

SII Masters in Wealth Management - Financial Markets

Sample questions

Section A

Q1 Explain what is meant, in classical economic theory, by Say's Law. (5 Marks)

Answer can include the following (1 mark each point):

1. Say's Law states that supply will create its own demand. In effect, this is saying that where there is an excess of supply, the price will fall, thereby creating demand.
2. The end result of this is that the economy will always move to a point of equilibrium and that point of equilibrium (or balance) will always be the full employment level of activity in the economy.
3. If this were not the case, then those resources that were unemployed would lower their price so as to ensure that they found employment.
4. Classical economists therefore believe that in the long run, the economy will always be operating at its full employment level of activity.
5. This is a simple result of market forces and there is nothing that a government can do to alter this process.

(Ref. page 6 of the BPP study book.)

Q2 What is meant by Financial Disintermediation in relation to securitisation? (5 Marks)

Answer can include the following (1 mark each point):

1. **Securitisation of debt** involves disintermediation. **Financial disintermediation** is a process whereby ultimate borrowers and lenders by-pass the normal methods of financial intermediation
2. (such as depositing money with and borrowing money from banks)
3. and find other ways of lending or borrowing funds; or lend and borrow directly with each other, avoiding financial intermediation altogether.
4. Securitisation of debt provides firms with a method of borrowing directly from non-banks.
5. Although banks might act as managers of the debt issue, finding lenders who will buy the securitised debt, banks are not doing the lending themselves.

(Ref. page 43)

Q3 Explain what is meant by the entry “exceptional items” in a company’s Accounts

(5 Marks)

Answer can include the following (1 mark each point):

1. **Exceptional items** are unusual large items of income or expense arising during the year.
2. Historically in UK accounts exceptional items were separately classified to highlight their one-off or unusual nature.
3. Under International Financial Reporting Standards (IFRSs), there is no specific definition of an exceptional item,
4. however companies are still able to highlight expenses which they consider to be one off in nature or unusual.
5. Removing such items from the normal ongoing costs and separately highlighting them makes it easier to see ratios and trends in the ongoing performance figures of the company that may otherwise be missed.

(Ref. page 83)

Q4 Explain how the efficient frontier can help an investor create an optimal portfolio.

(5 Marks)

Answer can include the following (1 mark each point):

1. Considering all combinations of assets, a set of optimal portfolios is found: this set of portfolios, called the **efficient frontier**, is shown by a curve on the return/risk graph
2. (mark for graph)
3. Looking at just two alternatives, N and M, which are on the efficient frontier shown by the curved line in the diagram, which would an investor choose? The one that maximises the **expected utility** of his risk-return profile.
4. Regardless of the investor's attitude to risk, portfolios constructed from a combination of r_f and M provide a higher return for the same level of risk as those constructed from a combination of r_f and N and
5. Therefore must represent the optimal set of opportunities. The line through M gives the greatest return at any level of risk, hence all diversified investors would choose to invest somewhere along this line, known as the **Capital Market Line (CML)**.

(Ref. page 212)

Q5 Outline how a “bill of exchange” operates in the commercial world.

(5 Marks)

Answer can include the following (1 mark each point):

1. A **bill of exchange** is an instrument that is drawn and issued by the seller of goods to the buyer, specifying an amount to be paid either immediately or at some particular date in the future.
2. Once the bill has been accepted by the buyer (by stamping and signing the reverse),

3. i.e. the buyer formally acknowledges the obligation to pay the amount stated, the bearer of the bill is entitled to the proceeds at maturity.
4. The accepted bill may then be discounted, provided the purchaser is willing to take on the credit risk of the bill's acceptor, which is the promise of repayment.
5. During the 18th century, the practice developed of banks adding their own acceptance to a bill, particularly for foreign trade, which effectively provided the holder with a guarantee of repayment.

These guaranteed bills are referred to as 'bank bills' or '**bankers acceptances**'.

(Ref. page 256)

Q6 The UK Government issues a variety of types of “gilts”. Briefly describe FIVE types available to an investor.

(5 Marks)

Answer can include the following (1 mark each point, although these example answers are more detailed than is absolutely necessary to achieve the full mark):

1 Straight gilts an example is straight gilt paying a fixed coupon at 12½% p.a. until maturity. The market value of such straight bonds may vary significantly as interest rates vary, as we will see later. This may however be expected since, as interest rates rise and fall, this coupon rate will become less or more attractive.

2 Variable coupon gilts- The advantage of a floating rate bond is that the coupon rate is always at a fair level regardless of interest rate movements, hence the price remains at or around par. Thus, a floating rate bond protects the nominal value of the investment.

3 Index-linked gilts - Whilst floating rate gilt may protect the nominal value of the investment, it cannot protect against the effects of inflation which, over time, eats into this value in real terms. This protection can, however, be achieved with index-linked bonds. As inflation increases, the return demanded by investors, the yield, will also increase in order to maintain the real rate of return. Because inflation in the UK has been an issue over the past 20 years, the government has issued a number of index-linked gilts which automatically compensate the investor for the impact of inflation. This compensation for inflation is applied **to both** the **coupon** and the **capital repayment**.

4 Convertible gilts are issued with an option to convert at a future date (or dates) into longer dated issues.

The alternative course of action open to the holder is to allow the bond to mature and receive the redemption proceeds. There are currently no outstanding issues of convertible gilts.

5 Foreign currency debt issues Over the past few years, the government has been obliged to issue some foreign currency gilts. The main purpose of these loans has been to finance the foreign currency reserves at the Bank of England. There are outstanding bonds in US dollars (straight) and Euro. These bonds are not like ordinary gilts and trade like Eurobonds with the same conventions for accrued interest.

(Ref. page 270)

Section B

Question 7

Megapix Ltd is struggling to maintain its dominance within the highly competitive Digital Photography market. The planning department has come up with two potential ideas which could secure the company's future. The first idea has Megapix building off-the-shelf processing units for sale to supermarkets for the ever expanding Express Photo Processing market while the other idea would require development of its recyclable digital cameras which has already passed the prototype stage.

Option one will be called the PhotoLab option while option two will be called the GreenCam option. The management consider five years as the optimal period in which to assess the projects and they have been advised of the following expected cash flows from each option:

	PhotoLab	GreenCam
Initial Outlay (CF₀)	£670,000	£940,000
Year (t)	Cash Inflows (CF_t)	
1	£250,000	£170,000
2	200,000	180,000
3	170,000	200,000
4	150,000	250,000
5	120,000	450,000

The company has an 11 percent required rate of return with an acceptable payback period of 3.5 years and both these alternatives are considered to be equally risky.

- What is the Net Present Value (NPV) for each of these two projects and which if any should Megapix choose to invest in? *(7 marks)*
- Calculate the IRR for the Photolab project. *(5 marks)*
- What advice would you give the directors of MegaPix Ltd about using NPV as a long-term investment evaluation method? *(8 marks)*

(Total 20 marks)

Answer

a)

Solution: $NPV = CF_0 + \frac{CF_1}{(1+r)} + \frac{CF_2}{(1+r)^2} + \frac{CF_3}{(1+r)^3} + \dots + \frac{CF_N}{(1+r)^N}$

$$NPV_{PhotoLab} = \text{£}11,930 = -670 + \frac{250}{(1.11)} + \frac{200}{(1.11)^2} + \frac{170}{(1.11)^3} + \frac{150}{(1.11)^4} + \frac{120}{(1.11)^5}$$

$$NPV_{GreenCam} = -\text{£}62,840 = -940 + \frac{170}{(1.11)} + \frac{180}{(1.11)^2} + \frac{200}{(1.11)^3} + \frac{250}{(1.11)^4} + \frac{450}{(1.11)^5}$$

1 mark for correct formula or similar working, 2 marks for each of the NPV's, 1 mark for decision rule and 1 mark for accepting PhotoLab and rejecting GreenCam

b)

Use of IRR formula $IRR = r + \frac{NPV_1}{(NPV_1 - NPV_2)} * (r_2 - r_1)$

$$\text{Yr1 } 250 / (1.21)^1 = 206.61$$

$$\text{Yr2 } 200 / (1.21)^2 = 136.60$$

$$\text{Yr3 } 170 / (1.21)^3 = 121.00$$

$$\text{Yr4 } 150 / (1.21)^4 = 69.98$$

$$\text{Yr5 } 120 / (1.21)^5 = 46.27$$

$$\text{PV} = 580$$

$$\text{Outlay} = (670)$$

$$\text{NPV} = -90$$

$$IRR = 11 + \frac{11930}{(11930 + 90000)} * 10$$

$$= 11 + (.12 * 10)$$

$$= 12.2\%$$

1 mark for correct formula or similar working, 2 marks for the NPV2, 2 marks for the IRR calculation.

c)

Answer will look at the pros/cons etc of NPV and thus the implications for the company in using it. Aspects to include:

Key benefits of using NPV as decision rule:

- Focuses on cash flows, not accounting earnings,
- makes appropriate adjustment for time value of money,
- can properly account for risk differences between projects

it does however have drawbacks:

- Lacks the intuitive appeal of discounted payback,
- doesn't capture managerial flexibility well.
- Is the Discount rate correct?
- Are Projections accurate? Etc.

Question 8

The board of directors for Medix Systems Ltd has just announced a £2.50 dividend for next year with a prediction that the dividend will grow at 5% per annum thereafter.

- a) If the required rate of return expected on this type of company is 14%, what is the share price of Medix Systems Ltd? *(4 marks)*
- b) What would be the share price if the directors could only promise the 5% growth in dividends for three years after the initial £2.50 dividend payment? Thereafter, from year five, the dividends will remain constant at the year four value (with expected return still 14%). *(6 marks)*
- c) If the share price for Medix Systems was £7.00 last year and over the last 12 months earnings were at £3.50 per share, what was the P/E ratio? What might a low P/E ratio indicate? *(4 marks)*
- d) Bonds issued by Medix System Ltd have been quite popular on the secondary market with a current expected yield of 8% for this basic coupon bond paying semi-annual coupons of £3.00 and a maturity in 5 years. What is the current price of Medix Systems Bonds? *(6 marks)*

(Total 20 marks)

Answer

a)

$$P_0 = \frac{D_1}{r - g} = \frac{£2.50}{0.14 - 0.05} = \text{£}27.78$$

b)

Dividends are £2.50 year 1, £2.625 in year 2, £2.756 in year 3 and £2.894 in year 4 and beyond

PV of these are 2.193+2.02+1.86+ 12.24 = £18.31

2 marks for working out dividends, 6 marks for correct share price. Students need to understand normal valuation methodologies.

c)

p/e = 7/3.5 = 2 2 marks for this.

2 marks for a basic level understanding of P/e ratio e.g. based on earnings which are controlled by the company, need to compare with the rivals as P/E is relative and what is high in one sector may be low for another, can comment on dot.com P/Es, cannot work if not earnings.

d)

$$\text{price} = P = \sum_{t=1}^{2n} \frac{C_t / 2}{(1 + r/2)^t} + \frac{MV}{(1 + r/2)^{2n}}$$

$$= 3.00 * 8.1109 + 100 * 0.6756 = \text{£}91.89$$

(Total 20 marks)

Section C

The suggested solutions are not meant to be detailed nor comprehensive, rather they are a guidance for students to allow them to identify the aspects that they could cover in developing their answer. It is essential to show an understanding of the topics and relate them to the actual question.

Question 9

- 9 A relatively unsophisticated investor has approached you for advice on various investments available in the UK. She has recently inherited approximately £3m to invest in the UK. She has no problem with any type of investment on religious or moral grounds and is happy to take risks with her investments as long as they are reasonable.

Her investment horizon is at least five years and possibly longer but she does not want to have to worry about individual investments, such as shares, as she will not be able to study detailed information on a regular basis. She has asked you to respond to the following questions:

- a) What are the major differences between the different types of collective schemes available to people in the UK?** (15 marks)

Answer This will allow students to demonstrate an understanding of the different types of schemes and marks will be available for different points. The total points that can be covered are greater than the marks available but students are expected to be able to summarise the aspects and still be able to show a good understanding (which is what a client would want)

It will cover:

what Unit trusts, OEICS and Investment Trusts are,

how they operate etc. highlighting differences in operation and pricing etc. e.g. pooled investments, pricing for UT is based on Fund Manager calculations whereas Inv Trust is market priced by normal supply / demand rules and can sell at premium/discount.

- b) If she invested in a collective scheme, how could she be sure that it was performing well?** (4 marks)

Answer can include

- would discuss benchmarking e.g. what it is,
- mention of time / money weighted calculation

- selecting a suitable one e.g. similar to the fund strategy - FTSE All Share or a Euro stock index or...
- how to evaluate generally- statistical performance v benchmark, Sharpe Ratio etc

c) What are these venture capital trusts that she has heard about? Are they a suitable investment for her? (6 marks)

Answer

Will explain in varying amounts of detail what they are and how they work e.g. covering

- Listed Company
- Spread of risk over unquoted companies
- Tax advantages- reduction of 30% to max 200,000 and dividends can be tax free
- CGT factors
- Not a closed company (explaining this more)
- Income from shares/securities
- Holdings
- Performance and risk considerations to say if suitable in students view (argument either way is possible)

d) Although there have been some recent problems in UK property investments, is property investment still a good idea? Discuss the pros and cons of property investment for someone like her. (10 marks)

Answer marks will depend upon how the students answer and need not cover every single point covered in the workbook to gain the full marks. Demonstration of understanding of the various considerations will be more important

Could include a discussion of the following aspects in varying degrees of detail (*as per Chapter 17 of the BPP study book*)

- Types of property investment – commercial and residential explaining what each is and what can constitute each category and types of yield they can generate, e.g. factories high, retail low
- Type of ownership- freehold and leasehold

- Problems generally e.g. the supply and demand issues covered in the study guide and reference to her time horizon, influences on value of investment e.g. geography, repair etc
- Risk factors as covered in the workbook
- Indirect investment e.g. REITs

NB There is no need to cover valuation aspects

e) If she did have religious or moral problems with investing in shares, or interest-paying investments, what alternative could she consider and how would it operate?
(5 marks)

Answer will discuss the solution as perceived by the student and a number of answers may be possible

Any thing which meets the criteria would be acceptable if explained fully e.g. a Zero coupon bond sold at a discount and redeemed at par but with no interest payment during the period may meet the criteria. Student needs to explain what a Zero is, how it is priced, the fact that it can be traded, risks need to be factored in if company fails etc. Candidates can also mention industry of issuer as being a factor if customer has issues on certain grounds.