

ASSET LIABILITY MANAGEMENT

ASSIGNMENT SEMESTER 2 2021 – STUDENT FEEDBACK



Feedback materials

- Assignment goals;
- Results summary;
- Overall feedback;
- Learning objectives assessed;
- Feedback by question; and
- Example of Part B submission graded 'Significantly above pass level'.

For the assignment, you should use the general feedback and marking guide to grade the sample assignment and your own submission. This will help you to compare the assignments and identify areas where your submission could have been improved.

Our belief is that this active approach to studying will provide you with a deeper understanding of where you need to improve. This is the best way for you to learn about your areas of strength and weakness in your understanding. We do not provide students with individual feedback on their assessments.

Goals of this assignment

The main purpose of the assignment from your perspective was to help you develop skills required to pass examinations at Actuary level. These skills are also required by employers. The specific skills that are being developed and assessed in the assignment are:

- acquisition of subject knowledge;
- application of subject material in an unfamiliar context; and
- communication of relevant points in language appropriate to the audience, in a logical and coherent manner.

Material from Module 1 through to 7 was assessed in Part A and Part B.

The assignment for the ALM subject accounts for 20% of the total mark. Whilst it counts towards the final mark, primarily the assignment is effectively a formative assessment and is used as a teaching tool. Specifically, the assignment allows students to self-reflect on their ability to learn the subject matter, communicate clearly under time pressure and to develop an understanding of the additional effort required to complete their learning and improve their speed of communication before the final examination.



A guide to the expected standard of communication for the Actuary level subjects is the quality expected from an employee in their first year of work.

Grades

The chief examiner loads the Part A answers to the LMS and the questions are marked automatically. Results are then downloaded and stored. Part B was marked by a volunteer marker and results were moderated by the Chief Examiner. Raw marks of Part A and Part B were added to generate a final raw mark out of 20, then the penalty/special consideration marks are added.

Mark cut offs for each grade were set after assessing the quality of responses and expectations for a student at the Actuary level.

Grade distribution

Grade	Part A	Part B	Overall	S2 2021 %	S1 2021 %
Significantly above pass level	27	35	26	36%	42%
Above pass level	22	18	25	34%	42%
Pass level	12	10	14	19%	16%
Below pass level	12	9	8	11%	<1%
Significantly below pass level	0	1	0	0%	0%
Did not attempt	0	0	0	0%	0%

General comments

The assessment was a test of knowledge and application. A student with knowledge of the materials only could readily achieve a 50% mark. However evidence of both knowledge and the ability to apply was needed for a higher result. Students had to demonstrate the ability to apply information to a new situation and communicate clearly, in order to pass.



Below Pass level students did poorly on one part and were pass or below on the other part, indicating insufficient knowledge of the materials. **Pass** level students were either at a pass level on both parts, or had a one part above pass to offset one part below pass. This suggests a lack of breadth of knowledge of the materials (Part A) or weak at supplying sufficient detail in the answers (Part B). **Above Pass** and **Significantly Above Pass** students (the majority of students) showed a good grasp of the materials, provided sufficient detail in their answers and were more consistently able to apply their knowledge in an unfamiliar context.

The exam assessment will test knowledge, application, and higher order thinking. **Students who only achieved a pass grade in this assessment will have to improve their application and thinking skills to pass the exam.**

Part A questions were largely bookwork and designed to assess if the student had read and understood the materials in modules 1 to 7 and were able to read and interpret questions. 61 students passed this part. Notably:

- questions relating to the market indices, investment governance, credit risk and the central bank role had less than 60% of students answer correctly; and
- only four questions were answered correctly by at least 90% of students.

The Part B questions were designed to assess if the student could apply the materials to specified situations. The stronger candidates:

- attempted all the questions
- clearly linked each point being made to the particular situation given, rather than simply restating the learning materials;
- recognised that the most appropriate market index was XTX and supported this with valid reasons.

The weaker responses:

- did not answer some questions or their answers were too brief to gain full marks
- stated inflation was the main risk in Q1, failing to note that the stated goal is inflation. (Going on to state that the risk was hyperinflation or an asset bubble or higher inflation than targeted, would have gained the mark.)
- 2(a) blank or answered incorrectly, 2(b) answers too vague or incorrect for situation (e.g. short selling)



- 2(c) answers were too brief or incorrect (e.g. superannuation)
- 2(d) answers were too brief or recommended XAO without giving valid reasons.

Format

A time bound online assessment was used to mimic the experience of an online exam and build the student's confidence with this approach, as well as test the capabilities of the LMS system for online quiz style questions.

All students successfully logged in and completed both parts of the assignment in the given time. A link to Part B was not working initially which held up 5 students and reduced their access time. Their work was reviewed and each was given +1 mark (10%) to recognise the shorter period of time available to complete the questions. This increased one student from below pass to a pass overall, there was no impact on the other students' grades. Several students were concerned their upload was not successful, but all scripts were received. Two students failed to name or format their submission file correctly but were not penalised this semester. Penalties may be applied in future semesters.

Students are reminded again that they must correctly name and format their files for the exam.



Part A Guidance

Answers to the Part A questions will be discussed in brief at the revision tutorial. The specific learning objectives covered are shown in the table.

1.1	Explain, in general, actuarial models as part of actuarial advice, their inputs and outputs, and how they are affected by professionalism and the external environment
1.3	Outline the elements of effective investment governance
1.4	Understand and apply the complexity of competing investment theories through describing Kuhn's philosophy, the roles of exemplars, distinguishing between causation and correlation, and the Duhem-Quine thesis
2.1.	Discuss the role of government monetary and fiscal policy
2.2.	Explain how the majority of money is created in the modern economy
2.5.	Explain the principal economic influences on investment markets
2.7.	Describe the construction and uses of market indices
2.9.	Distinguish between primary and secondary markets
3.1.	Describe the characteristics of the three principal asset classes
3.2.	Discuss the components and drivers of the three principal asset classes' risk and return
3.3.	Apply and critique valuation methods including discussing assumptions and evaluating limitations

Part B Guidance

For each question, we have provided the learning objective, module references, comments on the approach to marking and a sample answer. Note there are other answers that would have obtained full marks. The specific learning objectives covered are shown in the table.

2.3.	Explain the implications of quantitative easing (M3)
2.7.	Describe the construction and uses of market indices (M4)
2.10	Explain the process of firms moving from start-up through to taking private firms into the public domain (M4)



1. A central bank has a mandate to keep inflation rates within a target band. Historically, it has applied the traditional monetary policy of managing market interest rates through setting overnight cash rates for banks and trading in government bonds.

After a major economic shock, the central bank reduced the overnight cash rate to 0.05%pa and three months later inflation is negative 1.0%pa. The central bank elects to shift to a policy of quantitative easing (QE), that is, steadily buy government and corporate debt from investors to inject money into the economy.

Explain the two main risks of implementing quantitative easing..... [2 marks]

Answer:

- The policy being more effective than intended, spurring hyperinflation [.5], which may happen due to delay between implementation and impact (overshooting) [.5] or
- The policy not being effective enough, if banks (and non bank investors) opt simply to pocket the additional money in order to increase their capital reserves (or cash holdings) [.5]. Then there is no spending and no inflation drivers. [.5]

Learning objective 2.3 Module 3 Bank of England readings

1 mark for each of these two points if explained properly.

0.5 mark if just "hyperinflation" without explanation

0.5 mark if just "no impact" without explanation

2. A healthcare technology provider (HTP) began with two founders in 2017. HTP history is shown.

- a. Calculate how much equity capital has now been invested into the company so far? [1 mark]

Answer:

$\$0.5 + \$0.5 + \$6 = \7 million

Learning Objective 2.7, 2.10 Module 4 page 38

1 mark if laid out the components and summed correctly, 0.5 mark if just \$7 million

\$10m (Current valuation) or \$12m (allowing for the wishful \$5m) are INCORRECT



- b. HTP is too small for a public listing at this time. List three other options available to raise the \$5 million for the company [1 mark]

Possible answers:

- Further private equity placement, private preference shares (any option relating to private equity)
- Corporate debt, private debt, debenture (any option relating to corporate debt)
- Bank business loan, overdraft (Any option relating to bank lending)
- Convertible note (or any other plausible option)

Learning Objective 2.7, 2.10 Module 4 page 38

Show understanding of alternatives to public listings to raise capital

1 mark if 3 distinct options 0.5 mark if only 1 or 2 distinct options

- c. The two founders are not ready to dilute their control of the company. Recommend one option for the capital raising and identify three pros and three cons for that option [3 marks]

Sample answer:

I recommend a **business loan**

Pros

- Interest rates fixed or fixed above a base rate (eg LIBOR) [.5] so reasonably predictable cost of funding
- No change to board composition or shareholder composition [.5]
- Founders remain in control, [.5]
- Retain VCF as an owner and access to their expertise[.5]

Cons

- however may have to pay considerable risk premium ie higher interest rate on the debt than cash rates [.5]
- Have to make regular repayments



- Bank may want some form of security eg rights over the intellectual property, mortgages over the directors personal assets [.5]
- if any financial difficulties bank may not be a patient investor and call in the loan [.5]
- Bank has first call on assets in the event company fails [.5]

Alternative answer:

I recommend **convertible notes**.

Pros:

- Some flexibility in setting note value, and number of investors etc [.5]
- As no additional shares are issued, this will not dilute ownership/control of the founders (in the short term) [.5] and
- the founders do not have to increase their exposure. [.5]

Cons:

- There will be interest payments on the debt. This will be a cost to the company and reduce profit . [.5]
- The interest rate will likely be high because the company is relatively small and young, so deemed more risky by lenders. [.5]
- The ownership may be diluted once the shares convert into equity. [.5]

Learning Objective 2.7, 2.10 Module 5, p 41-43 Module 6, p 17 - 19

Having selected an option, provide three relevant discussion points for and against that option. Expected to make points that are relevant to our example founders requirements.

Two possible options shown, other options may be possible.

0.5 per sensible point, maximum 6 points or 3 marks

Presenting an option that dilutes control, or requires founders to contribute more capital, without commenting this is a 'con' for the founders can gain a maximum of 2 marks.



- d. The VCF are keen to benchmark the performance of the stock against an Australian market index until such time as the company is itself listed – consider the three ASX indices below and recommend one giving your reasons. [3 marks]

Sample Answer:

I recommend the XTX index because

- HTP is currently relatively small, market value \$10 million, so would not be included in any of these indices if HTP was listed. So there is no immediate match. [.5]
- It is reasonable to benchmark HTP to similar companies, that is, small, start ups in the technology sector. [.5]
- It is inappropriate to compare its performance to the largest and long standing companies in Australian (especially as All Ords dominated by banking and natural resources. [.5]
- Makes sense to compare to other companies in the same sector, so ASX IT or XTX. [.5]
- It will be a very long time before it is eligible for the top 200 in the ASX market - the ASX IT group are far larger businesses. [.5]
- ASX IT has very few companies and dominated by one, not realistic to benchmark HTP to much larger established technology companies at this stage. [.5]
- By market cap, HTP is more closely aligned to XTX companies than ASX IT companies. [.5]
- The XTX index consists of its peer group (smaller companies providing technology services, many recently listed, with business plans for rapid growth). [.5]
- When HTP lists and reaches the market cap criteria it will become part of this index before it becomes part of ASX IT. [.5]
- VCF, as a venture capitalist, could invest in other start up stocks as an alternative to HTP, so makes sense this group of smaller recent start ups is their benchmark. [.5]

Learning Objective 2.7, 2.10 Module 4, p 46-47

Expecting XTX to be recommended, but if another one is recommended then reasoning must support the one selected and be plausible.

More points shown in the sample answer than are required for full marks.

0.5 per point max 6 points = 3 marks