



Institute
and Faculty
of Actuaries

EXAMINERS' REPORT

SP5 - Investment and Finance

Specialist Principles

September 2022

Introduction

The Examiners' Report is written by the Chief Examiner with the aim of helping candidates, both those who are sitting the examination for the first time and using past papers as a revision aid and also those who have previously failed the subject.

The Examiners are charged by Council with examining the published syllabus. The Examiners have access to the Core Reading, which is designed to interpret the syllabus, and will generally base questions around it but are not required to examine the content of Core Reading specifically or exclusively.

For numerical questions the Examiners' preferred approach to the solution is reproduced in this report; other valid approaches are given appropriate credit. For essay-style questions, particularly the open-ended questions in the later subjects, the report may contain more points than the Examiners will expect from a solution that scores full marks.

The report is written based on the legislative and regulatory context pertaining to the date that the examination was set. Candidates should take into account the possibility that circumstances may have changed if using these reports for revision.

Sarah Hutchinson
Chair of the Board of Examiners
December 2022

A. General comments on the aims of this subject and how it is marked

The aim of this Investment and Finance Principles subject is to instil in successful candidates the ability to apply, in simple situations, the principles of actuarial planning and control to the appraisal of investments, and to the selection and management of investments appropriate to the needs of investors

A mix of questions styles is used, covering *knowledge* of the material set out in Core Reading, *application* of this in calculations and case studies and *higher order skills* such as synthesis and collation of recommendations. Marks are awarded for the constituent elements of calculations, not just for the final answer generated. Scenario appraisal will similarly provide credit for evidence of the issues considered, not solely for the conclusions reached. There is necessarily an element of subjectivity in the answers and candidates who make well-reasoned points, not in the marking schedule, are awarded marks for doing so.

The examiners want to test the understanding of the candidates in relation to the principles of investment. In order to do that the candidates will be asked to demonstrate that they know how investors might behave and what various terms mean. It also requires candidates to calculate and interpret certain investment related figures. It is not expected that the candidates are experts in the investment area, however they should have an overall understanding of investment markets and the function and needs of the various parties involved.

B. Comments on candidate performance in this diet of the examination.

The pass mark for this subject was set as a reflection of what the examining team felt a candidate needed to score for them to be considered competent in this diet of the exam.

Candidates generally performed well in this diet of the examination and all questions were well answered by candidates that had the required knowledge.

Candidates should look to see how many marks are being awarded for each part of the question, if eight marks are being awarded substantially more information is required than if two or three marks are available. Where information, or a particular scenario, is given in a question e.g., the mining industry was referenced in question four, then any solution should take that into account.

C. Pass Mark

The Pass Mark for this exam was 64
255 presented themselves and 119 passed.

Solutions for SP5 - September 2022

Q1

(i)(a)

Calculate the yield on the bond to three decimal places

Calculate price using ZC yields to discount each cash flow:

$$P = 2.5 \times {}_1v + 2.5 \times {}_2v^2 + 2.5 \times {}_3v^3 + 2.5 \times {}_4v^4 + 102.5 \times {}_5v^5$$

where ${}_xv$ is the ZC yield over x years

$$P = 108.097 \quad [1]$$

Calculate GRY that corresponds to the same price

$$108.097 = a_5 + 100 v^5 \text{ at rate } j$$

$$j = 0.839\% \text{ or } 0.840\% \quad [1]$$

(b)

Calculate the par yield to three decimal places

Par yield is coupon that, when discounted at ZC rates given, leads to price = 100

[1 mark for demonstrating understanding of this principle)

$$\text{Par yield} = 0.846\% \quad [1]$$

$$\text{If use continuous rate of interest then Par yield} = 0.850\% \quad [1]$$

[Total 4]

(ii)

This is a form of immunisation [½]

As assets and liabilities are closely matched [1]

The assets and liabilities should move in same direction for uniform change in interest rates [1]

Although the asset value is lower the duration is higher [½]

So assets and liabilities should change by similar amount [½]

But only for small changes in interest rates [½]

The shape of the liabilities are likely to be significantly different to those arising in the bond fund [1]

The index used in the index tracking will determine how effective the hedge is [½]

There is no cash flow matching [½]

So timing risk (e.g., assets may need to be sold to meet large short-term liabilities). [½]

Reinvestment risk when bonds in portfolio mature [½]

This means the matching portfolio will need to be monitored and adjusted from time to time [½]

Volatility increases as interest rates fall [½]

Prevailing rates low, but could go lower and closer monitoring needed if they fall further [½]

So buy and hold not a suitable approach [1]

Match not precise if shape of yield curve changes [½]

If long rates rise more than short rates, asset value falls by more than liabilities
(or other suitable example) [½]

Proposal likely to provide only an imperfect match with liabilities [½]

Whether matching is likely to be adequate, depending on reason [½]

There may be more effective strategies, possibly through the use of swaps [½]

Or repos [½]

There is a small a small credit risk involved with government bonds [½]
 [Marks available 13, maximum 8]

(iii)

Strength of covenant [1]

If strong, perfect matching or excess returns not needed [½]

If weak, may need to reduce reliance on employer funding by seeking higher returns [½]

The trustees should consider if the funding shortfall period of 3 years is satisfactory and permitted under the appropriate legislation [½]

Reason for hedging will determine required accuracy of hedge [½]

e.g., it may not be accurate enough if, say, buy-in / buy-out is anticipated [½]

The trustees should consider if the proposed funding of the shortfall is permitted by the regulations governing the scheme [½]

Decide if other approaches would be more suitable [½]

The trustees should undertake an ALM exercise prior to deciding on a strategy. [½]

If the pension liabilities are linked to inflation then any backing assets should also be linked to inflation [½]

[Marks available 5½, maximum 3]

[Total 15]

Part (i) of the question was well answered by well-prepared candidates, however it proved more problematic for the others. Part (ii) proved the most difficult part and produced the lowest marks; this part was worth 8 marks so the answer required a few more points to be made than was generally the case. Few candidates gave an opinion as to whether the strategy was effective for hedging interest rate risk i.e. buy & hold was not a suitable approach. Part (iii) was better answered than part (ii), however only the better candidates mentioned the strength of the covenant.

Q2

(i)

General commentary on alternatives investing:

Expected return net of costs and taxes [½]

Impact on net level of risk in portfolio [½]

Expected correlation and its effect on the diversification in the portfolio [½]

Governing document rules permitted? [½]

Regulations permitted? [½]

Relevance. Is the expected future behaviour of the asset going to match the behaviour of the liabilities? [½]

Maturity of pension fund. Lots of pensioners or still relatively immature? [½]

The time horizon of the scheme [½]

Listed? Valuation maybe by reference to the “clean” price of bonds formula. How do the metrics change? [½]

Liquidity. Marketability of asset [½]

Income generation. Is there a future stream of income generated by the asset? [½]

Custody. What are the holding costs of keeping the asset safe? [½]

Costs. Trading costs: purchase and sale [½]

Tax. How is the income and capital gain treated? [½]

Fx. Is the asset priced in the same currency of the liabilities? [½]

Skills. Do the trustees have the necessary skills to trade the asset and understand the assets investment potential?	[1/2]
Availability & costs of external management. Competitive market? Acceptable cost?	[1/2]
Existence of benchmarks. How do you measure relative performance?	[1/2]
Existence of derivatives. Can it only be held physically?	[1/2]
Effective use in securitisation. Can it be used as collateral?	[1/2]
The cashflow profile of the assets	[1/2]
Will further investment be required or will cash be returned	[1/2]
The risk appetite of the fund	[1/2]
The past volatility of the asset	[1/2]
The percentage of the portfolio that will be invested in these assets.	[1/2]
Does the asset meet to ethical considerations of the fund	[1/2]
The attitude of the plan sponsor	[1/2]
The level of funding	[1/2]

[Marks available 14, maximum 7]

(ii)

The regulatory position of these assets may differ depending on the country that the pension fund is operating in	[1/2]
However at least one of these asset types may be specifically excluded from the list of permitted assets	[1/2]
It is also possible that trust deeds are silent in most cases	[1/2]
The tax position of these assets may also vary from country to country	[1/2]

	Private equity	Art	Crypto
Returns	Expected to be higher than listed equity	Driven by sentiment; Uncertain	Little historic evidence, but high since inception
Risk/volatility	Similar to listed equities	Serial correlation makes volatility low between occasional periods of troughs and peaks	Little historic evidence to go on
Correlation	Similar to equities	Inflationary effects make it behave like equities; potential lags; arguably uncorrelated	Uncorrelated with other asset classes
Relevance to liabilities	Equity-like, so likely to be relevant	Long term growth, but stability affected by market sentiment	Little historic evidence, but potential for diversification benefits to reduce volatility through low correlation
Maturity	Long term fundamentally, although exit rules might indicate shorter term nature	Long term	No clear evidence

Valuation	Unlisted, but corresponding listed equities give indications	Auction houses and market experts can provide guidance. Subjective	Trading platforms
Marketability	Through funds - OK Direct holdings - timing is not always easy to match to available investment cash or realisation requirements	Cannot rely on liquidity to match cash-flows	Trading platforms; volatile activity could be challenging
Income generation	Potential for dividends; but some will not pay until after future IPO; may require additional cash from investors	None	None
Custody	Share register	Expensive; need to add insurance costs	Trading platforms; caution over hacking risk
Trading costs	Equity like; performance fees can appear high (2% & 20% type arrangements)	Auctions costs	Trading platform costs
Fx	Can find in local currency to avoid mismatch	Local currency; most valuable items typically in US\$	US\$ - mismatch against any other non-pegged currency
Skills	Equity like	Expertise required	Expertise required, but who can prove reliable expertise?
Benchmarks	Corresponding equity index; survivor bias in past performance	Bespoke indices produced by auction houses	None
Derivatives	Unlikely, so must be held physically	Unlikely, so must be held physically	Traded notes; mutual funds
Securitisation	Many of those viewed to be higher quality	Selectively	Unlikely

(½ mark per point)

[Marks available 24½, maximum 9]

[Total 16]

This was a reasonably straightforward question and most candidates scored well in part (i), while marks were lower in part (ii) they were still very good. This was helped, in part, by the number of marks being available.

Q3

(i)

Liquidity: mismatch of cashflows	[½]
Fx: mismatch of currencies	[½]
Diversification failure: increased correlations	[½]
Market risk	[½]
Interest rate risk - rates moving in a different way to that expected	[½]
Timing risk: Market collapses at inopportune times:	[½]
Accounting dates	[½]
Or when liquidity is needed	[½]
Counterparty failures within derivatives	[½]
Impact of climate change	[½]
Bond/property defaults: coupons/rents & maturities/market values	[½]
Benchmark failure: mismatch to liabilities	[½]
Relative performance risk - Manager failures: poor performance	[½]
Excessive trading costs	[½]
Changes in tax rules	[½]
Changes in regulations	[½]
Failure to make adequate return to meet any guarantees	[½]
Can't buy appropriate assets to adequately back liabilities e.g. can't get assets with a long enough term	[½]
Duration risk	[½]
Inflation risk	[½]
Reinvestment risk	[½]
Basis risk	[½]
Cross hedging risk	[½]
Obsolescence risk	[½]
Solvency risk	[½]

[Marks available 12½, maximum 6]

(ii)

A number of the risks can be managed by regular monitoring	[1]
And modelling	[½]
And stress testing against severe events	[½]
And by imposing limits on any potential mismatches	[1]
This includes credit worthiness of counter parties	[½]
And limits on total exposure to an asset or counterparty	[½]
If limits are breached then corrective action should be taken	[½]
An LDI strategy could be adopted	[½]
This may include immunisation	[½]
Real assets can be used to protect against inflation	[½]
And currency risk can be mitigated by using hedging	[½]
Regular reporting is required.	[½]
And well trained staff.	[½]
Timing risk could be mitigated with the use of portfolio protection policies such as the use of derivatives.	[½]
Though this may introduce other risks associated with the use of derivatives	[½]
The selection of appropriate benchmarks will help to reduce the risks associated with a mismatch between the assets and liabilities	[½]

This would include holding adequate cash to meet liabilities as they fall due	[½]
The selection of fund managers should involve rigorous analysis	[½]
This will help reduce the chances of underperformance	[½]
The impact of climate change will be difficult to protect against, investing in green investments may help	[½]
Changes in regulation or taxation are often difficult to predict and once known the life company would need to take any appropriate action.	[½]
The impact of taxation changes may be minimised by using tax efficient vehicles	[½]
	[Marks available 12, maximum 6]
	[Total 12]

This type of question has been asked in different forms in the past, so it was surprising that candidates didn't score more highly. While it wasn't the question candidates struggled with the most, it also was somewhat short of the best answered. Part (i) asked for investment risks not all risks, so risks such as longevity and operational didn't gain marks.

Q4

(i)

Growth by acquisition rather than organic may be preferred or easier	[½]
It could be a defensive strategy, by getting bigger ABC becomes less likely to be a target itself	[½]
As bigger companies may attract regulatory attention	[½]
Meaning anti-trust/monopoly rules will prevent ABC being acquired in the future	[½]
This may be a response to similar actions by other mining companies	[½]
Or because the mines of ABC are becoming exhausted/depleted	[½]
Or to enable ABC to access to new markets	[½]
The Asian company may have technology that ABC would like to use elsewhere and the acquisition will allow this technology to be transferred	[½]
Equally it may enable ABC to access the R&D within the Asian company.	[½]
Or to increase ABC's management ability	[½]
The Asian company may have a better sales & distribution network.	[½]
And enable ABC to expand the markets for its products	[½]
Especially if the markets for ABC's products are dwindling	[½]
The target may a turnaround opportunity for ABC	[½]
There may be economies of scale meaning costs can be lowered	[½]
There may be pressure on ABC's management from the market to be seen to be proactive	[½]
Or they may have excess cash which they need to utilise	[½]
The Asian company may have access to different resources which may be more Attractive so allowing ABC to diversify	[½]
For instance the minerals may be more easy to extract	[½]
The acquisition may enable ABC to acquire a larger market share in same resources and therefore mean they have greater pricing power	[½]
The acquisition price may be attractive	[½]
And allow ABC to increase its profitability e.g. EPS	[½]
Or the regulatory/legal regime may be more attractive	[½]
It may enable ABC to avoid tariffs	[½]
Or allow them to use taxable losses that have been generated	[½]

[Marks available 12½, maximum 5]

(ii)	
ABC may have overpaid	[½]
ABC may not achieve financial metrics:	[½]
if revenue or cost targets/expectations are not met then corresponding profit targets and distributions may not be achieved - these will undermine the basis for the takeover and investment	[½]
The deal may take a long time to complete	[½]
This may mean the environment has changed making the deal less attractive	[½]
 Fx issues:	[½]
future assumptions will be made about the expected foreign exchange levels for revenues and inputs; to the extent that these are not hedged appreciation or depreciation of currencies in ways that were not expected will affect the profitability	[½]
Political interference:	[½]
local activists may object to the acquisition for fear of employment issues	[½]
national government may view the industry as a protected industry and block the acquisition	[½]
 Tax issues:	[½]
The financial model will be based on assumptions for future taxes in the country of the target and the home country; either may change in the future and change the after profit result	[½]
 Anti-trust (competition regulations):	[½]
Competition and monopolies regulations may hinder the acquisition if the size of the new company is seen to be too big and potentially creates a unfair market for customers	[½]
Liquidity to raise purchase price:	[½]
The company may not have the necessary cash to make the purchase when required	[½]
 Lending costs if purchase price is borrowed:	[½]
The terms & conditions for the raising of finance (especially the interest rate) may be more expensive than in the initial financial model assumptions, changing the profitability of the acquisition	[½]
 Management team of target walk away:	[½]
Part of the rationale for buying the target company will probably have been the quality of the management team, if key individuals leave then the company may not perform so well in the future reducing its profitability and/or not achieving the other model metrics	[½]
Even if the management stay there may be cultural clashes	[½]
Or language barriers	[½]
 Market demand for the resources:	[½]
Revenue projections will have been based on projections of demand for the target mine resources; if market demand falls, for example due to broader reduced demand	[½]
Some customers may prefer to deal with Asian companies and move their business away	[½]
or there may be better alternatives elsewhere	[½]

Market prices of resources fall:	[1/2]
This will reduce revenue	[1/2]
unless the fall in prices is matched by compensating larger sales volumes	[1/2]
SRI issues:	[1/2]
poor publicity associated with investing in target country could affect demand, reducing revenue versus forecasts	[1/2]
Not all shareholders accept:	[1/2]
Listing requirements may demand a minimum level of acceptances before a full acquisition can be enforced. May need to raise price offered to capture enough commitment, reducing the overall profitability of the acquisition	[1/2]
Competitive bids from other parties:	[1/2]
Others may also bid for the target meaning a higher price may need to be offered reducing the profitability of the acquisition	[1/2]
There may be a technological change that reduces the demand for the ore that the Asian mine produces	[1/2]
Climate change may have a negative influence on either the demand for the ore from the Asian mines or the ability to extract the ore from the ground	[1/2]
Or a natural disaster that results in a mine collapsing	[1/2]
	[Marks available 19, maximum 6]

(iii)	
If the company is listed, the market capitalisation could be a starting point	[1]
However this may have been artificially raised if the potential bid by ABC was known to the market	[1/2]
There may be other factors that may have depressed or elevated the Asian company's market capitalisation	[1/2]
Given competitive pressure from other potential buyers and to provide sufficient incentive for existing shareholders to sell, ABC would need to determine a premium over the market share price	[1/2]
They may look at the premia paid in other deals	[1/2]
Or the valuation of such deals	[1/2]
The PE ratio (current and forward looking) could be calculated	[1/2]
And compared to similar companies based on historic earnings of target and expected future earnings	[1/2]
Any valuation should factor in the acquisition costs and any savings that can be made after the takeover	[1/2]
The net asset value (NAV) could be calculated	[1/2]
Fixed & current assets less liabilities	[1/2]
ABC could produce a discounted cash flow model of the target company to produce a net present value (NPV) and use this as a basis of valuation	[1/2]
This would depend on ABC having sufficient access to the financials of the target company	[1/2]
An alternative would be a dividend discount mode	[1/2]
However, this would be dependent on the dividend distribution policy of the target company	[1/2]
Any valuation requiring discounting will be heavily dependent on the discount rate used.	[1/2]

And adjustments will be needed to reflect such things as financial structure of the target company

[½]

[Marks available 9, maximum 4]

[Total 15]

This was a well answered question with candidates scoring very highly in part (i), helped by the large number of marks that were available. The most common error was to write an answer with little reference to the question, the question asked about mining companies, however some candidates answered as if the scenario related to financial companies.

Part (iii) was the question on the paper that candidates struggled most with, many candidates did not mention that an Asian company may be quoted.

Q5

(i)

There are two ways of calculating the relative return over the five years, the first subtracts the index return over five years from the fund's performance over five years. The second compounds the relative return for each year both methods are shown below.

Fund	Return over 5 years	Relative return over 5 years	Annualised relative return
A	24%	5.2%	1.02%
B	23%	4.1%	0.80%
C	28%	9.4%	1.82%
D	22%	2.9%	0.57%
Index	19%		

Or

Fund	Relative return over 5 years	Annualised relative return
A	4.5%	0.89%
B	3.5%	0.70%
C	8.3%	1.61%
D	2.5%	0.50%

In either case 1 mark is given for each fund performance that is correctly calculated.

[Marks available 4]

(ii)

The Jensen measure is given by:

$$J = R_p - R_b$$

Where $R_b = r + \beta_p (R_m - r)$ and R_p is the return on the portfolio

r is the risk-free rate of return over the period;

R_m is the return on the market;

and β_p is the systematic risk of the portfolio. [1]

Again there are two answers depending on which route was taken in part (i)

If using the return over five years the calculation is as follows:

Jensen Calculation

Fund	Five Year Return	β_p	$R_m - r$	$\beta_p (R_m - r)$	$r + \beta_p (R_m - r)$	Jensen
A	1.24	1.6	0.11	0.18	1.25	-1.4%
B	1.23	1.2	0.11	0.13	1.21	1.8%
C	1.28	2	0.11	0.22	1.30	-1.6%
D	1.22	1.6	0.11	0.18	1.25	-3.7%

If using the annualised returns the calculation is as follows:

Fund	Co Variance with Index	Annualised Five Year Return	β_p	$R_m - r$	$\beta_p (R_m - r)$	$r + \beta_p (R_m - r)$	Jensen
A	0.4	1.044	1.60	0.02	0.03	1.05	-0.3%
B	0.3	1.042	1.20	0.02	0.02	1.04	0.3%
C	0.5	1.051	2.00	0.02	0.04	1.05	-0.4%
D	0.4	1.040	1.60	0.02	0.03	1.05	-0.7%
Index	0.5	1.03					
Risk free rate		1.015					

(1 Mark for each fund, if the β_p is calculated correctly for all the funds but the Jensen measures are incorrect then 1 mark may be awarded)

[Maximum 4]

(iii)

According to Modern Portfolio Theory (MPT) the Jensen measure is an appropriate measure of risk adjusted performance when the portfolio represents a subset of the investor's assets [1]

In this case we are told that the investor has a diversified portfolio of assets and therefore equity portion only represents a part of their wealth and so using the Jensen measure is appropriate [½]

The reason for this is that beta is a measure of a portfolio's risk relative to a well

diversified portfolio [½]
 So adjusting the return using beta indicates how good the manager is at picking
 outperforming stocks [½]
 Given the level of systemic risk assumed [½]
 The risk is also pre-specified and so the appropriate measure is the relative return
 compared to the fund's benchmark [1]

[Marks available 4, maximum 2]

(iv)

The Treynor measure [1]

(v)

All the fund managers outperformed the index over the 5 years [1]

They also outperformed the risk-free rate of return [½]

With manager C producing the best performance [½]

However C's performance was very erratic producing a very high return in year 5 but a
 negative return in year 2 [½]

Hence once the risk adjusted performance is looked at then manager B looks the most
 attractive [½]

B has produced much steadier returns over the 5 years hence they look more attractive using
 a risk adjusted measure [½]

(Marks may be awarded for other valid comments)

[Marks available 3½, maximum 2]

(vi)

The choice of fund manager will depend on the investors risk tolerance [1]

Having previously invested in a tracker fund it might be supposed they are risk averse
 so Fund B might be the most attractive fund for the investor [1]

However it should be remembered that past performance isn't necessarily a predictor of
 future performance [1]

Fees and taxes also need to be considered when assessing the performance. [½]

The investment style of fund manager should also be ascertained [½]

*(Other answers are acceptable if good reasons are provided. If a candidate has
 produced a different answer in (i) or (ii) then marks should be awarded in (v) & (vi)
 if their comments are valid)*

[Marks available 4, maximum 3]

[Total 16]

*This was the best answered question on the paper with candidates scoring well in parts
 (i), (iv) and (v) with satisfactory answers given in parts (ii) & (iii). The answers to part
 (vi) often failed to identify the most appropriate fund for the investor.*

Q6

(i)

Physical risks - these are the risks associated with the direct impact of climate change [1]

Often associated with extreme weather events [½]

These also include longer term long lasting impacts relating to such things as rising
 water levels and changing rainfall patterns. [½]

Transition risks - these are risks arising from the shift from older less green Technologies to greener technologies	[1]
This may also include policy changes by governments	[½]
Or changes in consumer behaviour as they move to become greener	[½]
Liability risks - these are risks relating to compensation being demanded for damage being caused by climate change	[1]
The claimants are seeking to blame an industry or a company for causing the climate change that caused them loss or injury	[½]
If companies fail to consider climate related risks, they may become involved in legal claims for redress	[½]
These risks include the risk of breaching regulations	[½]
	[Marks available 6½, maximum 6]

(ii)

Car manufacturer

Physical risks:

The locations of the plants are very important	[1]
Are they more likely to be impacted by flooding either from heavy rainfall or rising sea levels	[½]
The supply chain and distribution networks are also important	[1]
As it is an international company it is likely to move both the raw materials and the finished goods across large distances	[½]
These networks can be disrupted by severe storms or other metrological events	[½]
Climate change may also result in changes in demand for certain types of car which may impact the car manufacturer	[½]
It may also result in a lower overall demand for cars as consumers are encouraged to use public transport etc	[½]

Transition risks:

If the manufacturer is already producing electric cars, then the transition risks will be lower than if they are not producing electric cars	[1]
Even if they are producing electric cars there is a risk that this technology is super Ceded e.g. hydrogen powered cars	[½]
If the manufacturer is not producing electric vehicles then there are risks associated With the design and production of electric vehicles	[½]
This will include retraining the workforce	[½]
and rebuilding the production line	[½]

Liability risks:

The main liability risk might be that the manufacturers are sued for the pollution their vehicles produce	[1]
Other issues might include the pollution produced by the manufacturing process	[½]
This would be an industry issue rather than specific to one manufacturer	[½]
And might be very difficult to quantify	[½]
However it is likely to vary greatly depending on the country in which the car manufacturer is operating e.g. much higher in North America.	[½]
<i>(Other valid points were given credit)</i>	

[Marks available 10½, maximum 8]

[Total 14]

Overall this question was satisfactorily answered, however there was a big difference between the two parts with part (i) being very well answered, whereas in part (ii) candidates often failed to apply their knowledge to the example in the question.

Q7

(i)

Alpha is the percentage movement of a stock or fund above or below a risk adjusted return [1]

While beta indicates how volatile a stock or fund is relative to an index or benchmark [1]

Or beta measures the systemic risk of a stock or portfolio compared to an index [1]

(If candidates refer to the market rather than an index or a predefined rate of return the should only get ½ mark)

[Marks available 3, Maximum 2]

(ii)

The aim of an absolute return fund is to provide investors with a positive return irrespective of what the underlying markets return [1]

The fund manager will need to determine the objective e.g. to exceed the return Produced by investing in a bank deposit [½]

They can invest in many different assets [½]

Including equities, bonds, currencies and derivatives [½]

So the fund manager will need to decide which markets they wish to use [½]

And determine if they have staff with appropriate expertise [½]

They will also need to determine the level of fees [½]

Bearing in mind that the fees will reduce the return that investors receive [½]

Other items that need to be considered are:

Whether the fund can use gearing [½]

How will the fund deal with income, will it be distributed or retained [½]

How often the fund will be valued [½]

Where the fund is domiciled as this will impact the tax paid [½]

There are several ways fund managers can achieve this result [½]

The first is via long/short strategy whereby the fund will go long one stock and short another [½]

In order for this to be successful the fund manager would need to be confident that the long position outperforms the short position [½]

Often the two assets are closely related e.g. in the same sector and are therefore impacted by the same external influences [½]

However the fund manager has identified a significant difference and believes that this will mean that the asset they go long of will outperform the asset they short [½]

Alternatives to this could be for the manager to buy protection for the portfolio [½]

or for individual positions via the derivatives market [½]

The managers often look for uncorrelated assets or assets with a negative correlation [1]

Less volatile assets are also often preferred [½]

[Marks available 11½, maximum 5]

(iii)

The first issue the fund manager may face is attracting money into the fund [1]

They will also need to ensure they have managers with the required skill set and that they retain these managers	[½]
Especially if the fund manager doesn't have a track record in this area	[½]
The fund manager also must choose an appropriate performance target	[½]
And the time period over which they wish to be judged	[½]
At times when markets are strong investors may prefer the higher returns that relative return funds are offering	[½]
There will also be operational issues such as:	
Monitoring and controlling counterparty risk	[½]
Managing the liquidity position with respect to derivative portfolios and collateral accounts	[½]
Ensuring that the correct custodian services are being used	[½]
Deals are settled correctly and in a timely manner	[½]
They may also get the long/short pairing stock selection wrong	[½]
It may be difficult to find ways to hedge/mitigate the market risk due to correlations not being stable and derivatives not being available	[½]
Or low short term interest rates giving very poor risk-free returns	[½]
There may also be excessive bank exposure for money on deposit or in money market investments	[½]
Assuming enough money is invested then in the first couple of years it is very important that the fund manager delivers a positive performance	[½]
If the fund proves successful it may attract large investments which may make it more difficult to exploit the opportunities the managers identify	[½]
After charging any fees and expenses	[1]
Often the fees can be significant	[½]
If markets fall sharply the fund manager's positive return may be very low and be wiped out by the management charges	[½]
In order to provide absolute returns fund managers often invest in less liquid assets which could cause problems should clients wish to withdraw money	[½]
If the fund holds cash to provide liquidity for investors this may act as a drag on performance	[½]
If absolute returns become popular then the price of assets that are attractive to such funds are either likely to be less available or priced more expensively thus limiting the ability of the fund manager to make a satisfactory return	[½]
If the market is too competitive then there may be very little alpha to generate	[½]
Therefore the manager might not be able to meet their fund performance target	[½]
	[Marks available 13, maximum 5]
	[Total 12]

Part (i) was well answered as it was bookwork, however candidates did not perform as well in the other two parts despite there being a large number of marks available. This could be a function of it being the last question, however often candidates did write a fair amount but failed to answer the question.

[Paper Total 100]

END OF EXAMINERS' REPORT



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