)

[Major Australian banks' 2023 FY Results](#)

[Example of risk types considered by a big 4 AU bank](#)

Please feel free to use additional sources to inform your response and appropriately reference any relevant sources.

Submission instructions



Teams are required to submit their response as a slide deck (in .ppt, .pptx or .pdf format) for a 10 minute presentation and 5-10 minute Q&A.

HOW TO SUBMIT

1. Email your response to
 - ▶ UNSW students: careers@asoc.unsw.edu.au
 - ▶ Macquarie students: admin@mqassoc.com
2. Attach the slides and projection model with the subject:
2024 EY Joint Actuarial Case Competition - [Team Name]
3. Include your team name and members in the body of your email.
4. Deadline
11:59 pm, 28th March 2024

About EY Actuarial Services

Building a better working world



Drawing on a diverse range of experiences and competencies, the Actuarial Services team at EY tackles the problems that face our clients in a wide range of industries, ranging from insurance practices to broader financial services and government departments.

We apply actuarial and analytical skills to a wide range of traditional and non-traditional areas within our teams:

- ▶ General Insurance
- ▶ Life Insurance and Wealth Management
- ▶ Banking and Capital Markets
- ▶ Health and Human Services

As part of these teams, you might:

- ▶ Design and price products taking into consideration market developments, client objectives, current product profitability and marketing issues
- ▶ Assist insurers with an assessment of their capital stability under various stress scenarios
- ▶ Value exotic derivatives using sophisticated stochastic modelling
- ▶ Perform due diligence, business valuation and provide assistance with mergers and acquisitions
- ▶ Value liabilities for insurance companies, regulators or other businesses under a range of circumstances
- ▶ Transform complex datasets to help clients understand their business and their needs
- ▶ Work with professionals from other EY service lines to improve the analytical capabilities of government clients so that they can better support their members and communities

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“

I chose to work for EY because of the positive experiences I had in the Career Compass Program and as a Vacationer. As a Vacationer, I enjoyed the opportunity to sample projects across the four actuarial teams within EY, which gave me exposure to a variety of projects EY is involved in and helped me to select the area I wanted to pursue. As both a Vacationer and a Graduate at EY, I enjoyed the opportunity to work collaboratively with other services lines. I developed both technical skills and soft skills such as project management and stakeholder management. Above all else, I enjoy working with the people at EY and have made many good friends during my time here!



Nicole Andrianopoulos
Sydney

Unleash your potential, embark on a journey of growth, and kickstart your career with us!

As a Graduate or Vacationer in EY Actuarial Services, you'll be joining a leading actuarial consultancy in Australia and EY's global actuarial network.

We apply actuarial skills to a wide range of traditional and non-traditional areas such as life insurance, general insurance, banking and capital markets and advanced analytics and modelling. We're looking for confident, dynamic, highly numerate students with strong communication skills. At EY you'll have the formal training and professional development you need to set you up for success, both now and in the future.

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