AF4

THE CHARTERED INSURANCE INSTITUTE

MONDAY 19 OCTOBER 2009

ADVANCED DIPLOMA IN FINANCIAL PLANNING
AF4 — INVESTMENT PLANNING

SPECIAL NOTICES

- **All questions in this paper are based on English law and practice applicable in the tax year 2009/2010, unless stated otherwise and should be answered accordingly.**
- **Assume all individuals are domiciled, resident and ordinarily resident in the UK unless stated otherwise.**

INSTRUCTIONS

- **Three hours are allowed for this paper.**
- **Read the instructions overleaf carefully before answering any questions.**
- Fill in the information requested on the answer book and form B.
- 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 and you must enter the serial number, model and make on the 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.
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- Please ensure that you have completed the front cover of the answer book with the information requested, before you hand it in. 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.**

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AF4 — Investment planning

CANDIDATE INSTRUCTIONS

READ THE INSTRUCTIONS BELOW BEFORE ANSWERING ANY QUESTIONS

Three hours are allowed for this paper. You should answer **all** questions in Sections A and B.

The paper 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** the required 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.

Any rough notes made in your answer book must be crossed through before you hand it in.

Tax tables are provided at the back of this paper.

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

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

Please ensure that you understand the Special Notices printed in the box on the front page.

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

Jonathan Dryton, aged 52, is divorced with no children and is a higher-rate taxpayer. He is a director at a London university and is planning to retire at age 60.

Jonathan has an existing portfolio of collective investments and shares; he is concerned by the performance of his portfolio.

Two of the UK shares that are included in Jonathan's portfolio are making rights issues, Bank-U-Like plc at a 20% discount below the current share price, on a 2 for 5 basis. Bank ABC plc will price their rights at a discount of 50% to their current share price on a 1 for 2 basis.

Jonathan is considering whether he should take up either of these rights issues and is uncertain about retaining them. He would like your advice.

Table 1 – Shares

Equities	Expected Return %	Annual Return %	Probability 12 month	Share Price p	Number of Shares
Bank-U-Like plc	16.50	3.35	0.4	178	11,000
Bank ABC plc	14.95	2.85	0.3	412	5,500

Jonathan invested £200,000 in October 2008 into Ultra Equity Growth fund of funds, split equally between a unit trust, using accumulation units and an offshore bond. Ultra Equity Growth fund of funds distributed income of £1,250 on 30 September 2009 on each holding. The value of each holding as at 1 October 2009 was £101,585. Jonathan has already used his annual Capital Gains Tax (CGT) allowance for the current tax year 2009/2010.

You are conducting a review meeting with Jonathan regarding his existing portfolio. A summary of Jonathan's current portfolio is shown in Table 2 on page 5.

Table 2 – Current Portfolio

Asset Class	Value	Capital Value	Portfolio Weighting	Benchmark Weighting	Index Change
	As at 1/10/2006 £	As at 1/10/2009 £	As at 1/10/2009 %	APCIMS Growth Index %	1/10/2006 to 1/10/2009 %
UK equities	213,750	226,895	46.43	47.50	6.90
International equities	135,000	160,635	32.87	30.00	11.35
Bonds	22,500	24,365	4.99	5.00	8.85
Cash	22,500	22,605	4.63	5.00	1.05
Commercial property	22,500	19,245	3.94	5.00	-14.05
Hedge funds	33,750	34,985	7.16	7.50	5.20
Total	450,000	488,730			

Questions

To gain maximum marks you MUST show ALL your workings and express your answers to two decimal places.

(a) Jonathan is considering the rights issues for Bank-U-Like plc and Bank ABC plc.

(i) Calculate, **showing all your workings**, the average price for **each** of Bank-U-Like plc and Bank ABC plc, after the rights issue. **(10)**

(ii) Identify **three** reasons why Bank-U-Like plc and Bank ABC plc may want to make a rights issue. **(3)**

(iii) State **four** factors Jonathan should consider on the Bank-U-Like plc and Bank ABC plc rights issue before accepting or rejecting them. **(4)**

(iv) Describe briefly how Bank-U-Like plc and Bank ABC plc post-rights share price is likely to be arrived at after a rights issue. **(3)**

(b) **(i)** Calculate, **showing all your workings**, the annual volatility for each of Bank-U-Like plc and Bank ABC plc. **(8)**

(ii) Using one standard deviation, calculate, **showing all your workings**, the range of returns expected from Bank-U-Like plc and Bank ABC plc. **(5)**

(iii) Comment briefly on the results of **(b)(i)** and **(ii)** above, with relevance to risk and return and identify which share has the higher risk. **(3)**

Question (c), (d) and (e) can be found on page 7

(c) Jonathan would like to know which of his Ultra Equity Growth fund of funds holdings, within a unit trust or offshore bond, will give the higher return after tax, if he sells them on 1 October 2009. Both investments are solely owned by Jonathan.

(i) Calculate, **showing all your workings**, the value after tax of each holding and identify which has the higher net of tax return. **(11)**

(ii) Explain briefly to Jonathan the reasons for the higher net return in **(c)(i)** above. **(4)**

(d) **(i)** Calculate, **showing all your workings**, the performance of the APCIMS Growth Index Benchmark between 1 October 2006 and 1 October 2009. **(7)**

(ii) Calculate, **showing all your workings**, the expected return of the portfolio, based upon the asset allocation of the portfolio as at 1 October 2009. **(7)**

(iii) Identify if the portfolio outperformed or underperformed its benchmark and state what factors contributed most to the performance of the portfolio against the benchmark. **(5)**

(e) Calculate, **showing all your workings**, the annualised return for Jonathan's portfolio between 1 October 2006 and 1 October 2009. Compare this to the benchmark annualised return, identifying the annual difference. **(10)**

Total marks available for this question: 80

SECTION B

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

Question 2

Bruno Marcotti, aged 63, is a retired architect who has a substantial and diversified portfolio mainly within an unsecured self-invested pension, which is his main source of income. Bruno is an experienced investor who takes an ongoing interest in the make up and progress of his investments. He is a higher-rate taxpayer.

He has decided that the corporate bond sector offers worthwhile opportunities, especially for investors seeking income and intends to increase his weighting in that sector by purchasing a further corporate bond. He has noticed, however, that corporate bond prices are subject to varying degrees of volatility when interest rates fluctuate and he is keen to minimise this volatility.

Bruno has researched the corporate bond market and narrowed down the possibilities to two securities, Western Foods and Safebury as shown in Table 1 below. He has asked you to advise as to which of these he should purchase, given his requirements and concerns. He has also asked you to calculate the approximate change in the value of each bond if interest rates increase by 1%.

Table 1

Bond	Coupon payment	Yield to Maturity	Price (clean) £ (£1,000 Par)	Macauley Duration
Western Foods 5% 1 October 2014	Annual	7.5%	898.853	4.517
Safebury 4% 1 October 2013	Annual	7.5%	882.77	4.607

Bruno has also asked you to consider the possibilities offered by a Real Estate Investment Trust (REIT) in the context of his Individual Savings Account (ISA). Bruno is concerned that the value may be affected in the event of a prolonged recession and resultant deflationary pressures.

Questions

To gain maximum marks you MUST show ALL your workings and express your answers to two decimal places.

(a) **(i)** Explain briefly what is expressed by the duration of a bond. **(3)**

(ii) Calculate, **showing all your workings**, the modified duration of Western Foods and Safebury corporate bonds. **(6)**

(iii) Calculate, **showing all your workings**, the change to the value of **each** bond if interest rates were to rise by 1%. **(6)**

(iv) Explain why in **(a)(ii)** and **(iii)** above, the duration of the bond is a key indicator for Bruno. Taking all your calculations into account, identify which bond you would recommend and why. **(6)**

(b) **(i)** Explain to Bruno how the tax treatment of a Property Income Distribution (PID) from the Real Estate Investment Trust (REIT) within an Individual Savings Account (ISA) differs from the dividend paid by an equity based within an ISA. **(4)**

(ii) Explain how you expect the demand for commercial property to respond to prolonged recession and what the likely impact on rental income and yields may be. **(5)**

(iii) Define deflation in terms of the Retail Prices Index. **(2)**

(iv) Explain briefly what effect deflation may have on demand and what this would imply about individual's spending patterns. **(3)**

(v) If there is no further scope for interest rate cuts, state how a central bank might attempt to meet the threat of deflation. **(5)**

Total marks available for this question: 40

Question 3

A client, Rod Green, has requested a meeting with you to discuss his portfolio performance and some potential new alternative investments including a recently launched 130/30 UK growth fund and a new Total Return Fund. He also wants to discuss the Absolute Return Fund you recently purchased for him.

Rod wants to review the discretionary managed portfolio run by your firm on his behalf. He is an investor prepared to take a high risk, although he is keen to see his portfolio adopt strategies that mitigate losses where practical and take advantage of upturns where possible.

At his request, his portfolio has a number of Exchange Traded Funds (ETFs) at its core and he has asked you to advise him whether he should include the Total Return Fund.

Although Rod has been renting a house for some years, he feels that the property market is likely to pick up in a couple of years time, when he will consider buying. He will then require £500,000 to buy a house and you have agreed with him to allocate a proportion of his portfolio to cash and lower risk investment targeted at a 4% per annum growth.

His portfolio is shown in Table 1 below.

Table 1

	Cash	UK Equities	International Equities	Bonds	Total
Current value £	160,000	520,000	340,000	180,000	1,200,000

Questions

To gain maximum marks you MUST show ALL your workings and express your answers to two decimal places.

(a) **(i)** Explain briefly to Rod what is meant by the term alternative investment. **(2)**

(ii) List **five** different classes of alternative investments. **(5)**

(b) Explain to Rod how a 130/30 fund typically structures its investment by describing how a new investment of £100,000 will be invested by the fund manager into each constituent of the fund. **(7)**

(c) **(i)** Describe briefly to Rod the characteristics of a typical Total Return Fund. **(5)**

(ii) Explain to Rod how the recently purchased Absolute Return Fund differs from the Total Return Fund he is contemplating. **(8)**

(iii) Describe briefly the term counterparty risk and how it may apply to the FTSE 100 Exchange Traded Fund (ETF) Rod owns. **(4)**

(d) **(i)** Calculate, **showing all your workings**, how much money you must allocate now to provide Rod with his £500,000 to buy a house in two years time. **(4)**

(ii) Assuming a sustained falling equity market, identify the highest and lowest of the following four fund strategies in the order of their expected volatility of returns: FTSE 100 Exchange Traded Funds; Total Return Funds; Absolute Return Funds; 130/30 funds. **(2)**

(iii) Identify **one** of the fund strategies from **(d)(ii)** above, that you would utilise in addition to cash for Rod's house funds and explain why. **(3)**

Total marks available for this question: 40

TAX TABLES

INCOME TAX RATES

2009/2010		2008/2009	
Rate	**Band**	**Rate**	**Band**
%	**£**	**%**	**£**
10	1 - 2,440*	10	1 – 2,320*
20	1 – 37,400	20	1 – 34,800
40	Over 37,400	40	Over 34,800

* A new 10% starting rate is applied for savings income only from 06.04.2008. Only applicable where non-savings income after allowances is under £2,440 for 2009/2010.

NATIONAL INSURANCE CONTRIBUTIONS

2009/2010 Rates

Class 1 Employee	**Weekly**	**Monthly**	**Yearly**
	£	**£**	**£**
Lower Earnings Limit (LEL)	95	412	4,940
Upper Earnings Limit (UEL)	844	3,656	43,875
Upper Accruals Point	770	3,337	40,040

	Class 1 Employee contributions 2009/2010	
Total earnings £ per week	**Contracted-in rate**	**Contracted-out rate**
	%	**%**
Up to 110.00*	Nil	Nil
110.01 – 770.00	11	9.4
770.01 – 844.00	11	11
Above 844.00	1	1

	Class 1 Employer contributions 2009/2010		
Total earnings £ per week	**Contracted-in rate**	**Contracted-out rate**	
		Final salary	Money purchase
	%	**%**	**£**
Below 110.00**	Nil	Nil	Nil
110.01 – 770.00	12.8	9.1	11.4
770.01 – 844.00	12.8	12.8	12.8
Excess over 844.00	12.8	12.8	12.8

* This is the primary threshold below which no NI contributions are payable. However, the lower earnings limit is £95 per week. This £95 to £110 band is a zero rate band introduced in order to protect lower earners' rights to contributory State benefits e.g. Basic State Pension.

** Secondary earnings threshold.

Class 2 (self-employed)	Flat rate per week £2.40 where earnings exceed £5,075 per annum.
Class 3 (voluntary)	Flat rate per week £12.05
Class 4 (self-employed)	8% on profits between £5,715 - £43,875 plus 1% on profits above £43,875

INCOME TAX RELIEFS

	2009/2010 £	2008/2009 £
Personal (basic)	6,475	6,035
Personal (age 65-74)	9,490	9,030
Personal (aged 75 and over)	9,640	9,180
Married/civil partners (minimum) at 10% †	2,670	2,540
Married/civil partners (age under 75) at 10% †	N/A	6,535
Married/civil partners (age 75 and over) at 10%	6,965	6,625
Age-related relief reduced by 50% of income over	22,900	21,800
Child Tax Credit (CTC)		
family element	545	545
family element baby addition	545	545
CTC usually reduced by 6.67% of joint income over	50,000	50,000
Blind person's allowance	1,890	1,800
Enterprise Investment Scheme relief limit @ 20%	500,000	500,000
Venture Capital Trust relief limit @ 30%	200,000	200,000

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

PENSIONS

Lifetime Allowance		Annual Allowance	
2006/2007	£1.5 million	2006/2007	£215,000
2007/2008	£1.6 million	2007/2008	£225,000
2008/2009	£1.65 million	2008/2009	£235,000
2009/2010	£1.75 million	2009/2010	£245,000
2010/2011	£1.8 million	2010/2011	£255,000

Notional Earnings Cap

£123,600 – (For schemes that require post 1989 benefits to be still subject to a cap)

Annual allowance charge

40% 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.

CAR AND FUEL BENEFITS

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 2009/2010:
The percentage charge is 15% of the car's list price for CO_2 emissions at or below the qualifying level of 135g/km.
The base percentage charge of 15% increases in 1% steps for every additional full 5g/km over the 135g/km threshold, up to a maximum of 35% of the car's list price.
A lower percentage charge of 10% of the car's list price applies for emissions at or below 120g/km.

If price of car exceeds £80,000 then its price for tax purposes will be fixed at £80,000.

There is an additional 3% supplement for diesel cars not meeting Euro IV emission standards or registered after 31 December 2005. However, the maximum charge remains 35% 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 (£16,900 for 2009/2010) e.g. car emission 160g/km = 20% on car benefit scale. 20% of £16,900 = £3,380.

Notes:

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 12.8%.

PRIVATE VEHICLES USED FOR WORK

2009/2010 rates

Cars	
On the first 10,000 business miles in tax year	40p per mile
Each business mile above 10,000 business miles	25p per mile
Motor Cycles	24p per mile
Bicycles	20p per mile

INHERITANCE TAX

	2009/2010	2008/2009
Nil-rate band*	£325,000	£312,000
Rate of tax on excess	40%	40%
Lifetime transfers to and from certain trusts	20%	20%
Overseas domiciled spouse/civil partner exemption	£55,000	£55,000

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
% of death charge	100	80	60	40	20
Annual exempt gifts	£3,000 per donor			£250 per donee	

* From 8 October 2007 up to 100% of the unused proportion of a deceased spouse's/civil partner's nil-rate band can be claimed on the surviving spouse's/civil partner's death.

MAIN SOCIAL SECURITY BENEFITS

		From 06.04.09 £	From 06.04.08 £
Child Benefit	first child	20.00	20.00*
	subsequent children	13.20	13.20*
Incapacity Benefit	short-term lower rate**	67.75	63.75
	short-term higher rate**	80.15	75.40
	long-term rate	89.80	84.50
Attendance Allowance	lower rate	47.10	44.85
	higher rate	70.35	67.00
Retirement Pension	single	95.25	90.70
	married	152.30	145.05
Pension Credit	single person standard minimum guarantee	130.00	124.05
	married couple standard minimum guarantee	198.45	189.35
	maximum savings ignored in calculating income	6,000	
	increased from November 2009	10,000	
Bereavement Benefit (lump sum)		2,000.00	2,000.00
Widowed Parent's allowance		95.25	90.70
Jobseekers Allowance		64.30	60.50

* From 5 January 2009
** Under State Pension Age

VALUE ADDED TAX

Standard rate	15%*/17.5%**
Annual registration limit - from 1 May 2009	£68,000

* Effective from 1 December 2008
** Effective from 1 January 2010

CORPORATION TAX

Financial Year	**2009** to 31/3/10	**2008** to 31/3/09
Full rate	28%	28%
Small companies rate	21%	21%
Small companies limit	£300,000	£300,000
Effective marginal rate	29.75%	29.75%
Upper marginal limit	£1,500,000	£1,500,000

CAPITAL ALLOWANCES

Plant & machinery 100% annual investment allowance (first year)			£50,000
Plant & machinery in excess of annual investment allowance (first year)			40%
Plant & machinery, patent rights, know-how (reducing balance) per annum			20%
Certain long-life assets, integral features of buildings (reducing balance) per annum			10%
Industrial & agricultural buildings (straight line)			2%
Energy & water-efficient investments			100%
Qualifying flat conversions & business premises renovations			100%
Motor cars:	with emissions in excess of 160g/km		10%
	generally		20%*
	with CO2 emissions of 110g/km or less		100%
Research & Development:	Capital expenditure		100%
	Revenue expenditure	- small/medium-size firms	175%
		- large firms	130%

* Maximum £3,000

CAPITAL GAINS TAX

Exemptions		**2009/2010**	**2008/2009**
Individuals, estates etc		£10,100	£9,600
Trusts generally		£5,050	£4,800
Chattels proceeds (5/3 excess gain is taxable)		£6,000	£6,000
Rates	Individuals	18%	18%
	Trusts and estates	18%	18%

ENTREPRENEURS' RELIEF

Entrepreneur's Relief 2009/2010
$4/9^{ths}$ of gain tax free. Lifetime limit eligible for relief: £1,000,000
For trading businesses and companies (minimum 5% employee shareholding) held for 1yr+

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