



# ASSIGNMENT COVER SHEET

**THIS FORM MUST BE AT THE FRONT OF EACH ASSIGNMENT  
CANDIDATES MUST KEEP A COPY OF THEIR ASSIGNMENT**

*Candidate to complete the following section (and update details in header):*

<b>Member ID:</b>	<b>Sample Assignment</b>
<b>Subject:</b>	<div><input type="checkbox"/> Asset Liability Management <input type="checkbox"/> Communication, Modelling and Professionalism <input type="checkbox"/> Banking <input type="checkbox"/> Enterprise Risk Management <input type="checkbox"/> General Insurance and Health Pricing and Portfolio Analytics <input type="checkbox"/> General Insurance and Health Valuation <input type="checkbox"/> Investment <input type="checkbox"/> Life Insurance and Retirement Product Development <input type="checkbox"/> Life Insurance and Retirement Valuation <input checked="" type="checkbox"/> Data Science Applications <input type="checkbox"/> General Insurance Applications <input type="checkbox"/> Life Insurance Applications <input type="checkbox"/> Superannuation and Retirement Applications</div>
<b>Due Date:</b>	[Friday, 04 October 2024 at 12:00pm AEST]

## PLAGIARISM

By submitting your assignment, you are implicitly stating that the work is your own.

Remember that an important aspect of being a professional actuary is to always act with integrity. Committing plagiarism by copying another person's work or not properly referencing other sources used in your assignment is a breach of the Integrity principle under the Actuaries Institute's Code of Conduct.

Any suspected plagiarism will be referred to the Institute's Executive General Manager, Education for review. Depending on findings, a complaint regarding the member may be made to the Institute's Conduct Committee. Subject marks may not be released until the matter is resolved.

Be aware that your assignment may be vetted using Turnitin.



Q4a.

### **Critique of the Original Summary**

An engaging summary should cater to the specific needs and expectations of its audience. For actuaries, the relevance, recency, practical implications, and clarity of the content are paramount. The AI-generated summary fails to meet these expectations.

#### **1. Lack of Relevance and Recency**

Actuarial work is dynamic, requiring constant updates on the latest trends and findings. The original summary does not emphasize how the paper relates to current actuarial practices, such as the impact of housing policy on retirement planning. For example, a more engaging summary might highlight how recent economic conditions, like the growing focus on housing affordability, influence retirement planning—a critical concern for actuaries advising on long-term financial security. This failure to tie the summary to relevant, real-time issues makes it less engaging for professionals looking for immediate applicability.

#### **2. Purpose and Audience Context**

Actuaries engage with content in professional development hubs like the CPD Hub, aiming to fulfill specific requirements such as earning CPD points. The AI summary neglects to address practical concerns like how many CPD points this asset offers or the expected time to complete it. This omission matters because actuaries, who are constantly balancing time against professional obligations, need to know whether the material is worth their investment. Including these details would make the summary more useful and engaging by helping actuaries make informed decisions about how to meet their annual 200-point CPD requirement.



### **3. Direct Relevance to Actuarial Practice**

The AI summary lacks a clear connection between the paper's content and how it applies to an actuary's professional work. For instance, the summary could better serve its audience by illustrating how reverse mortgage schemes or home equity release products affect actuarial calculations in areas like retirement adequacy and longevity risk. Actuaries are focused on how such financial products impact their modelling and risk assessments. Without this connection, the summary remains too generic, failing to engage actuaries who require insights directly applicable to their specialized roles.

### **4. Region and Jurisdiction Considerations**

The summary lacks any mention of regional and jurisdictional differences, which are critical for actuaries working across different states or countries where laws and regulations vary. Actuarial work often involves aligning financial products, tax treatments, and retirement solutions with specific legal frameworks. Without clarifying the jurisdictional context, the summary loses relevance for actuaries who need to understand where the discussed policies and products apply and how they might differ based on location.

### **5. Flat Language and Passive Tone**

The language used in the AI summary is passive and lacks the dynamic phrasing that makes content engaging. Active language could transform the summary, making it more compelling. For example, instead of saying, "The paper discusses schemes such as reverse mortgages," a more engaging version could state, "The paper reveals how reverse mortgages unlock housing wealth, offering retirees a crucial tool for funding their lifestyle." This small change not only adds clarity but also emphasizes the practical benefits of the discussed concepts, making the summary more relatable for actuaries.



Below is the initial Summary from ChatGPT

"The document titled "More Than Just a Roof: Changing the Narrative on the Role of the Home" discusses various aspects of home ownership in Australia, particularly its role in retirement planning and income. Key points include:

1. **Superannuation and Retirement:** The paper highlights Australia's aging population and how the superannuation system is still maturing. It discusses the importance of the family home as a key financial asset in retirement, noting that many retirees are "asset-rich but cash-poor" and how this can impact their quality of life.
2. **Unlocking Housing Wealth:** It advocates for changing the mindset towards using home equity to support retirement lifestyles. Policy suggestions include improving access to home equity release schemes and reducing the downsizing costs, such as stamp duty and legal fees.
3. **Home Ownership and Equity:** The paper discusses trends in home ownership, noting a decline in younger generations owning homes. It also highlights the inequity in the current Age Pension means test, which heavily favors homeowners over renters, and suggests revisiting the treatment of home equity in this test to create a more equitable system.
4. **Reforming Policies:** It calls for policy changes to improve financial literacy and consumer protection in housing-related financial products. The need to integrate housing more explicitly into the retirement income system is emphasized, particularly given Australia's high reliance on home ownership for retirement security.

Overall, the paper advocates for a shift in how homes are perceived in retirement planning, suggesting reforms to unlock housing wealth to improve retirement outcomes while maintaining protections for vulnerable groups."

Reference: Boal, A. (2024). *More Than Just a Roof: Changing the Narrative on the Role of the Home*. Actuaries Institute. Summary generated by ChatGPT, OpenAI, on 23 September 2024.



Q4B

To refine the summary, I instructed ChatGPT through an iterative process to ensure it addressed the specific needs of actuaries while being engaging and clear. Each step was designed with a clear rationale to align the summary with actuarial standards and professional requirements.

### 1. Initial Critique and Focus on Relevance

The first step involved critiquing the original summary and identifying the gaps in relevance and recency. My rationale was that actuaries require immediate applicability, and they need to see how a document impacts their work in relation to current market trends. I instructed ChatGPT to emphasize the July 2024 publication date to connect the paper to pressing economic issues, like housing affordability, which are critical for actuarial modelling today.

### 2. Iteration 1: Addressing Key Critique Points

I instructed ChatGPT to address five specific areas from my critique, each with a clear rationale for improvement:

- **Relevance and Recency:** I directed ChatGPT to link the paper to ongoing housing market issues to show how actuaries could directly apply the insights to current economic conditions. This ensures that the summary has immediate relevance to their work.
- **Purpose and Audience Context:** Since actuaries must meet CPD requirements, I asked ChatGPT to estimate reading time based on word count. This helps actuaries gauge whether the material fits into their professional development goals within their limited time.
- **Direct Relevance to Actuarial Practice:** I instructed ChatGPT to make the summary specific to retirement actuaries, superannuation specialists, and financial risk actuaries, linking the insights to practical aspects like pricing models and retirement projections. This made the content directly applicable to their work.

### 3. Refining Based on Feedback

After the first iteration, I found that certain important details, such as the reading time estimate, were missing. I manually requested ChatGPT to reintroduce these details because they help actuaries decide how to prioritize their learning resources efficiently.



I also instructed ChatGPT to refine how financial risk actuaries could benefit from the paper, asking for a more explicit link between reverse mortgage risks and market volatility to ensure the content was relevant to risk assessment tasks.

#### 4. Finalizing Tone and Engagement

In the final stage, I instructed ChatGPT to focus on the tone. Actuaries prefer clear, direct communication, so I asked for the summary to be rewritten in a more active voice, removing passive language and repetition. This change ensured that the summary was more engaging and professional, making it easier for actuaries to absorb key insights.

#### Conclusion

At each step, my instructions focused on ensuring the summary was practical, engaging, and tailored to actuaries. By improving relevance, audience context, and tone, I ensured the final summary addressed all the critique points effectively and delivered valuable insights for actuarial practice.

#### **Below is the revised summary created by ChatGPT**

“Direct Summary: More Than Just a Roof - Changing the Narrative on the Role of the Home

Published in July 2024, the paper "More Than Just a Roof: Changing the Narrative on the Role of the Home" delivers a timely and critical analysis of how retirees can unlock the untapped potential of home equity to boost their financial security. With property prices at record highs, the paper argues that tools like reverse mortgages and downsizing should play a central role in retirement planning, challenging the outdated "nest egg" mindset.

Purpose and Audience Context: For actuaries focused on retirement income and financial risk management, this paper presents vital insights. It encourages actuaries to rethink how housing wealth fits into retirement models. Packed into about 8,000 words—taking roughly 45-60 minutes to read—it’s a compact yet rich resource for those seeking to sharpen their approach to client advisories or policy discussions, while also meeting CPD requirements.

Direct Relevance to Actuarial Practice: Actuaries working in superannuation, financial risk, and retirement income planning will find direct applications:



- Innovating retirement products: The paper provides a roadmap for creating or improving products like reverse mortgages that can help clients access housing wealth without jeopardizing their financial future.
- Enhancing longevity models: Actuaries can integrate housing wealth into longevity risk models, balancing it against other assets to offer a more secure retirement income stream.
- Advising on policy: The discussion on policy reforms gives actuaries a platform to contribute to broader discussions on how to reshape retirement funding, aligning their expertise with government or organizational strategies.

For financial risk actuaries, the analysis offers insight into emerging risks in the reverse mortgage market, enabling them to better assess product viability and market opportunities.

Regional and Jurisdictional Considerations: The paper focuses on Australia's legal and economic landscape, particularly policies like Age Pension means testing, the Home Equity Access Scheme, and downsizer contributions. However, actuaries outside of Australia—especially in the UK or US—should adapt these insights to their own regional contexts. Local housing markets, tax laws, and pension systems will impact how home equity can be leveraged. Understanding these differences is essential for actuaries advising on global strategies or tailoring local solutions.”

Reference: Boal, A. (2024). *More Than Just a Roof: Changing the Narrative on the Role of the Home*. Actuaries Institute. Summary generated by ChatGPT, OpenAI, on 23 September 2024.



## < Data Science Applications >

<Sample  
Assignment>

Question 5

[https://youtu.be/Vs-j\\_NkXQzU](https://youtu.be/Vs-j_NkXQzU)