

AF4

Advanced Diploma in Financial Planning

Unit AF4 – Investment planning

October 2014 examination

SPECIAL NOTICES

All questions in this paper are based on English law and practice applicable in the tax year 2014/2015, 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 the following carefully, then carry out **ALL** of the tasks (a), (b), (c) and (d) which follow.

Rowan is a higher rate tax payer. Rowan has recently retired and needs to derive an income from her investments. Rowan has a medium attitude to risk. Table 1 below shows the performance of Rowan's portfolio and the Association of Private Client Investment Managers and Stockbrokers (APCIMS) benchmark over the past two years since you have been managing it.

The return on Rowan's portfolio over the last twelve months is 19% and it has a standard deviation of 4.5%. Currently the risk free return is 3%. She noticed last year that her portfolio had a Sharpe ratio of 1.5.

Table 1 – Rowan's Portfolio and APCIMS benchmark (over the past two years)

Sector	Portfolio allocation %	Performance %	APCIMS income benchmark allocation %	APCIMS income benchmark performance %
UK Equity	50	15	42.5	12.5
International Equity	10	20	12.5	20
Bonds	25	40	35	38
Cash	10	3	5	3
Commercial Property	5	12	2.5	10
Hedge Funds	0	0	2.5	7.5
Total				21.70%

Rowan has recently received an inheritance of £150,000. She currently receives 0.75% per annum interest from her building society instant access account, paid six monthly in arrears. Rowan is aware that inflation is currently running at 2.5% per annum and has been researching and is considering investing in the government bonds shown in Table 2 below.

Table 2 – Government bonds

Country	Coupon	Price per nominal (£)	Rating
UK Ten Year	5%	125	AAA-
Greek Ten Year	6%	90	B-

Questions

To gain maximum marks for calculations you **must** show **all** your workings and express your answers to **two** decimal places.

- (a) (i) Using the information in **Table 1**:
- Calculate, **showing all your workings**, the total percentage return from Rowan's portfolio over the past two years. (6)
- (ii) State whether Rowan's portfolio has over or underperformed the Association of Private Client Investment Managers and Stockbrokers income benchmark and by how much. (2)
- (iii) Calculate, **showing all your workings**, what Rowan's total percentage return would have been over the period, if her asset allocation had been the same as the benchmark. (6)
- (iv) Comment on how Rowan's asset allocation and stock selection decisions contributed to her portfolio performance in comparison to the benchmark. (12)
- (v) Calculate, **showing all your workings**, the Sharpe ratio of Rowan's portfolio for the current year and comment on how it compares with the previous 12 months. (7)
- (b) Explain briefly why benchmarks are used and state the factors that should be taken into account before selecting a suitable benchmark for agreement with the client. (11)
- (c) (i) Calculate, **showing all your workings**, the simplified net redemption yield on the UK government bond. (6)
- (ii) Calculate, **showing all your workings**, the clean price of the UK government bond if it had a running yield of 3%. (2)
- (iii) Identify and explain briefly **five** risks associated with the Greek government bond. (10)
- (iv) List **four** ways that Rowan could hedge her position should she choose to invest overseas. (4)

QUESTIONS CONTINUE OVER THE PAGE

- (d) (i) Calculate, **showing all your workings**, the nominal value of Rowan's inheritance in 10 years time, if she leaves it in her building society instant access account. *Ignore taxation in your calculation.* (5)
- (ii) Calculate, **showing all your workings**, the real value of Rowan's inheritance net of tax in 10 years time, if she leaves it in her building society instant access account. (5)
- (iii) Explain briefly to Rowan how an increase in interest rates can help to control inflation. (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 the following carefully, then carry out **ALL** of the tasks **(a), (b), (c), (d), (e), (f)** and **(g)** which follow.

Graham, a higher rate tax payer, with an adventurous attitude to risk, is investing for growth. He has a portfolio of £240,000 which is mainly invested in a low cost FTSE All Share exchange-traded fund (ETF) and global equity investment trusts.

Graham would like to add some exposure to commodities to his portfolio. He is interested in purchasing either an exchange traded commodity (ETC) investing in precious metals or an investment trust that invests in shares of mining companies.

He would like to understand how these two potential investments differ from an investment which invests directly into the underlying physical commodity.

Precious Stones investment trust has two classes of shares, ordinary shares and zero dividend preference shares (zeros). Details of the zeros are as follows:

Current Price (£)	Redemption Price (£)	Time to Redemption (years)	Capital Cover	Hurdle Rate to Redemption	Hurdle Rate to Wipe-out
115.00	132.00	3.0	1.3	-11%	-99%

Questions

To gain maximum marks for calculations you **must** show **all** your workings and express your answers to **two** decimal places.

- (a) Explain briefly **four** advantages for Graham of investing in commodities. (8)
- (b) Identify the main features of a synthetic exchange traded commodity (ETC) and explain briefly how it differs from a physical ETC. (6)
- (c) Explain to Graham why the performance of a synthetic ETC can differ significantly from that of the underlying physical commodity. (3)
- (d) Explain to Graham why the performance of an investment trust of mining companies can differ significantly from that of the underlying physical commodity. (7)
- (e) Explain to Graham the main features of zero dividend preference shares (zeros) and how they provide a gearing effect for the ordinary shares within Precious Stones investment trust. (4)
- (f) Calculate, **showing all your workings**, the yield to redemption of the Precious Stones zeros. (4)
- (g) Explain what is meant by the terms 'capital cover', 'hurdle rate' and 'negative hurdle rate' and comment on the values for the Precious Stones zeros. (8)

Total marks available for this question: 40

QUESTIONS CONTINUE OVER THE PAGE

Question 3

Read the following carefully, then carry out **ALL** of the tasks **(a)**, **(b)** and **(c)** which follow.

Lisa Pattern is an existing client of yours and wants to meet to discuss investing a further sum of £200,000.

Lisa wants the new investment to be kept relatively liquid as she has high income requirements over the next five years and requires income equivalent to 4% gross per annum. Lisa is considering investing in corporate bonds. She is interested in the retailer S&L plc which has a newly issued high yielding 'junk' corporate bond. S&L plc has recently paid a net dividend of 10p per share and its current share price is 214p. S&L plc had earnings per share of 9p and a high Price Earnings Growth ratio.

Lisa has a low attitude to risk and she does not have an extensive understanding of investment markets and is concerned about the economic cycle. There has been a wide range of performance on some of her UK shares through the banking crisis and recent market recovery, as detailed below in Table 1.

Table 1

Company	S&L plc	Best Bake plc	Pills Incorporated plc	National Night Clubs plc
Retail Sector	Fashion	Bread makers	Pharmaceutical	Entertainment

Questions

To gain maximum marks for calculations you **must** show **all** your workings and express your answers to **two** decimal places.

- (a) (i) Identify the stages of the economic cycle and explain briefly how cyclical stocks normally perform within each phase. (8)
- (ii) State, giving your reasons, for each of Lisa's shares in **Table 1** whether they are cyclical or non-cyclical. (8)
- (b) (i) Calculate, **showing all your workings**, the dividend cover for S&L plc and explain the results to Lisa. (8)
- (ii) Calculate, **showing all your workings**, the dividend yield for S&L plc. (2)
- (iii) Comment on the suitability of the S&L plc shares as an investment for Lisa given her stated aims. (6)
- (c) (i) Explain briefly to Lisa the meaning of Price Earning Growth ratio (PEG) and what a high ratio may mean for S&L plc. (4)
- (ii) Explain briefly the limitations of the PEG ratio. (4)

Total marks available for this question: 40

The tax tables can be found on pages 13 – 19

INCOME TAX

RATES OF TAX	2013/2014	2014/2015
Starting rate for savings*	10%	10%
Basic rate	20%	20%
Higher rate	40%	40%
Additional rate	45%	45%
Starting-rate limit	£2,790*	£2,880*
Threshold of taxable income above which higher rate applies	£32,010	£31,865
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
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**Restricted to savings income only and not available if taxable non-savings income exceeds starting rate band.*

MAIN PERSONAL ALLOWANCES AND RELIEFS

Income limit for Personal Allowance §	£100,000	£100,000
Personal Allowance (basic if born after 5 April 1948) §	£9,440	£10,000
Personal Allowance (if born between 6 April 1938 and 5 April 1948) §	£10,500	£10,500
Personal Allowance (if born before 6 April 1938) §	£10,660	£10,660
Married/civil partners (minimum) (if born before 6 April 1935) at 10% †	£3,040	£3,140
Married/civil partners (if born before 6 April 1935) at 10% †	£7,915	£8,165
Income limit for age-related allowances	£26,100	£27,000
Blind Person's Allowance	£2,160	£2,230
Enterprise Investment Scheme relief limit on £1,000,000 max	30%	30%
Seed Enterprise Investment relief limit on £100,000	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)	£2,720	£2,750
- family element	£545	£545
Threshold for tapered withdrawal of CTC	£15,910	£16,010

NATIONAL INSURANCE CONTRIBUTIONS

Class 1 Employee	Weekly	Monthly	Yearly
Lower Earnings Limit (LEL)	£111	£481	£5,772
Primary threshold	£153	£663	£7,956
Upper Accrual Point	£770	£3,337	£40,040
Upper Earnings Limit (UEL)	£805	£3,489	£41,865

Total earnings £ per week	CLASS 1 EMPLOYEE CONTRIBUTIONS	
	Contracted-in rate	Contracted-out rate (final salary)
Up to 153.00*	Nil	Nil
153.01 – 770.00	12%	10.6%
770.01 – 805.00	12%	12%
Above 805.00	2%	2%

**This is the primary threshold below which no NI contributions are payable. However, the lower earnings limit is £111 per week. This £111 to £153 band is a zero rate band introduced in order to protect lower earners' rights to contributory State benefits e.g. Basic State Pension.*

Total earnings £ per week	CLASS 1 EMPLOYER CONTRIBUTIONS		
	Contracted-in rate	Contracted-out rate	
		Final salary	Money purchase
Below 153.00**	Nil	Nil	Nil
153.01 – 770.00	13.8%	10.4%	13.8%
770.01 – 805.00	13.8%	13.8%	13.8%
Excess over 805.00	13.8%	13.8%	13.8%

*** Secondary earnings threshold.*

Class 2 (self-employed)	Flat rate per week £2.75 where earnings exceed £5,885 per annum.
Class 3 (voluntary)	Flat rate per week £13.90.
Class 4 (self-employed)	9% on profits between £7,956 - £41,865 2% on profits above £41,865.

PENSIONS

TAX YEAR	LIFETIME ALLOWANCE	ANNUAL ALLOWANCE
2006/2007	£1,500,000	£215,000
2007/2008	£1,600,000	£225,000
2008/2009	£1,650,000	£235,000
2009/2010	£1,750,000	£245,000
2010/2011	£1,800,000	£255,000
2011/2012	£1,800,000	£50,000
2012/2013	£1,500,000	£50,000
2013/2014	£1,500,000	£50,000
2014/2015	£1,250,000	£40,000

ANNUAL ALLOWANCE CHARGE

20% - 45% member's tax charge on the amount of total pension input in excess of the annual allowance.

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.

CAPITAL GAINS TAX

EXEMPTIONS	2013/2014	2014/2015
Individuals, estates etc	£10,900	£11,000
Trusts generally	£5,450	£5,500
Chattels proceeds (restricted to five thirds of proceeds exceeding limit)	£6,000	£6,000
TAX RATES		
Individuals:		
Up to basic rate limit	18%	18%
Above basic rate limit	28%	28%
Trustees and Personal Representatives	28%	28%
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 DEATH TRANSFERS

2013/2014 2014/2015

Transfers made after 5 April 2014

- Up to £325,000	Nil	Nil
- Excess over £325,000	40%	40%
- Lifetime transfers to and from certain trusts	20%	20%

**For deaths after 5 April 2014, a lower rate of 36% applies where at least 10% of deceased's net estate is left to 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
- UK-registered charities	No limit	No limit

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	£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%

CAR BENEFIT FOR EMPLOYEES

The charge for company car benefits is based on the carbon dioxide (CO₂) emissions. There is no reduction for high business mileage users.

For 2014/2015:

- Cars that cannot emit CO₂ have a 0% charge.
- The percentage charge is 5% of the car's list price for CO₂ emissions of 75g/km or less.
- For cars with CO₂ emissions of 76g/km to 94g/km the percentage is 11%.
- For cars with CO₂ emissions of 95g/km to 99g/km the percentage is 12%.
- Cars with CO₂ emissions of 100g/km have a percentage charge of 13% and thereafter the charge increases by 1% for every complete 5g/km to a maximum of 35% (emissions of 210g/km and above).

There is an additional 3% supplement for diesel cars not meeting Euro IV emission standards. However, the maximum charge remains 35% of the car's list price.

Car fuel The benefit is calculated as the CO₂ emissions % relevant to the car and that % applied to a set figure (£21,700 for 2014/2015) e.g. car emission 100g/km = 13% on car benefit scale. 13% of £21,700 = £2,821.

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 Contributions (Class 1A) of 13.8%.

PRIVATE VEHICLES USED FOR WORK

	2013/2014 Rates	2014/2015 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

	2013/2014	2014/2015	
Plant & machinery (excluding cars) 100% annual investment allowance (first year)	£250,000	£500,000	
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 2014 (Corporation Tax) or 06 April 2014 (Income Tax)			
CO ₂ emissions of g/km:	95 or less*	96-130	131 or more
Capital allowance:	100%	18%	8%
	first year	reducing balance	reducing balance

*If new

CORPORATION TAX

	2013/2014	2014/2015
Full rate	23%	21%
Small companies rate	20%	20%
Small companies limit	£300,000	£300,000
Effective marginal rate	23.75%	21.25%
Upper marginal limit	£1,500,000	£1,500,000

VALUE ADDED TAX

	2013/2014	2014/2015
Standard rate	20%	20%
Annual registration threshold	£79,000	£81,000
Deregistration threshold	£77,000	£79,000

MAIN SOCIAL SECURITY BENEFITS

		2013/2014	2014/2015
		£	£
Child Benefit	First child	20.30	20.50
	Subsequent children	13.40	13.55
	Guardian's allowance	15.90	16.35
Employment and Support Allowance	Assessment Phase		
	Age 16 – 24	Up to 56.80	Up to 57.35
	Aged 25 or over	Up to 71.70	Up to 72.40
	Main Phase		
	Work Related Activity Group	Up to 100.15	Up to 101.15
	Support Group	Up to 106.50	Up to 108.15
Attendance Allowance	Lower rate	53.00	54.45
	Higher rate	79.15	81.30
Retirement Pension	Single	110.15	113.10
	Married	176.15	180.90
Pension Credit	Single person standard minimum guarantee	145.40	148.35
	Married couple standard minimum guarantee	222.05	226.50
	Maximum savings ignored in calculating income	10,000.00	10,000.00
Bereavement Payment (lump sum)		2,000.00	2,000.00
Widowed Parent's Allowance		108.30	111.20
Jobseekers Allowance	Age 16 - 24	56.80	57.35
	Age 25 or over	71.70	72.40
Statutory Maternity, Paternity and Adoption Pay		136.78	138.18

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