



# ACTUARY PROGRAM 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 and footer):

<b>Member ID:</b>  Sample	<b>COURSE:</b>  Asset Liability Management
<b>DATE DUE:</b> Monday 13 March 2023 at 9.00pm (Sydney Time)	

## 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.

Be aware that your assignment may be vetted using Turnitin.



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## Part B Assignment

(Total 10 marks)

### Question 1

Consider a country with a democratically elected government, an appointed central bank, an orderly money market, listed exchanges for a wide range of securities across asset classes and an asset management industry facilitating a wide range of investment activities.

Individuals often choose to invest via a diversified investment trust offered by an asset management company, usually after taking advice from a financial advisor who is remunerated by the investment trust.

You have been approached by a friend who is considering such an investment for herself.

Hint "Investment trust" is defined in course materials Module 4 page 20.

**Q1** Explain to your friend the roles of these market participants, including how she will benefit **(6 marks)**

- Asset management company;
- Custodian; and
- Credit rating agency.

### Answer is

Asset management company refers to the company responsible for managing the investment trust's portfolio of assets. The investment managers of the company are the ones that make investment decisions based on the trust's stated objectives and aim to generate returns for the investors. These asset management companies may include superannuation funds, insurance providers, banks, and sovereign wealth funds.

The advantages of having an asset management company are that:

1. They have specialist knowledge and expertise in this area, possessing a good understanding of the markets and the future economic outlook to make well-educated investments to maximise returns.



2. Asset management companies benefit from having a large fund and access to a wide variety of assets, which allows them to invest in a diverse range of assets. By investing in different markets and assets, the trust is able to diversify their risks, providing investors with lower risks and higher and more stable returns. This allows individual investors to achieve diversification regardless of the amount invested, which is not achievable otherwise.
3. There are often costs associated with making direct investments in specific assets. With an asset management company, you are able to forego the costs and instead pay management charges and fees, which might be lower than the costs of direct investment.

Next, a custodian or a custodian bank is a financial institution responsible for holding and safeguarding the assets of the investment trust to minimize the risk of theft or loss. In addition, they also perform other functions such as arranging settlements of any purchases and sales, keeping investors informed of annual general meetings, facilitate foreign-exchange transactions, and additional services that vary between custodians. This can benefit investors and the trust managers in several ways.

1. For individual investors, and especially inexperienced investors such as yourself, this can provide you with peace of mind and additional trust in the investment trust. Having a custodian acts as a mark of security and transparency, which helps to minimize the risk of fraud or mismanagement. This also helps to boost investor's confidence, which helps to boost the marketability of the trust, increasing the liquidity for investors.
2. Some custodians may provide additional services, such as fund accounting, administration, legal, compliance, and tax support services. This helps both individual investors and trusts by reducing their workload, and to focus on other activities, such as managing the trust to maximize returns for investors.

Finally, a credit rating agency is a company that assigns credit ratings, which rate a debtor's ability to pay back debt by making timely principal and interest payments. They assign credit ratings to a range of different debt instruments, including government bonds, corporate bonds, mortgage-backed securities, collateralized debt obligations. They aim to estimate the probability of default in the payment of interest or principal. This can also benefit investors in multiple ways:



1. Credit ratings provide an indication of the riskiness of an asset through extensive research, with a higher rating indicating a lower likelihood of default. This is useful for both individual investors and asset managers consider risk-return trade-offs to evaluate whether certain investments are worth making and whether they are within the investors' risk appetite. This ultimately allows investors to benefit from a balance between the riskiness and returns of investments.
2. Additionally, companies' reputations and brand name are highly dependent on credit ratings, so companies will often look to maintain a high credit rating by executing sound and less risky financial strategies. This is beneficial to investors as it reduces the probability of default (credit risk) for companies that have been invested in.
3. Credit rating agencies also help to boost the transparency of companies as the agencies perform extensive research to rate and evaluate companies. This helps to increase the availability of information for investment managers to make the appropriate investment decisions.

## Question 2

Explain to your friend three counterparty risks arising for the proposed investment, considering the parties involved. **(3 marks)**

Hint: Only the first three risks discussed will be marked, there is no advantage in a longer list

### Answer is

Counterparty risk is the likelihood or probability that one of those involved in a transaction might default on its contractual obligation. This might arise from a range of different parties involved in the investment.

1. The first counterparty risk exists with the asset management company. Investors investing in a trust have limited control over the assets they are investing in, so they are trusting the investment trust to make the appropriate financial decisions for them. However, the manager's decisions are formed based on their opinions and they have the possibility to make significant losses despite their market knowledge and expertise. This trust may then experience financial difficulties, resulting in losses for investors.



2. Another counterparty risk exists with the credit rating agencies. In some markets, the agencies are not paid by the principal investor, rather by the security or issuer being assessed. This can lead to incentives to provide a higher credit rating in exchange for a higher payment, which does not accurately reflect the risk of the instrument. This adds another source of counterparty risk to the investment as the investments may be misguided and the companies and instruments may default.
3. Finally, counterparty risk may arise in the use of derivatives or hedging instruments. These instruments are usually used by trusts to manage investment risks arising from interest rates and adverse price movements in order to provide stable investments to the investors, especially during economic uncertainty. Counterparty risk arises when the other parties fail to fulfil their obligations, due to bankruptcy or default, which can negatively affect the trust and lead to losses for investors.

### Question 3

Assess the conflict of interest arising for the investment advisor. **(1 mark)**

### Answer is

The conflict of interest arising for the investment advisor is that they might draw their fees from the trust regardless of their management performance or the trust's investment performance, which leads to a conflict of interest as their compensation is not based on an obligation to make good investments. Alternatively, the investment advisor may be paid on the basis of commissions of the size of funds under management, which could lead to sub-optimal investment decisions that do not meet the customers' needs. Finally, investment advisors may have personal investments in certain assets, in which case there exists a conflict of interest and risk of the investor trading for personal gain to increase their own returns rather than maximizing returns for the investors.

In conclusion, there are many ways in which conflicts of interest can arise and it is important for investment advisors to disclose them. They should also aim to remove themselves from these conflicts to ensure they act in the investors' best interests.

### END OF PART B ASSIGNMENT