

AF4

Advanced Diploma in Financial Planning

Unit AF4 – Investment planning

April 2013 examination

SPECIAL NOTICES

All questions in this paper are based on English law and practice applicable in the tax year 2012/2013, unless stated otherwise in the question, and should be answered accordingly.

Assume all individuals are domiciled, resident and ordinarily resident in the UK unless stated otherwise.

Candidates should answer based on the legislative position immediately BEFORE the 2013 budget.

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
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- 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 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

Graham, a value investor, with a medium attitude to risk has compiled a portfolio primarily for income but with growth potential (Table 1), consisting of UK equities, fixed interest securities and overseas equity investment trusts.

He is unsure as to the relative performance of the portfolio. Graham has drawn your attention to two of the shares (Table 2) and three of the fixed interest stocks (Table 3).

Graham has read that one of his investment trusts, Primavera, is trading at a discount (Table 4).

Table 1 – Graham's Portfolio

Sector	Allocation %	Performance %	APCIMS Benchmark Allocation %	Performance %
UK Equity	65	20	45	15
Fixed Interest	10	25	15	22
Overseas Equity	25	40	40	35

Table 2

Share	Sector	Dividend per share (p)	Beta	Earnings per share	Share Price (p)
Lendulots Ltd	Banking	1	5	2	60
MMDS plc	Construction	2.5	1	4	50

Table 3

Stock	Clean Price (£)	Years to maturity	Coupon %	Paid	Credit Rating	Redeem at £	Redemption Yield %
Largeco plc	80	12	3	Annually	BB	100	(c)(ii)
Teablend plc	89	3	6	Annually	A	100	7.28
Patience Ltd	75	5	0	Annually	AA	100	6.67

Table 4

Name	Shares issued	Warrants issued	Share price (£)	Net Asset Value per share (£)	Subscription price per share (£)
Primavera plc	15,000,000	5,000,000	2.90	3.30	1.30

Questions

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

- (a) (i) Calculate, **showing all your workings**, the overall performance of Graham's portfolio in Table 1. (4)
- (ii) Compare and quantify Graham's portfolio's performance with that of the APCIMS benchmark. (2)
- (iii) If Graham's asset allocation had been the same as the benchmark, calculate, **showing all your workings**, what Graham's return would have been over the period. (10)
- (iv) Comment on Graham's asset allocation and stock selection decisions versus the benchmark's. (6)
- (b) From the information provided in Table 2, calculate, **showing all your workings**:
- (i) the P/E ratio for Lendulots Ltd; (3)
- (ii) the Dividend Yield for MMDS plc. (3)
- (iii) From the information provided in Table 2, and your answers to (b)(i) and (ii) above, comment on the suitability of each share for Graham. (14)
- (iv) MMDS plc is a FTSE 100 stock. Explain to Graham how he could enhance his income using options, and the possible risks of such a strategy. (5)
- (c) Graham is concerned about the UK's economic prospects, especially interest rates rising, and intends to sell one of his fixed-interest holdings.
- (i) State briefly to Graham the **four** main factors which can influence interest rates. (4)
- (ii) From the information provided in Table 3, calculate, **showing all your workings**, the redemption yield of the Largeco plc 3% bond using the simplified or Japanese method. (8)
- (iii) Based on the information supplied and your answer to c(ii), identify, giving your reasons, which holding he should sell. (6)
- (d) (i) From the information provided in Table 4, explain the term discount, as applied to investment trusts, and why Primavera may be trading at a discount. (6)
- (ii) Calculate, **showing all your workings**, the discount of Primavera. (4)
- (iii) State, giving reasons, the effect on the value of Graham's holding if the warrant holders convert their warrants to shares. *Graham holds no warrants*. (5)

Total marks available for this question: 80

Questions continue over the page

SECTION B

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

Question 2

Mr Smith, is seeking to diversify his holdings away from equities by investing in commercial property and a hedge fund.

Mr Smith is interested in a Real Estate Investment Trust (REIT), LLPC plc, and a hedge fund, Stratosphere Capital Ltd.

Stratosphere Capital Ltd is a hedge fund with two classes of shares, each with a different charging structure, as shown in the Table below.

Share Class	Initial Charge %	Annual Management Charge %	Performance Fee
A	0	2	15% Gross Return
B	5	0.5	20% of Return over 4%

Questions

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

- (a) Explain the tax advantages that a REIT enjoys compared to a UK company that invests in property without a REIT status. (10)
- (b) List and explain briefly the new or increased risks that LLPC plc may face at a time when the economy is in recession. (7)
- (c) Other than taxation, state **four** advantages of investing in property via a REIT compared to directly owning property. (4)
- (d) (i) From the information provided in the Table above, calculate, **showing all your workings**, the net return after two years if share class B achieves a gross return of 10%, in its first year and 15%, in year two. (7)
- (ii) State the factors Mr Smith should take into consideration when choosing which share class to invest in. (2)
- (e) State **three** advantages and **three** disadvantages of investing in a fund of funds investing in the hedge fund sector. (6)
- (f) State **four** ways that Mr Smith could protect his portfolio against a fall in the FTSE 100 index. (4)

Total marks available for this question: 40

Question 3

Edward, aged 63, has accumulated a number of shares over the years which he is setting out to rationalise.

Edward holds shares in two beverages companies, Abbot King plc and Hopscotch plc. He feels he is over exposed in this sector and wishes to sell one of the shares. He is seeking advice as to which it should be.

The return on capital employed (ROCE) and the return on equity (ROE) for Hopscotch plc are 8.94% and 6.73% respectively. Both companies are currently paying 8% interest gross per annum on their long-term loans and neither have any short-term loans or preference shares in issue. Information about the two shares is given in Table 1 below.

Edward is about to inherit a large sum. He knows that his retirement income will depend largely on the way it is invested and that he must now adopt a more disciplined approach. He has read about investment theory, including risk and reward and the efficient frontier, and seeks clarification of these concepts.

Table 1 - Edward's Share Information

Shares	Long-term loans (£m)	Profit before interest & tax (£m)	Shareholder's funds (£m)	Net profit after tax (£m)
Abbott King plc	47.20	5.20	45.30	1.20
Hopscotch plc	11.90	3.55	27.80	1.87

Questions

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

- (a) (i) State what shareholders' funds comprise. (3)
- (ii) Calculate, **showing all your workings**, the ROCE for Abbott King plc. (4)
- (iii) Calculate, **showing all your workings**, the ROE for Abbott King plc. (3)
- (iv) State, giving your reasons, if ROCE or ROE would be the more appropriate method to use to compare the performance of Abbott King plc and Hopscotch plc. (4)
- (b) Hopscotch plc has an interest cover of 3.73. Calculate, **showing all your workings**, the interest cover for Abbott King plc. (4)
- (c) Based on the information provided in Table 1 and your answers from (a) and (b) above state, giving your reasons, whether you would recommend Edward retains the shares in Abbott King plc or Hopscotch plc. (5)
- (d) (i) List for Edward the **three** pieces of information required to create an efficient frontier model. (3)
- (ii) Explain to Edward how the efficient frontier concept might help him in the creation of a suitable portfolio when he receives his legacy. (4)
- (iii) List **five** limitations of the efficient frontier model. (5)
- (e) Explain briefly how you would assess Edward's risk profile if you were asked to advise on the investment of his legacy. (5)

Total marks available for this question: 40

The tax tables can be found on pages 9 – 13

INCOME TAX

RATES OF TAX	2011/2012	2012/2013
Starting rate for savings*	10%	10%
Basic rate	20%	20%
Higher rate	40%	40%
Additional rate	50%	50%
Starting-rate limit	£2,560*	£2,710*
Threshold of taxable income above which higher rate applies	£35,000	£34,370
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	N/A	£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) §	£7,475	£8,105
Personal Allowance (age 65-74) §	£9,940	£10,500
Personal Allowance (aged 75 and over) §	£10,090	£10,660
Married/civil partners (minimum) at 10% †	£2,800	£2,960
Married/civil partners (age 75 and over) at 10%	£7,295	£7,705
Income limit for age-related allowances	£24,000	£25,400
Blind Person's Allowance	£1,980	£2,100
Enterprise Investment Scheme relief limit on £1,000,000 max (£500,000 in 2011/2012)	30%	30%
Seed Enterprise Investment relief limit on £100,000	N/A	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.

† where at least one spouse/civil partner was born before 6 April 1935.

Child Tax Credit (CTC)		
- Child element per child (maximum)	N/A	£2,690
- family element	£545	£545
Threshold for tapered withdrawal of CTC	N/A	£15,860

NATIONAL INSURANCE CONTRIBUTIONS

Class 1 Employee	Weekly	Monthly	Yearly
Lower Earnings Limit (LEL)	£107	£464	£5,564
Primary threshold	£146	£634	£7,605
Upper Accrual Point	£770	£3,337	£40,040
Upper Earnings Limit (UEL)	£817	£3,540	£42,475

Total earnings £ per week	CLASS 1 EMPLOYEE CONTRIBUTIONS	
	Contracted-in rate/contracted-out (money purchase)	Contracted-out rate (final salary)
Up to 146.00*	Nil	Nil
146.01 – 770.00	12%	10.6%
770.01 – 817.00	12%	12%
Above 817.00	2%	2%

*This is the primary threshold below which no NI contributions are payable. However, the lower earnings limit is £107 per week. This £107 to £146 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 144.00**	Nil	Nil	Nil
144.01 – 770.00	13.8%	10.4%	13.8%
770.01 – 817.00	13.8%	13.8%	13.8%
Excess over 817.00	13.8%	13.8%	13.8%

** Secondary earnings threshold.

Class 2 (self-employed)	Flat rate per week £2.65 where earnings exceed £5,595 per annum.
Class 3 (voluntary)	Flat rate per week £13.25.
Class 4 (self-employed)	9% on profits between £7,605 - £42,475 2% on profits above £42,475.

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

ANNUAL ALLOWANCE CHARGE

20% - 50% 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.

INHERITANCE TAX

RATES OF TAX ON DEATH TRANSFERS

	2011/2012	2012/2013
Transfers made after 5 April 2012		
- 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 2012, 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)		£55,000		£55,000
- 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 2012/2013:

- 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 99g/km the percentage is 10%.
- Cars with CO₂ emissions of 100g/km have a percentage charge of 11% and thereafter the charge increases by 1% for every complete 5g/km to a maximum of 35% (emissions of 220g/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 (£20,200 for 2012/2013) e.g. car emission 100g/km = 11% on car benefit scale. 11% of £20,200 = £2,222.

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

	2011/2012 Rates	2012/2013 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

	2011/2012	2012/2013
Plant & machinery (excluding cars) 100% annual investment allowance (first year)	£100,000	£25,000
Plant & machinery (reducing balance) per annum	20%	18%
Patent rights & know-how (reducing balance) per annum	25%	25%
Certain long-life assets, integral features of buildings (reducing balance) per annum	10%	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 01/04/09 (Corporation Tax) or 06/04/09 (Income Tax)

CO ₂ emissions of g/km:	110 or less*	111-160	161 or more
Capital allowance:	100%	18%	8%
	first year	reducing balance	reducing balance

*If new

Research & Development: Capital expenditure 100%

MAIN SOCIAL SECURITY BENEFITS

	2011/2012	2012/2013	
	£	£	
Child Benefit	First child	20.30	20.30
	Subsequent children	13.40	13.40
	Guardian's allowance		15.55
Employment and Support Allowance	Assessment Phase		
	Age 16 – 24	Up to 53.45	Up to 56.25
	Aged 25 or over	Up to 67.50	Up to 71.00
	Main Phase		
	Work Related Activity Group	Up to 94.25	Up to 99.15
	Support Group	Up to 99.85	Up to 105.05
Attendance Allowance	Lower rate	49.30	51.85
	Higher rate	73.60	77.45
Retirement Pension	Single	102.15	107.45
	Married	163.35	171.85
Pension Credit	Single person standard minimum guarantee	137.35	142.70
	Married couple standard minimum guarantee	209.70	217.90
	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	100.70	105.95	
Jobseekers Allowance	Age 16 - 24	53.45	56.25
	Age 25 or over	67.50	71.00
Statutory Maternity, Paternity and Adoption Pay	128.73	135.45	

CAPITAL GAINS TAX

EXEMPTIONS	2011/2012	2012/2013
Individuals, estates etc	£10,600	£10,600
Trusts generally	£5,300	£5,300
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.

CORPORATION TAX

	2011/2012	2012/2013
Full rate	26%	24%
Small companies rate	20%	20%
Small companies limit	£300,000	£300,000
Effective marginal rate	27.5%	25.0%
Upper marginal limit	£1,500,000	£1,500,000

VALUE ADDED TAX

	2011/2012	2012/2013
Standard rate	20%	20%
Annual Registration limit	£73,000	£77,000

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