Chartered Insurance Institute

AF4

Advanced Diploma in Financial Planning

Unit AF4 – Investment planning

October 2020 examination

SPECIAL NOTICES

All questions in this paper are based on English law and practice applicable in the tax year 2020/2021, 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), (g) and (h) which follow.

Irma and Christopher are single and in their late-40s. They are in a long-term relationship and have been living together for several years. Each retained their own property although Christopher recently sold his apartment and has just received £190,000 net sale proceeds.

They would like to invest this sum with the objective of achieving a target sum of £240,000 in fifteen years' time in real terms.

Irma and Christopher have a small investment portfolio held jointly in a general investment account (GIA). Details of investments made and valuations of the GIA over the past 12 months are set out in Table 1 below.

Table 1

Initial investment	Second investment after 6 months	Valuation after 6 months (including second investment)	Value of GIA after 12 months
£10,000	£5,000	£15,470	£16,800

The GIA invests in a mix of equity and fixed interest collective funds. Irma and Christopher are happy with the performance of the existing equity funds and believe that equities are the only asset class they should consider for the planned new investment. Furthermore, they have read a lot about disruptive technology and robotics and think that thematic-based investing would be a way of generating additional returns.

Irma also holds a FTSE 250 listed Real Estate Investment Trust (REIT) on a direct basis. Relevant information for the REIT is set out in Table 2 below.

Table 2

Actual return	Expected return	Risk-free return	Beta	Standard deviation	Tracking error
8.5%	7.5%	0.35%	1.1	1.97	2.2%

Irma admits to not fully understanding all the details about the REIT, in particular what 'closed-ended' means. She has asked the adviser to explain how both closed-ended and open-ended fund structures could be used for the planned investment.

Questions

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

(a) **(i)** Calculate, **showing all your workings**, the Sharpe ratio for the REIT. **(4)**

(ii) Explain **three** main differences between the Sharpe ratio and the Information ratio. **(6)**

(iii) State **four** drawbacks of using the Sharpe ratio in investment planning. **(4)**

(b) **(i)** State the main rules that a fund must adhere to in order to qualify as a REIT. **(8)**

(ii) Irma receives an income payment of £2,950 from the REIT, consisting of a £750 property income distribution and a £2,200 dividend.

Calculate, **showing all your workings**, her Income Tax liability on this payment. *Assume Irma is a higher rate taxpayer and this is the only dividend she receives.* **(7)**

(c) Given their previous experience of equity-based investing, Irma and Christopher decide to invest the £190,000 equally across three UK equity funds.

(i) Identify **four** main risks relating to the achievement of their objective to which Irma and Christopher would be exposed. **(4)**

(ii) From a behavioural finance perspective:

State **three** main biases that may have influenced their investment decision and provide **one** justification for each bias. **(6)**

(d) **(i)** Outline **six** main reasons why a financial adviser would use an investment trust rather than an open-ended investment company (OEIC) when investing in the same sector of the market. **(6)**

(ii) List **four** open-ended fund structures that could be used to invest in UK equities. *Exclude OEICs from your answer.* **(4)**

QUESTIONS CONTINUE OVER THE PAGE

(e) Explain **three** relative differences between what is measured by alpha and beta. **(6)**

(f) **(i)** Calculate, **showing all your workings**, the time-weighted rate of return (TWR) for the GIA over the twelve-month period shown in **Table 1**. **(13)**

(ii) Explain briefly why Irma and Christopher would use the TWR, rather than the money-weighted rate of return (MWR), when evaluating the performance of the GIA. **(3)**

(g) Identify **two** aspects of personal taxation that would change if Irma and Christopher were to get married and state how **each** could result in potential tax savings. **(4)**

(h) Explain briefly the main **drawbacks** of holding a fund that invests on a single theme or thematic basis. **(5)**

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), (e) and (f) which follow.

Catherine, aged 66, has recently retired. She receives net pension income of £19,500 per annum and has a target net income of £25,000 per annum in order to meet her retirement income needs. Catherine has an initial time horizon of the next ten years.

Catherine has an existing investment portfolio as per the details set out in Table 1 below.

Table 1

Product type	Original value	Current value	Current yield
Stocks and shares ISA	-	£90,000	4.2%
Onshore investment bond	£40,000	£50,000	-

Catherine's stocks and shares ISA consist of UK blue chip equities that Catherine has held since their purchase at initial public offering following privatisation. The 4.2% dividend yield includes both interim and final dividends over the previous 12 month period. As the dividends vary Catherine would like to explore ways of generating a fixed level of income.

The investment bond has been used solely for capital growth since inception but Catherine would now like to explore how this asset can help meet her income objective.

Both investment products are held directly with individual product providers but following a meeting with her financial adviser, the possibility of consolidating the assets onto a platform has been discussed. The adviser is now looking at how a platform could meet Catherine's needs.

The adviser has mentioned to Catherine that as all the ISA investments are in UK blue chip equities, they may have a high level of correlation.

Catherine has sufficient money in her current account to cover her short-term expenditure but may require occasional capital from her portfolio to meet unplanned or discretionary expenditure. She has heard the term 'current account' referred to in respect of the UK economy and has asked the adviser to explain this term.

Questions

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

(a) **(i)** Identify the due diligence factors **solely** relating to meeting Catherine's income needs that the adviser would consider when assessing a potential platform. **(4)**

(ii) Identify the main income options available via the cash account that would enable a platform to meet Catherine's income needs. **(3)**

(b) **(i)** Calculate, **showing all your workings**, the shortfall in Catherine's target income based upon her current pension and ISA income. **(4)**

(ii) Describe how the investment bond could be used to generate the figure in your answer **in part (b)(i)** above and state the basic tax treatment of this figure. **(5)**

(c) **(i)** Briefly describe sequencing risk. **(6)**

(ii) State **five** actions that could be taken to mitigate the effects of sequencing risk. **(5)**

(d) Identify the main differences between an interim and a final dividend. **(6)**

(e) Describe briefly what it meant by the term 'correlation' in relation to investment planning. **(3)**

(f) Identify the **four** components of an economy's current account. **(4)**

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), (d) and (e) which follow.

Gregor is an investment adviser within an authorised firm. Following an initial meeting with a new retail client, he is analysing the client's existing investment portfolio and considering potential solutions to meet their investment needs.

The client has an existing portfolio of collective funds that are invested in UK and international equities. The portfolio is currently valued at £130,000 and in line with the client's ethical preference, all of the funds apply a negative screening approach. Following the maturity of a long-term savings plan, the client has received £60,000 and wishes to add this capital to their investment portfolio.

In addition to the portfolio, the client also owns two UK-listed equities on a direct basis, details of which are set out in Table 1 below.

Table 1

Equity	Share price	Earnings per share	Price earnings ratio	Dividend per share	Dividend cover
Azure Tree plc	151p	7.6p	19.87	7.9p	-
Sienna Wall plc	127p	28p	4.54	15p	1.87

The client relies upon the dividends from these two equities to provide a proportion of their income requirement. The client has given Gregor the recent annual reports for both companies and commented that they have widely differing return on equity (ROE) and return on capital employed (ROCE) figures.

Questions

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

(a) **(i)** State the main forms of ethical investment.
Exclude negative screening from your answer. **(3)**

(ii) Identify which other non-equity asset classes could be used for the new money, to diversify the existing portfolio while maintaining an overall ethical approach. **(4)**

(iii) Explain **three** reasons why an equity-based ethical investment strategy could out-perform an equity-based non-ethical investment strategy. **(3)**

(iv) State **four** fund-specific factors that an adviser would consider when researching ethical funds for potential inclusion in the portfolio. **(4)**

(b) **(i)** Calculate, **showing all your workings**, the dividend yield for Azure Tree plc. **(3)**

(ii) Calculate, **showing all your workings**, the dividend cover for Azure Tree plc. **(3)**

(iii) State **two** reasons for the difference in dividend cover between Azure Tree plc and Sienna Wall plc. **(2)**

(iv) Identify **three** implications to a company of paying out an uncovered dividend. **(3)**

(c) From the financial information for each company contained in **Table 1**:

Identify **one** ratio that would appeal to a growth-orientated fund manager and **one** ratio that would appeal to a value-orientated fund manager and **state two** reasons for **each** selection. **(6)**

(d) Gregor believes that the economy is moving into the latter stages of the business cycle.

(i) State **two** reasons why this view would likely have a positive impact on **Sienna Wall plc's** share price in the short to medium term. **(2)**

(ii) State **two** reasons why this view would likely have a negative impact on **Azure Tree plc's** share price in the short to medium term. **(2)**

(e) Explain to the client the main differences between ROE and ROCE. **(5)**

Total marks available for this question: 40

The tax tables can be found on pages 13 – 20

INCOME TAX

RATES OF TAX	2019/2020	2020/2021
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	£37,500	£37,500
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

*Only applicable to savings income that falls within the first £5,000 of income in excess of the personal allowance

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) §	£12,500	£12,500
Married/civil partners (minimum) at 10% †	£3,450	£3,510
Married/civil partners at 10% †	£8,915	£9,075
Marriage Allowance	£1,250	£1,250
Income limit for Married Couple's Allowance†	£29,600	£30,200
Rent a Room scheme – tax free income allowance	£7,500	£7,500
Blind Person's Allowance	£2,450	£2,500
Enterprise Investment Scheme relief limit on £2,000,000 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.
*** Investment above £1,000,000 must be in knowledge-intensive companies.*

Child Tax Credit (CTC)		
- Child element per child (maximum)	£2,780	£2,830
- family element	£545	£545
Threshold for tapered withdrawal of CTC	£16,105	£16,385

NATIONAL INSURANCE CONTRIBUTIONS

Class 1 Employee	**Weekly**
Lower Earnings Limit (LEL)	£120
Primary threshold	£183
Upper Earnings Limit (UEL)	£962

Total earnings £ per week	**CLASS 1 EMPLOYEE CONTRIBUTIONS**
Up to 183.00*	Nil
183.00 – 962.00	12%
Above 962.00	2%

**This is the primary threshold below which no NI contributions are payable. However, the lower earnings limit is £120 per week. This £120 to £183 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 169.00**	Nil
169.00 – 962.00	13.8%
Excess over 962.00	13.8%

*** Secondary earnings threshold.*

Class 2 (self-employed)	Flat rate per week £3.05 where profits exceed £6,475 per annum.
Class 3 (voluntary)	Flat rate per week £15.30.
Class 4 (self-employed)	9% on profits between £9,500 - £50,000. 2% on profits above £50,000.

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
2018/2019	£1,030,000
2019/2020	£1,055,000
2020/2021	£1,073,100

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.

ANNUAL ALLOWANCE

TAX YEAR	ANNUAL ALLOWANCE
2015/2016	£40,000~
2016/2017	£40,000*
2017/2018	£40,000*
2018/2019	£40,000*
2019/2020	£40,000*
2020/2021	£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 by £1 for every £2 of 'adjusted income' over £240,000 to a minimum of £4,000 if 'threshold income' is also over £200,000.*

MONEY PURCHASE ANNUAL ALLOWANCE	2019/2020	2020/2021
	£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	2019/2020	2020/2021
Individuals, estates etc	£12,000	£12,300
Trusts generally	£6,000	£6,150
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%
	10%	10%
Business Asset Disposal Relief* – Gains taxed at:		
Lifetime limit	£10,000,000	£1,000,000

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

INHERITANCE TAX

RATES OF TAX ON TRANSFERS	2019/2020	2020/2021
Transfers made on death		
- Up to £325,000	Nil	Nil
- Excess over £325,000	40%	40%
Transfers		
- 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*	£150,000	£175,000
- 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%

PRIVATE VEHICLES USED FOR WORK

	2019/2020 Rates	2020/2021 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

	2019/2020	2020/2021
Plant & machinery (excluding cars) 100% annual investment allowance (first year)	£1,000,000	£1,000,000
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	6%	6%
Energy & water-efficient equipment	100%	100%
Zero emission goods vehicles (new)	100%	100%
Electric charging points	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% first year	18% reducing balance	6% reducing balance

**If new*

MAIN SOCIAL SECURITY BENEFITS

		2019/2020	2020/2021
		£	£
Child Benefit	First child	20.70	21.05
	Subsequent children	13.70	13.95
	Guardian's allowance	17.20	17.90
Employment and Support Allowance	Assessment Phase		
	Age 16 - 24	Up to 57.90	Up to £58.90
	Aged 25 or over	Up to 73.10	Up to £74.35
	Main Phase		
	Work Related Activity Group	Up to 102.15	Up to 74.35
	Support Group	Up to 111.65	Up to 113.55
Attendance Allowance	Lower rate	58.70	59.70
	Higher rate	87.65	89.15
Basic State Pension	Single	129.20	134.25
	Married	201.45	268.50
Single Tier State Pension	Single	168.60	175.20
Pension Credit	Single person standard minimum guarantee	167.25	173.75
	Married couple standard minimum guarantee	255.25	265.20
	Maximum savings ignored in calculating income	10,000.00	10,000.00
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
Jobseeker's Allowance	Age 18 - 24	57.90	58.90
	Age 25 or over	73.10	74.35
Statutory Maternity, Paternity and Adoption Pay		148.68	151.20

CORPORATION TAX

	2019/2020	2020/2021
Standard rate	19%	19%

VALUE ADDED TAX

	2019/2020	2020/2021
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%

Important note: For residential properties purchased between 8th July 2020 and 31st March 2021, Stamp Duty Land Tax does not apply up to £500,000. For purchases above £500,000, the band rates above apply as normal. Additional SDLT rules still apply as below.

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 may be 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.

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

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