Chartered Insurance Institute

AF4

Advanced Diploma in Financial Planning

Unit AF4 – Investment planning

April 2018 examination

SPECIAL NOTICES

All questions in this paper are based on English law and practice applicable in the tax year 2017/2018, unless stated otherwise in the question, and should be answered accordingly.

It should be assumed that all individuals are domiciled and resident in the UK unless otherwise stated.

Instructions

- Three hours are allowed for this paper.
- **Do not begin writing until the invigilator instructs you to.**
- **Read the instructions on page 3 carefully before answering any questions.**
- Provide the information requested on the answer book and form B.
- You are allowed to write on the inside pages of this question paper, but you must **NOT** write your name, candidate number, PIN or any other identification anywhere on this question paper.
- The answer book and this question paper must **both be handed in personally by you** to the invigilator before you leave the examination room. **Failure to comply with this regulation will result in your paper not being marked and you may be prevented from entering this examination in the future.**

Unit AF4 – Investment planning

Instructions to candidates

Read the instructions below before answering any questions

- **Three hours** are allowed for this paper which carries a total of 160 marks as follows:

- Section A: 80 marks
- Section B: 80 marks

- You are advised to spend approximately 90 minutes on Section A and 90 minutes on Section B.

- You are strongly advised to attempt **all** questions to gain maximum possible marks. The number of marks allocated to each question part is given next to the question and you should spend your time in accordance with that allocation.

- Read carefully all questions and information provided before starting to answer. Your answer will be marked strictly in accordance with the question set.

- You may find it helpful in some places to make rough notes in the answer booklet. If you do this, you should cross through these notes before you hand in the booklet.

- It is important to show all steps in a calculation, even if you have used a calculator.

- If you bring a calculator into the examination room, it must be a silent, battery or solar-powered, non-programmable calculator. The use of electronic equipment capable of being programmed to hold alphabetic or numerical data and/or formulae is prohibited. You may use a financial or scientific calculator, provided it meets these requirements.

- Tax tables are provided at the back of this question paper.

- Answer each question on a new page and leave six lines blank after each question part.

Subject to providing sufficient detail you are advised to be as brief and concise as possible, using note format and short sentences on separate lines wherever possible.

SECTION A

This question is compulsory and carries 80 marks

Question 1

Read carefully all information provided in the case study before attempting the questions. Your answers should take into account the clients circumstances as set out in the case study. Please carry out ALL of the tasks (a), (b), (c), (d), (e), (f) and (g) which follow.

Ben is a basic-rate taxpayer. Twelve months ago, he invested £162,000 in Combovest, a fund of funds unit trust. Its performance over the period is measured against a composite benchmark (see **Table 1** below) intended to reflect the Investment Manager's income and growth objective.

Combovest has a Sharpe ratio of 1.9 and an Alpha of 1.5.

Ben is disappointed with Combovest's performance over the year, having learned that another fund, Multivest Income & Growth open-ended investment company (OEIC), a manager of managers fund, performed better over the period.

Ben is considering selling Combovest and putting the money into Multivest Income & Growth OEIC (see **Table 2** below).

Ben has come across press articles about unregulated collective investment schemes (UCIS) warning of the risks of such investments and is concerned about his holding.

Table 1

Benchmark	**UK Equity**	**International Equity**	**Sovereign Bonds**	**Corporate Bonds**	**Property**	**Emerging Markets**	**Overall**
Allocation %	25	25	15	15	10	10	9.9
Performance %	4	17	8	11	13	5	
Combovest							
Allocation %	22	31	12	20	5	10	
Performance %	5	15	11	7	6	18	

Table 2
Multivest Income & Growth OEIC

Return	**Market return**	**Risk-Free return**	**Standard deviation**	**Beta**
12%	9%	1.5%	6	2

Questions

(a) **(i)** Calculate, **showing all your workings**, the percentage change in the value of Ben's Combovest holding. **(7)**

(ii) Calculate, **showing all your workings**, the current value of Ben's Combovest holding. **(2)**

(iii) Comment, in detail, on Combovest's asset allocation and fund selection in relation to UK Equity, International Equity and Emerging Markets. **(8)**

(iv) Calculate, **showing all your workings**, Ben's Capital Gains Tax liability if he were to sell Combovest. *Assume Ben remains a basic-rate taxpayer.* **(4)**

(b) Explain to Ben what is meant by a composite benchmark. **(5)**

(c) Using the figures given in **Table 2**, calculate, **showing all your workings**;

(i) the Sharpe ratio for Multivest. **(4)**

(ii) the Alpha for Mulivest. **(5)**

(iii) Explain to Ben how your results calculated in **parts (c)(i) and (ii)** above might affect his plans for Combovest. **(5)**

(d) **(i)** Explain to Ben the main differences between undertakings for collective investment in securities (UCITS), and unregulated collective investment schemes (UCIS) that can result in UCIS having higher risk. **(8)**

(ii) State **five** types of investor to whom UCIS may be promoted. **(5)**

(e) Explain to Ben the safeguarding regulations in place that govern UCITS in respect of:

(i) diversification; **(6)**

(ii) borrowing. **(4)**

QUESTIONS CONTINUE OVER THE PAGE

(f) Ben has learned that Combovest is a fettered fund of funds but is unclear as to the meaning of the term.

(i) Explain briefly the terms fettered and unfettered. **(4)**

(ii) State and explain **one** relative advantage of each approach in your answer from **part (f)(i)** above. **(4)**

(g) **(i)** Explain to Ben how the Multivest manager of managers fund arrangement works. **(5)**

(ii) Identify **two** advantages and **two** disadvantages of the manager of managers arrangement in comparison to the fund of fund arrangement. **(4)**

Total marks available for this question: (80)

Section B questions can be found on pages 8 – 11

SECTION B

Both questions in this section are compulsory and carry an overall total of 80 marks

Question 2

Read carefully all information provided in the case study before attempting the questions. Your answers should take into account the clients circumstances as set out in the case study. Please carry out ALL of the tasks (a), (b) and (c) which follow.

Atique is an experienced investor with an investment portfolio of £400,000 split equally between equities and bonds.

His father has recently died, and Atique has received an inheritance of £300,000 in cash and British sovereign gold coins, equivalent to 100 troy ounces. Atique's father always held 25% of his investments in gold.

Long-term, Atique would like to follow the strategy advocated by his father by increasing his exposure to gold via a listed gold exchange traded commodity (ETC), rather than directly purchasing further quantities of gold coins.

Atique fears, however, that the price of gold may fall in the short-term and is considering hedging his current gold position using the futures market. The price of the three-month gold future contract is £963 per troy ounce.

Questions

(a) State to Atique **six** benefits and **four** drawbacks of gold coins as a component of his portfolio. **(10)**

(b) **(i)** State the main difference between a physical gold exchange traded commodity (ETC) and a synthetic gold ETC. **(2)**

(ii) Explain why the price of a synthetic gold ETC would differ from the spot price of gold. **(6)**

(c) Given Atique's concern that the price of gold may fall in the short-term, he is considering hedging his current British sovereign gold coins holdings by using a futures contract.

(i) State the type of futures contract Atique should enter into to compensate for a fall in the price of gold and explain how it achieves this objective. **(7)**

(ii) If the initial margin charge is 5%, calculate, **showing all your workings**, the cost of hedging 100 troy ounces of gold, using a three months futures contract. *Ignore commission and other charges in your answer.* **(4)**

(iii) Explain to Atique why a three month's futures contract might **not** be the best way to hedge his position. **(6)**

(iv) State **five** other types of derivative or instrument that could be used to hedge Atique's gold sovereign exposure. **(5)**

Total marks available for this question: 40

QUESTIONS CONTINUE OVER THE PAGE

Question 3

Read carefully all information provided in the case study before attempting the questions. Your answers should take into account the clients circumstances as set out in the case study. Please carry out ALL of the tasks (a), (b), (c) and (d) which follow.

Pramesh holds shares in Lake Edge plc.

Financial information about this company is included in the table below:

Equity	**Lake Edge**
Sector	Financial Technology
Share price	105p
Long term borrowing	£10,000,000
Shareholders' capital	£45,000,000
Reserves	£750,000
Interest paid	£300,000
Tax paid	£0
Gross profit	£1,400,000
Price-to-book value	0.32

The Financial Technology sector average return on capital employed (ROCE) is 2%.

Pramesh initially purchased some shares in Lake Edge on its market debut at 200p and added to his holding when Lake Edge undertook a rights issue at 300p.

At that time, he was concerned about the level of share price but noted that the issue was likely to be fully subscribed by other investors.

Lake Edge's share price has recently fallen significantly to its current level.

Questions

(a) **(i)** State the **three** elements that make up the definition of 'equity' for the return on equity formula. **(3)**

(ii) Calculate, **showing all your workings**, the return on equity (ROE) for Lake Edge. **(5)**

(iii) Calculate, **showing all your workings**, the return on capital employed (ROCE) for Lake Edge. **(5)**

(iv) Calculate, **showing all your workings**, the interest Lake Edge paid as a percentage of gross profit. **(3)**

(b) In relation to your answers to **parts (a)(ii), (iii) and (iv)** above, explain briefly the impact the borrowings have had on Lake Edge's returns and the possible reasons. **(5)**

(c) Describe the main drawbacks in using price-to-book (P/B) when valuing a company as a potential investment. **(6)**

(d) As a result of a recent fall in Lake Edge's share price, Pramesh is considering whether or not he should dispose of the shares.

(i) From a behavioural finance perspective, state **four** reasons why Pramesh may be inclined not to sell, and explain one justification for each reason, based upon Pramesh's situation. **(8)**

(ii) Identify **five** non-behavioural reasons why Pramesh might decide to retain his shares in Lake Edge. **(5)**

Total marks available for this question: (40)

The tax tables can be found on pages 13 – 21

INCOME TAX

RATES OF TAX	2016/2017	2017/2018
Starting rate for savings*	0%	0%
Basic rate	20%	20%
Higher rate	40%	40%
Additional rate	45%	45%
Starting-rate limit	£5,000*	£5,000*
Threshold of taxable income above which higher rate applies	£32,000	£33,500
Threshold of taxable income above which additional rate applies	£150,000	£150,000
Child benefit charge from 7 January 2013:		
1% of benefit for every £100 of income over	£50,000	£50,000

**not applicable if taxable non-savings income exceeds the starting rate band.*

Dividend Allowance		£5,000
Dividend tax rates		
Basic rate		7.5%
Higher rate		32.5%
Additional rate		38.1%
Trusts		
Standard rate band		£1,000
Rate applicable to trusts		
- dividends		38.1%
- other income		45%

MAIN PERSONAL ALLOWANCES AND RELIEFS		
Income limit for Personal Allowance *§*	£100,000	£100,000
Personal Allowance (basic)	£11,000	£11,500
Married/civil partners (minimum) at 10% *†*	£3,220	£3,260
Married/civil partners at 10% *†*	£8,355	£8,445
Transferable tax allowance for married couples/civil partners	£1,100	£1,150
Income limit for age-related allowances*†*	£27,700	£28,000
Rent a Room relief	£4,250	£7,500
Blind Person's Allowance	£2,290	£2,320
Enterprise Investment Scheme relief limit on £1,000,000 max	30%	30%
Seed Enterprise Investment relief limit on £100,000 max	50%	50%
Venture Capital Trust relief limit on £200,000 max	30%	30%

§ the Personal Allowance reduces by £1 for every £2 of income above the income limit irrespective of age (under the income threshold).
† where at least one spouse/civil partner was born before 6 April 1935.

Child Tax Credit (CTC)		
- Child element per child (maximum)	£2,780	£2,780
- family element	£545	£545
Threshold for tapered withdrawal of CTC	£16,105	£16,105

NATIONAL INSURANCE CONTRIBUTIONS

Class 1 Employee	Weekly
Lower Earnings Limit (LEL)	£113
Primary threshold	£157
Upper Earnings Limit (UEL)	£866

Total earnings £ per week	CLASS 1 EMPLOYEE CONTRIBUTIONS
Up to 157.00*	Nil
157.01 – 866.00	12%
Above 866.00	2%

**This is the primary threshold below which no NI contributions are payable. However, the lower earnings limit is £113 per week. This £113 to £157 band is a zero-rate band introduced in order to protect lower earners' rights to contributory State benefits e.g. the new State Pension.*

Total earnings £ per week	CLASS 1 EMPLOYER CONTRIBUTIONS
Below 157.00**	Nil
157.01 – 866.00	13.8%
Excess over 866.00	13.8%

*** Secondary earnings threshold.*

Class 2 (self-employed)	Flat rate per week £2.85 where profits exceed £6,025 per annum.
Class 3 (voluntary)	Flat rate per week £14.25.
Class 4 (self-employed)	9% on profits between £8,164 - £45,000. 2% on profits above £45,000.

PENSIONS

TAX YEAR	LIFETIME ALLOWANCE
2006/2007	£1,500,000
2007/2008	£1,600,000
2008/2009	£1,650,000
2009/2010	£1,750,000
2010/2011	£1,800,000
2011/2012	£1,800,000
2012/2013	£1,500,000
2013/2014	£1,500,000
2014/2015	£1,250,000
2015/2016	£1,250,000
2016/2017	£1,000,000
2017/2018	£1,000,000

LIFETIME ALLOWANCE CHARGE

55% of excess over lifetime allowance if taken as a lump sum.
25% of excess over lifetime allowance if taken in the form of income, which is subsequently taxed under PAYE.

ANNUAL ALLOWANCE

TAX YEAR	ANNUAL ALLOWANCE
2011/2012	£50,000
2012/2013	£50,000
2013/2014	£50,000
2014/2015	£40,000
2015/2016	£40,000~
2016/2017	£40,000*
2017/2018	£40,000*

~ increased to £80,000 for pension input between April - 8 July 2015. If not used, can be carried forward to pension input period of 9 July 2015 - 6 April 2016, subject to a maximum of £40,000.

**tapered at a rate of £1 for every £2 of adjusted income in excess of £150,000 where threshold income exceeds £110,000.*

MONEY PURCHASE ANNUAL ALLOWANCE	2016/2017	2017/2018
	£10,000	£4,000

ANNUAL ALLOWANCE CHARGE

20% - 45% determined by the member's taxable income and the amount of total pension input in excess of the annual allowance or money purchase annual allowance.

CAPITAL GAINS TAX

EXEMPTIONS	2016/2017	2017/2018
Individuals, estates etc	£11,100	£11,300
Trusts generally	£5,550	£5,650
Chattels proceeds (restricted to five thirds of proceeds exceeding limit)	£6,000	£6,000

TAX RATES		
Individuals:		
Up to basic rate limit	10%	10%
Above basic rate limit	20%	20%
Surcharge for residential property and carried interest	8%	8%
Trustees and Personal Representatives	20%	20%
Entrepreneurs' Relief* – Gains taxed at:	10%	10%
Lifetime limit	£10,000,000	£10,000,000

**For trading businesses and companies (minimum 5% employee or director shareholding) held for at least one year.*

INHERITANCE TAX

RATES OF TAX ON TRANSFERS	2016/2017	2017/2018
Transfers made on death after 5 April 2015		
- Up to £325,000	Nil	Nil
- Excess over £325,000	40%	40%
Transfers made after 5 April 2015		
- Lifetime transfers to and from certain trusts	20%	20%

A lower rate of 36% applies where at least 10% of deceased's net estate is left to a registered charity.

MAIN EXEMPTIONS

Transfers to		
- UK-domiciled spouse/civil partner	No limit	No limit
- non-UK-domiciled spouse/civil partner (from UK-domiciled spouse)	£325,000	£325,000
- main residence nil rate band*	£100,000	£100,000
- UK-registered charities	No limit	No limit

**Available for estates up to £2,000,000 and then tapered at the rate of £1 for every £2 in excess until fully extinguished*

Lifetime transfers		
- Annual exemption per donor	£3,000	£3,000
- Small gifts exemption	£250	£250
Wedding/civil partnership gifts by		
- parent	£5,000	£5,000
- grandparent/bride and/or groom	£2,500	£2,500
- other person	£1,000	£1,000

100% relief: businesses, unlisted/AIM companies, certain farmland/building
50% relief: certain other business assets

Reduced tax charge on gifts within 7 years of death:

- Years before death	0-3	3-4	4-5	5-6	6-7
- Inheritance Tax payable	100%	80%	60%	40%	20%

Quick succession relief:

- Years since IHT paid	0-1	1-2	2-3	3-4	4-5
- Inheritance Tax relief	100%	80%	60%	40%	20%

CAR BENEFIT FOR EMPLOYEES

The charge for company car benefits is based on the carbon dioxide (CO_2) emissions. There is no reduction for high business mileage users.

For 2017/2018:

- The percentage charge is 9% of the car's list price for CO_2 emissions of 50g/km or less.
- For cars with CO_2 emissions of 51g/km to 75g/km the percentage is 13%.
- For cars with CO_2 emissions of 76g/km to 94g/km the percentage is 17%.
- Cars with CO_2 emissions of 95g/km have a percentage charge of 18% and thereafter the charge increases by 1% for every complete 5g/km to a maximum of 37% (emissions of 200g/km and above).

There is an additional 3% supplement for diesel cars not meeting Euro IV emission standards. However, the maximum charge remains 37% of the car's list price.

Car fuel The benefit is calculated as the CO_2 emissions % relevant to the car and that % applied to a set figure (£22,600 for 2017/2018) e.g. car emission 100g/km = 17% on car benefit scale. 17% of £22,600 = £3,842.

1. **Accessories** are, in most cases, included in the list price on which the benefit is calculated.
2. **List price** is reduced for capital contributions made by the employee up to £5,000.
3. **Car benefit** is reduced by the amount of employee's contributions towards running costs.
4. **Fuel scale** is reduced only if the employee makes good **all** the fuel used for private journeys.
5. **All car and fuel benefits** are subject to employers National Insurance contribution's (Class 1A) of 13.8%.

PRIVATE VEHICLES USED FOR WORK

	2016/2017 Rates	2017/2018 Rates
Cars		
On the first 10,000 business miles in tax year	45p per mile	45p per mile
Each business mile above 10,000 business miles	25p per mile	25p per mile
Motor Cycles	24p per mile	24p per mile
Bicycles	20p per mile	20p per mile

MAIN CAPITAL AND OTHER ALLOWANCES

	2016/2017	2017/2018
Plant & machinery (excluding cars) 100% annual investment allowance (first year)	£200,000	£200,000
Plant & machinery (reducing balance) per annum	18%	18%
Patent rights & know-how (reducing balance) per annum	25%	25%
Certain long-life assets, integral features of buildings (reducing balance) per annum	8%	8%
Energy & water-efficient equipment	100%	100%
Zero emission goods vehicles (new)	100%	100%
Qualifying flat conversions, business premises & renovations	100%	100%

Motor cars: Expenditure on or after 01 April 2016 (Corporation Tax) or 06 April 2016 (Income Tax)

CO_2 emissions of g/km:	75 or less*	76-130	131 or more
Capital allowance:	100% first year	18% reducing balance	8% reducing balance

**If new*

MAIN SOCIAL SECURITY BENEFITS

		2016/2017	2017/2018
		£	£
Child Benefit	First child	20.70	20.70
	Subsequent children	13.70	13.70
	Guardian's allowance	16.55	16.70
Employment and Support Allowance	Assessment Phase		
	Age 16 – 24	Up to 57.90	Up to 57.90
	Aged 25 or over	Up to 73.10	Up to 73.10
	Main Phase		
	Work Related Activity Group	Up to 102.15	Up to 102.15
	Support Group	Up to 109.30	Up to 109.65
Attendance Allowance	Lower rate	55.10	55.65
	Higher rate	82.30	83.10
basic State Pension	Single	119.30	122.30
	Married	190.80	195.60
new State Pension	Single	155.65	159.55
Pension Credit	Single person standard minimum guarantee	155.60	159.35
	Married couple standard minimum guarantee	237.55	243.25
	Maximum savings ignored in calculating income	10,000.00	10,000.00
Bereavement Payment Support Payment*		2,000.00	2,000.00
Higher rate - lump sum		N/A	3,500.00
Higher rate - monthly payment		N/A	350.00
Standard rate – lump sum		N/A	2,500.00
Standard rate – monthly payment		N/A	100.00
Jobseekers Allowance	Age 18 - 24	57.90	57.90
	Age 25 or over	73.10	73.10
Statutory Maternity, Paternity and Adoption Pay		139.58	140.98

*Only applicable where spouse or civil partner died on or after 6 April 2007**

CORPORATION TAX

	2016/2017	2017/2018
Standard rate	20%	19%

VALUE ADDED TAX

	2016/2017	2017/2018
Standard rate	20%	20%
Annual registration threshold	£83,000	£85,000
Deregistration threshold	£81,000	£83,000

STAMP DUTY LAND TAX

	Residential
Value up to £125,000	0%
£125,001 - £250,000	2%
£250,001 and £925,000	5%
£925,001 and £1,500,000	10%
£1,500,001 and over	12%

Stamp Duty Land Tax (SDLT) is payable in England, Wales and Northern Ireland only. Land and Buildings Transaction Tax (LBTT) is payable in Scotland at different rates to the above.

Additional SDLT of 3% may apply to the purchase of additional residential properties purchased for £40,000 or greater.

SDLT is charged at 15% on interests in residential dwellings costing more than £500,000 purchased by certain corporate bodies or non-natural persons.

	Non residential
Value up to £150,000	0%
£150,001 and £250,000	2%
£250,001 and over	5%

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