



Chartered
Insurance
Institute

AF4

Advanced Diploma in Financial Planning

Unit AF4 – Investment planning

April 2019 examination

SPECIAL NOTICES

All questions in this paper are based on English law and practice applicable in the tax year 2018/2019, 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 client's circumstances as set out in the case study. Please carry out ALL of the tasks (a), (b), (c), (d), (e), (f), (g) and (h) which follow.

Beth, aged 46, has just inherited £230,000 following the death of her widowed mother and is looking to invest the money over the long term. She has been self-employed for the past few years with an average net profit of £40,000 per annum.

Beth would like to invest the inheritance to generate a gross income of £6,000 per annum and would also like to see some capital growth.

Beth currently holds three funds in the commercial property sector on a direct basis, as shown in **Table 1**. She invested into these several years ago with the proceeds from her divorce. Beth is pleased with the performance of her existing investments but was concerned in the summer 2016 when she received some correspondence from one of the fund managers stating that she would not be able to withdraw her capital for a period of time.

Table 1

Fund Type	Fund structure	Current cash level within fund	5 year fund return	Tracking error	Information Ratio
Commercial property	Exchange Traded Fund	1%	38%	-	-9.09%
City office	Real Estate Investment Trust	0.5%	45%	-	1.35%
Direct property	Open-Ended Investment Company	15%	48%	7.2%	-

Beth has asked her financial adviser for investment advice in respect of her inheritance. The financial adviser is planning a portfolio consisting of UK equities and UK corporate bonds funds only. The adviser is considering strategic or tactical asset allocation, using both passive and active funds.

Beth has also asked for information about the yield curve and wants to know how it could impact upon her potential investment.

Questions

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

- (a) State the additional information that the financial adviser would require from Beth in order to establish her investment needs. (7)
- (b) (i) Explain the purpose of the information ratio to Beth. (4)
- (ii) Calculate, **showing all your workings**, the information ratio for the direct property OEIC. Assume a benchmark return of 40%. (4)
- (iii) State **six** reasons how city office REIT may have achieved the highest information ratio. (6)
- (c) (i) Explain the potential reasons why the direct property OEIC has a higher level of cash. (5)
- (ii) Explain the effects of the higher level of cash within the direct property OEIC. (3)
- (iii) State **four** ways in which an open-ended fund structure could respond to a liquidity crisis following substantial redemption requests. (4)
- (iv) State **four** ways in which a closed-ended fund structure could respond to a liquidity crisis following substantial redemption requests. (4)
- (d) The financial adviser uses an efficient frontier curve when evaluating the portfolio's asset allocation.
- (i) State the **three** inputs required to produce an efficient frontier curve. (3)
- (ii) Explain how the efficient frontier is used in investment planning. (3)
- (iii) State **five** limitations of using the efficient frontier. (5)

QUESTIONS CONTINUE OVER THE PAGE

-
- (e) Incorporating passive funds within the investment portfolio assumes the efficient market hypothesis (EMH) applies in one of its forms.
- Describe the weak form of EMH. (6)
- (f) List **three** Investment Association sectors that could be suitable to provide the funds to construct the UK equity component of the investment portfolio to meet Beth's objectives. (3)
- (g) (i) Explain the main differences between strategic and tactical asset allocation. (8)
- (ii) State, giving **two** reasons why, which type of asset allocation would be most suitable for Beth. (3)
- (h) (i) Explain a normal yield curve to Beth. (4)
- (ii) Outline what would cause a normal yield curve to invert and explain the potential implications for Beth's portfolio. (8)

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 client's circumstances as set out in the case study. Please carry out ALL of the tasks (a), (b), (c), (d) and (e) which follow.

Noam, a retail client, has approached his financial adviser Clare for investment advice. He has an existing investment portfolio and wishes to add some new money to the portfolio. Noam has read about absolute return funds and has asked Clare to select one for the new investment, as he believes this could give him attractive returns with a low risk of losing money.

As part of her investment research, Clare is assessing Myriad, an absolute return fund that uses a combination of passive exchange traded funds (ETFs) and active open-ended investment companies (OEICs) to create a portfolio which invests across UK equities, fixed interest securities, derivatives and cash. The fund manager changes the underlying assets frequently to deliver absolute returns. Details of the fund are shown in **Table 1**.

Table 1

	Expected Return	Expected Market Return	Risk Free Return	Alpha
Myriad fund	4%	6%	0.75%	1.5%

The Ongoing Charges Figure (OCF) of the fund is 1.7%.

Questions

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

- (a) (i) Explain **four** benefits of using the Capital Asset Pricing Model (CAPM) in assessing the potential suitability of the Myriad fund. (4)
- (ii) Calculate, **showing all your workings**, the beta for the Myriad fund using the CAPM. (5)
- (iii) Comment on how the Myriad fund would be expected to perform compared to its benchmark index in both rising and falling markets based on your answer to part (a)(ii) above. (3)
- (b) (i) List **four** fees that are included within the OCF figure. (4)
- (ii) State **four** costs in addition to those in your answer to part (b)(i) above that may be paid when investing in the Myriad fund. (4)
- (c) Myriad's manager is concerned about potential changes in monetary policy and is intending to reduce Myriad's fixed interest duration and increase its credit quality.
- (i) State what is meant by modified duration. (2)
- (ii) State what is meant by credit quality. (2)
- (iii) Explain briefly how Myriad's manager achieves the above objective. (2)
- (d) State and explain briefly the **three** other methods that an equity ETF would use to track its underlying index. **Exclude full replication from your answer.** (6)
- (e) Identify **eight** factors the Myriad manager would consider when deciding whether to invest in OEICs or ETFs. (8)

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 client's circumstances as set out in the case study. Please carry out ALL of the tasks (a), (b), (c) and (d) which follow.

A financial adviser has recently taken on a new retail client, Haymi, who has an existing investment portfolio. The adviser is researching the two companies that make up the portfolio.

GDV Trust plc is an investment trust that invests in global equities and employs a deep value investment philosophy. Additional financial information for GDV Trust plc is shown in **Table 1**.

Aviation Alloys plc is a company producing high tech aerospace components, which it sells internationally to aircraft manufacturers. Additional financial information for Aviation Alloys plc is shown in **Table 2**.

Both companies are listed on the FTSE-250 Index.

Table 1

	Shares issued	Warrants issued	Share price	Total capital employed	Long term debt	Warrant subscription price
GDV Trust plc	22,000,000	650,000	228p	£73,400,000	£18,000,000	89p

Table 2

	Ordinary shares issued	Profit attributable to all shareholders	Preference share dividend	Ordinary share dividend
Aviation Alloys plc	80,000,000	£34,000,000	£5,900,000	£17,000,000

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 undiluted net asset value per share for GDV Trust plc and its discount/premium. (7)
- (ii) Calculate, **showing all your workings**, the diluted net asset value per share for GDV Trust plc. Assume that all the warrants are exercised at the subscription price. (4)
- (iii) Identify the implications for Haymi if she chooses not to exercise the warrant. (3)
- (b) (i) Calculate, **showing all your workings**, GDV Trust plc's net gearing ratio. (4)
- (ii) State **four** possible consequences for GDV Trust plc of an increase in its borrowings. (4)
- (iii) Calculate, **showing all your workings**, the basic earnings per share (EPS) for Aviation Alloys plc. (4)
- (iv) Calculate, **showing all your workings**, the dividend cover on an individual share basis for Aviation Alloys plc. (4)
- (c) Explain briefly what is meant by a deep value investment strategy. (4)
- (d) Based upon the description in the case study, list the **three** main risks that are specific to Aviation Alloys plc's business and give **one** example for **each** of the three risks. (6)

Total marks available for this question: 40

The tax tables can be found on pages 13 – 21

INCOME TAX

RATES OF TAX	2017/2018	2018/2019
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	£33,500	£34,500
Threshold of taxable income above which additional rate applies	£150,000	£150,000
Child benefit charge:		
1% of benefit for every £100 of income over	£50,000	£50,000
<i>*not applicable if taxable non-savings income exceeds the starting rate band.</i>		
Dividend Allowance		£2,000
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)	£11,500	£11,850
Married/civil partners (minimum) at 10% †	£3,260	£3,360
Married/civil partners at 10% †	£8,445	£8,695
Transferable tax allowance for married couples/civil partners	£1,150	£1,190
Income limit for Married couple's allowance †	£28,000	£28,900
Rent a Room relief	£7,500	£7,500
Blind Person's Allowance	£2,320	£2,390
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%
<i>§ the Personal Allowance reduces by £1 for every £2 of income above the income limit irrespective of age (under the income threshold).</i>		
<i>† where at least one spouse/civil partner was born before 6 April 1935.</i>		
<i>** maximum for 'standard' investment but for 'knowledge intensive' investment, the limit is £2,000,000.</i>		
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)	£116
Primary threshold	£162
Upper Earnings Limit (UEL)	£892

Total earnings £ per week	CLASS 1 EMPLOYEE CONTRIBUTIONS
---------------------------	--------------------------------

Up to 162.00*	Nil
162.01 – 892.00	12%
Above 892.00	2%

**This is the primary threshold below which no NI contributions are payable. However, the lower earnings limit is £116 per week. This £116 to £162 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 162.00**	Nil
162.01 – 892	13.8%
Excess over 892.00	13.8%

*** Secondary earnings threshold.*

Class 2 (self-employed)	Flat rate per week £2.95 where profits exceed £6,205 per annum.
Class 3 (voluntary)	Flat rate per week £14.65.
Class 4 (self-employed)	9% on profits between £8,424 - £46,350. 2% on profits above £46,350.

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
2018/2019	£1,030,000

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*
2018/2019	£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

2017/2018	2018/2019
£4,000	£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	2017/2018	2018/2019
Individuals, estates etc	£11,300	£11,700
Trusts generally	£5,650	£5,850
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	2017/2018	2018/2019
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	£125,000
- 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 (CO₂) emissions. There is no reduction for high business mileage users.

For 2018/2019:

- The percentage charge is 13% of the car's list price for CO₂ emissions of 50g/km or less.
- For cars with CO₂ emissions of 51g/km to 75g/km the percentage is 16%.
- For cars with CO₂ emissions of 76g/km to 94g/km the percentage is 19%.
- Cars with CO₂ emissions of 95g/km have a percentage charge of 20% and thereafter the charge increases by 1% for every complete 5g/km to a maximum of 37% (emissions of 190g/km and above).

There is an additional 4% 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 CO₂ emissions % relevant to the car and that % applied to a set figure (£23,400 for 2018/2019) e.g. car emission 90g/km = 19% on car benefit scale. 19% of £23,400 = £4,446.

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

	2017/2018 Rates	2018/2019 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

2017/2018 2018/2019

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:	50 or less*	51-110		111 or more
Capital allowance:	100%	18%	8%	
	first year	reducing balance	reducing balance	

*If new

MAIN SOCIAL SECURITY BENEFITS

		2017/2018	2018/2019
		£	£
Child Benefit	First child	20.70	20.70
	Subsequent children	13.70	13.70
	Guardian's allowance	16.70	17.20
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 109.65	Up to 110.75
Attendance Allowance	Lower rate	55.65	57.30
	Higher rate	83.10	85.60
basic State Pension	Single	122.30	125.95
	Married	195.60	201.45
new State Pension	Single	159.55	164.35
Pension Credit	Single person standard minimum guarantee	159.35	163.00
	Married couple standard minimum guarantee	243.25	248.80
	Maximum savings ignored in calculating income	10,000.00	10,000.00
Bereavement Payment*		2,000.00	2,000.00
Bereavement Support Payment**	Higher rate - First payment	3,500.00	3,500.00
	Higher rate - monthly payment	350.00	350.00
	Lower rate – First payment	2,500.00	2,500.00
	Lower rate – monthly payment	100.00	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		140.98	145.18

*Only applicable where spouse or civil partner died before 6 April 2017.

** Only applicable where spouse or civil partner died on or after 6 April 2017.

CORPORATION TAX

	2017/2018	2018/2019
Standard rate	19%	19%

VALUE ADDED TAX

	2017/2018	2018/2019
Standard rate	20%	20%
Annual registration threshold	£85,000	£85,000
Deregistration threshold	£83,000	£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 and Northern Ireland only. Land Transaction Tax (LTT) is payable in Wales and Land and Buildings Transaction Tax (LBTT) is payable in Scotland. The rates for LTT and LBTT are different to the rates shown 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.

First-time buyers benefit from SDLT relief on purchases up to £500,000 when purchasing their main residence. On purchases up to £300,000, no SDLT is payable. On purchases between £300,000 and £500,000, a flat rate of 5% is charged on the balance above £300,000.

BLANK PAGE

