

AF4

Advanced Diploma in Financial Planning

Unit AF4 – Investment planning

October 2015 examination

SPECIAL NOTICES

All questions in this paper are based on English law and practice applicable in the tax year 2015/2016, 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.

Donna is concerned that her portfolio of investments is not making good returns. Donna has no debts and wants to invest for capital growth over the next 10 years as she is planning to retire. Acting as her financial adviser you have agreed that a suitable benchmark is the FTSE Wealth Management Association (WMA) growth index.

Table 1 – Donna’s Portfolio and FTSE WMA growth index benchmark (over the past two years)

| Sector | Portfolio allocation | Performance | FTSE WMA growth benchmark allocation | FTSE WMA growth benchmark performance |
|----------------------|----------------------|-------------|--------------------------------------|---------------------------------------|
| | % | % | % | % |
| UK Equity | 40 | 16 | 40 | 12.5 |
| International Equity | 20 | 15 | 37.5 | 20 |
| Bonds | 15 | 14 | 7.5 | 12 |
| Cash | 10 | 2.75 | 2.5 | 3 |
| Commercial Property | 5 | 12 | 5.0 | 14 |
| Hedge Funds | 10 | 3 | 7.5 | 5.5 |
| Total | | | | 14.59 |

Donna is aware that the economy may be heading for deflation and she would like you to explain the impact this may have on the economy.

Table 2 – Donna’s investment funds

| Fund name | Standard deviation | Sharpe ratio | 12 month return |
|--------------------------------------|--------------------|--------------|-----------------|
| Blue Lion Asian Equity growth fund | 12 | -0.33 | |
| Green Fox UK Equity growth fund | 6.5 | 1.62 | |
| Lassister high performance bond fund | 3.5 | | 10 |

Donna is aware that she can get a risk free return of 1.5% per annum.

Questions

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

- (a) Using the information in **Table 1**:
- (i) Calculate, **showing all your workings**, the total percentage return from Donna's portfolio over the past two years. (7)
 - (ii) Calculate, **showing all your workings**, what Donna's total percentage return would have been over the period, if her asset allocation had been the same as the benchmark. (7)
 - (iii) Comment on how Donna's asset allocation and stock selection decisions contributed to her portfolio performance in comparison to the benchmark. (12)
 - (iv) Explain briefly the purpose of using a benchmark in the investment process. (4)
- (b)
- (i) Explain briefly the definition of deflation. (2)
 - (ii) Describe why deflation may be damaging to the economy. (8)
 - (iii) Explain briefly the actions a central bank and government could take to counteract deflation. (6)
- (c)
- (i) Identify the additional client specific information you would require from Donna before making an investment recommendation to her. (8)
 - (ii) Explain briefly to Donna the importance of asset allocation when constructing a portfolio. (4)
 - (iii) Explain briefly to Donna why both strategic and tactical asset allocation may be utilised in her portfolio. (6)

QUESTIONS CONTINUE OVER THE PAGE

- (d)** Using the information in **Table 2**:
- (i)** Explain briefly to Donna why the Sharpe ratio would be used to analyse the performance of Donna's investment funds. **(3)**
 - (ii)** Calculate, **showing all your workings**, the Sharpe ratio of the Lassister high performance bond fund. **(3)**
 - (iii)** Compare the relative risk and returns of the three funds identified in Donna's portfolio. **(6)**
 - (iv)** State the main limitations of the Sharpe ratio. **(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.

John requires funds in six and ten years time to pay for university fees for his two children.

John is interested in two structured products as detailed in Tables 1 and 2 below:

Table 1 – structured capital at risk product (SCARP)

| | |
|--------------------------------|--|
| Term | Six years. |
| Return | 10% per annum non-compounded. |
| Early repayment/kick-out terms | On any plan anniversary, if the FTSE 100 Index is greater than its start level, the plan will kick-out. |
| Final maturity date | The plan's sixth anniversary. |
| Capital risk | If the FTSE 100 Index falls by more than 50% from the starting level at any point during the plan, and finishes lower than the starting level, the initial investment will be reduced by 1% for every 1% fall in the FTSE 100 Index at the end of the plan, otherwise full capital return. |
| Index | FTSE 100 Index. |

Table 2 – deposit based structured plan

| | |
|--------------------------------|--|
| Term | Six years. |
| Return | 31% provided the FTSE 100 Index is above its level at the start of the plan. |
| Early Repayment/kick-out terms | N/A |
| Final maturity date | The plan's sixth anniversary. |
| Capital risk | N/A |
| Index | FTSE Index 100. |

John is also considering the Target 2025 open-ended investment companies (OEICs) fund which is designed for investors who intend to withdraw a substantial amount of their investment in the year 2025.

Questions

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

- (a) Calculate, **showing all your workings**, for the structured capital at risk product (SCARP):
- (i) The return if the product runs for the full term with the FTSE 100 Index at a higher level than its initial level. (2)
 - (ii) The annual compound growth rate on the product if it matures at the end of the six-year period with the FTSE 100 Index at a higher level than its initial level. (4)
- (b) Explain briefly to John the features and risks he should consider before investing in the SCARP. (8)
- (c) State **seven** advantages of investing in a FTSE 100 tracker fund compared to the SCARP. (7)
- (d) Explain briefly the additional safeguards that the deposit based structured product has compared to the SCARP. (2)
- (e) Explain briefly to John the risks of the deposit based structured product. (3)
- (f) Explain briefly the reasons why the Target 2025 OEIC fund may be appropriate for John. (6)
- (g) State **four** behavioural biases that investors typically show and, for each, explain how the Target 2025 OEIC fund may overcome this. (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), (c) and (d)** which follow.

Paul, a full-time student, has recently inherited £300,000 from his late father and is looking at investment options for long term capital growth.

Paul has no requirement for the inheritance to produce an income as he receives a dependant's pension of £12,000 from his late father's occupational pension scheme.

You have been discussing with Paul investing the inheritance through a discretionary fund manager. Paul is considering self-managing part of his portfolio, selecting his own equity holdings, two of which are detailed below:

| Company Name | Share price | Dividend per share | Earnings per share | Dividend cover |
|-------------------------|--------------------|---------------------------|---------------------------|-----------------------|
| Paramel Enterprises plc | 220p | 11p | | 2.5 |
| Hawthorne Services plc | 320p | 24p | 18p | |

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 dividend yield and earnings per share for Paramel Enterprises plc. (5)
- (ii) Calculate, **showing all your workings**, the dividend cover for Hawthorne Services plc. (3)
- (iii) Compare the dividend cover and the dividend yield of both equity holdings. (7)
- (iv) Comment on the suitability of Paul investing in Paramel Enterprises plc, given his stated investment objectives. (5)
- (b) List **five** benefits and **five** drawbacks of investing in a personally selected portfolio of direct equities compared to a discretionary managed portfolio. (10)
- (c) Identify the expenses that Paul might be subject to if he uses the services of a discretionary fund manager (DFM). (6)
- (d) Explain why a DFM may purchase a collective investment for Paul's portfolio. (4)

Total marks available for this question: 40

The tax tables can be found on pages 13 – 19

INCOME TAX

| RATES OF TAX | 2014/2015 | 2015/2016 |
|---|-----------|-----------|
| Starting rate for savings* | 10% | 0% |
| Basic rate | 20% | 20% |
| Higher rate | 40% | 40% |
| Additional rate | 45% | 45% |
| Starting-rate limit | £2,880* | £5,000* |
| Threshold of taxable income above which higher rate applies | £31,865 | £31,785 |
| 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 |
|--|---------|---------|

*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) § | £10,000 | £10,600 |
| Personal Allowance (if born between 6 April 1938 and 5 April 1948) § | £10,500 | £10,600 |
| Personal Allowance (if born before 6 April 1938) § | £10,660 | £10,660 |
| Married/civil partners (minimum) at 10% † | £3,140 | £3,220 |
| Married/civil partners at 10% † | £8,165 | £8,355 |
| Transferable tax allowance for married couples/civil partners | N/A | £1,060 |
| Income limit for age-related allowances § | £27,000 | £27,700 |
| Blind Person's Allowance | £2,230 | £2,290 |
| 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% |

§ 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) | £2,750 | £2,780 |
| - family element | £545 | £545 |
| Threshold for tapered withdrawal of CTC | £16,010 | £16,105 |

NATIONAL INSURANCE CONTRIBUTIONS

| Class 1 Employee | Weekly | Monthly | Yearly |
|----------------------------|--------|---------|---------|
| Lower Earnings Limit (LEL) | £112 | £486 | £5,824 |
| Primary threshold | £155 | £672 | £8,060 |
| Upper Accrual Point | £770 | £3,337 | £40,040 |
| Upper Earnings Limit (UEL) | £815 | £3,532 | £42,385 |

| Total earnings £ per week | CLASS 1 EMPLOYEE CONTRIBUTIONS | |
|---------------------------|--------------------------------|------------------------------------|
| | Contracted-in rate | Contracted-out rate (final salary) |
| Up to 155.00* | Nil | Nil |
| 155.01 – 770.00 | 12% | 10.6% |
| 770.01 – 815.00 | 12% | 12% |
| Above 815.00 | 2% | 2% |

**This is the primary threshold below which no NI contributions are payable. However, the lower earnings limit is £112 per week. This £112 to £155 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 | |
| | | <i>Final salary</i> | <i>Money purchase</i> |
| Below 156.00** | Nil | Nil | Nil |
| 156.01 – 770.00 | 13.8% | 10.4% | 13.8% |
| 770.01 – 815.00 | 13.8% | 13.8% | 13.8% |
| Excess over 815.00 | 13.8% | 13.8% | 13.8% |

*** Secondary earnings threshold.*

| | |
|--------------------------------|---|
| Class 2 (self-employed) | Flat rate per week £2.80 where profits exceed £5,965 per annum. |
| Class 3 (voluntary) | Flat rate per week £14.10. |
| Class 4 (self-employed) | 9% on profits between £8,060 - £42,385. 2% on profits above £42,385. |

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 |
| 2015/2016 | £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.

| MONEY PURCHASE ANNUAL ALLOWANCE | 2014/2015 | 2015/2016 |
|---------------------------------|-----------|-----------|
| | N/A | £10,000* |

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.

§ increased to £80,000 from 6 April - 8 July 2015. If not used, can be carried forward to 9 July 2015 - 5 April 2016, subject to a maximum of £40,000.

* transitional rules apply to the calculation for pre/post 8 July 2015 position.

CAPITAL GAINS TAX

| EXEMPTIONS | 2014/2015 | 2015/2016 |
|---|-----------|-----------|
| Individuals, estates etc | £11,000 | £11,100 |
| Trusts generally | £5,500 | £5,550 |
| 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 TRANSFERS

| | 2014/2015 | 2015/2016 |
|---|-----------|-----------|
| 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% |

For deaths after 5 April 2015, 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 2015/2016:

- The percentage charge is 5% 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 9%.
- For cars with CO₂ emissions of 76g/km to 94g/km the percentage is 13%.
- Cars with CO₂ emissions of 95g/km have a percentage charge of 14% and thereafter the charge increases by 1% for every complete 5g/km to a maximum of 37% (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 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 (£22,100 for 2015/2016) e.g. car emission 100g/km = 15% on car benefit scale. 15% of £22,100 = £3,315.

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

| | 2014/2015 Rates | 2015/2016 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

| | 2014/2015 | 2015/2016 |
|---|-----------|-----------|
| Plant & machinery (excluding cars) 100% annual investment allowance (first year) § | £500,000 | £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 2015 (Corporation Tax) or 06 April 2015 (Income Tax)

| CO ₂ emissions of g/km: | 75 or less* | 76-130 | 131 or more |
|------------------------------------|-------------|------------------|------------------|
| Capital allowance: | 100% | 18% | 8% |
| | first year | reducing balance | reducing balance |

*If new

§ From 01 January 2016 allowance will decrease to £200,000.

CORPORATION TAX

| | 2014/2015 | 2015/2016 |
|-------------------------|------------|------------|
| Full rate | 21% | 20% |
| Small companies rate | 20% | 20% |
| Small companies limit | £300,000 | £300,000 |
| Effective marginal rate | 21.25% | 20% |
| Upper marginal limit | £1,500,000 | £1,500,000 |

VALUE ADDED TAX

| | 2014/2015 | 2015/2016 |
|-------------------------------|-----------|-----------|
| Standard rate | 20% | 20% |
| Annual registration threshold | £81,000 | £82,000 |
| Deregistration threshold | £79,000 | £80,000 |

MAIN SOCIAL SECURITY BENEFITS

| | | 2014/2015 | 2015/2016 |
|---|---|--------------|--------------|
| | | £ | £ |
| Child Benefit | First child | 20.50 | 20.70 |
| | Subsequent children | 13.55 | 13.70 |
| | Guardian's allowance | 16.35 | 16.55 |
| Employment and Support Allowance | Assessment Phase | | |
| | Age 16 – 24 | Up to 57.35 | Up to 57.90 |
| | Aged 25 or over | Up to 72.40 | Up to 73.10 |
| | Main Phase | | |
| | Work Related Activity Group | Up to 101.15 | Up to 102.15 |
| | Support Group | Up to 108.15 | Up to 109.30 |
| Attendance Allowance | Lower rate | 54.45 | 55.10 |
| | Higher rate | 81.30 | 82.30 |
| Retirement Pension | Single | 113.10 | 115.95 |
| | Married | 180.90 | 185.45 |
| Pension Credit | Single person standard minimum guarantee | 148.35 | 151.20 |
| | Married couple standard minimum guarantee | 226.50 | 230.85 |
| | 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 | | 111.20 | 112.55 |
| Jobseekers Allowance | Age 18 - 24 | 57.35 | 57.90 |
| | Age 25 or over | 72.40 | 73.10 |
| Statutory Maternity, Paternity and Adoption Pay | | 138.18 | 139.58 |

BLANK PAGE

BLANK PAGE

BLANK PAGE

