

# **EXAMINERS' REPORT**

*November 2023 examinations*

## **Subject F105 — Finance and Investment Fellowship Principles**

### **INTRODUCTION**

The attached report has been prepared by the subject's Principal Examiner. General comments are provided on the performance of candidates on each question. The solutions provided are an indication of the points sought by the examiners, and should not be taken as model solutions.

## QUESTION 1

i. Financial futures contract:

- Agreement between two parties to trade (i.e. buy or sell) a specified asset on a set date in the future at a specified price.
- Standardised contract, traded on an exchange.
- The clearing house acts as counterparty to all trades and guarantees all transactions.
- The exposure to credit risk is controlled by the marking to market process (i.e. initial and variation margin).
- The process of settlement in the futures market is known as delivery, at dates specified in advance.
- Settlement can be done via actual delivery of the underlying instrument or cash settlement – contracts will specify which applies.
- Most contracts are closed out prior to expiry.
- Highly marketable and liquid derivative instruments.

ii. Future strategy:

- Buy R50m worth of exposure to bond futures and
- Sell R50m worth of exposure to equity index futures.

iii. Limitations:

- Basis risk arising from the price of the future contract not following the price of the underlying asset exactly because supply and demand conditions in the two markets differ; and future income cannot be predicted with certainty.
- Cross hedging – dependent on the choice of index to match the portfolio to be hedged. It is unlikely that the hedge will be absolutely perfect and hence there will be differences between the movements of the portfolio and index.
- Systems required to monitor and report on the derivative positions.
- Margin requirements, that could lead to liquidity constraints.
- Portfolio inflows and outflows may require further futures transactions.

***Examiner comments:***

*Part (i) was a pure bookwork question and while many candidates scored well, many did not state the definition of a futures contract. Those candidates who were able to produce a broad spread of relevant points scored better than those that limited their answers to the basic definition. Since the size of the futures contracts required could be determined from the information provided, this should have been stated in (ii).*

*In part (iii), that the fund manager's predictions turn out to be wrong is a risk related to the strategy itself faced in both the spot and cash markets, and not inherent in the means of execution. Some students confused basis and with cross-hedging risk with each other.*

## QUESTION 2

i

a. Solar farm specific risks

- Design – risk of design flaws e.g. safety and environmental requirements.
- Construction – risk of property damage or liability stemming from errors or delays during the construction:
  - Delays and disruptions caused by suppliers or faulty / inadequate components.
  - Natural events causing damage and delays.
  - Strike action by workers causing delays.
  - Poorly performing sub-contractors requiring re-work at additional costs and causing delays.
  - Loss of key personnel and difficult to replace due to expertise not being available.
  - The plant is exposed to currency risk with respect to any labour or equipment sourced internationally.
- Operation of the solar farm:
  - Insufficient specialist skills for correct operation and maintenance.
  - Risk of unscheduled plant closure / sub-optimal operation due to the lack of solar resources.
  - Equipment damages or component failures caused by natural events or deliberate sabotage.
  - Risk of theft of important equipment.
  - Maintenance costs being higher than expected.
  - The plant is dependent on a stable and operational national grid.
- The specific instrument invested in:
  - Funding during the planning and construction phase might involve mostly equity, and this would carry a high risk.
  - Funding during the operational phase might be longer bonds with a higher level of security.
  - These instruments are illiquid.
  - Due to investment size and lack of alternative projects, the investment might bring concentration risk to most institutional investors.
  - It is difficult to assess fair pricing of these instruments, as projecting cashflows accurately is difficult with little information available.
- A change of government might change particulars of a purchase agreement or tax incentives.

b. Infrastructure asset class risks

- Market / economic risk –
  - demand for solar energy lower than expected, due to economic weakness, or oversupply of generation capacity places downward pressure on electricity prices
  - unwillingness to pay for solar energy.
  - Interest rate risk impacting valuation of the project.

- Regulatory risk and political risk – price controls by energy regulator and lack of clarity of government policy, tax incentives.

i.  $LA[F_0\Phi(d_1) - R_X\Phi(d_2)]$

$$L = 10 \text{ million}$$

$$A = e^{-2 \times 0.06} + e^{-3 \times 0.065} = 1.70976$$

$$d_1 = \frac{\ln(0.07/0.06) + 0.25^2/2}{0.25\sqrt{1}} = 0.741603$$

$$d_2 = \frac{\ln(0.07/0.06) - 0.25^2/2}{0.25\sqrt{1}} = 0.491603$$

$$\Phi(d_1) = 0.779151$$

$$\Phi(d_2) = 0.697564$$

$$10 \times 1.70976 \times [0.07 \times 0.779151 - 0.06 \times 0.697564] = R0.217m$$

**Examiner comments:**

Candidates scored well in part (i). In part (ii), the most common error was not identifying the term of the option as 1 year.

### QUESTION 3

i.

a. Hedge funds

- Less restrictions on borrowing, short-selling and the use of derivatives.
- Better able to exploit market opportunities due to a greater opportunity set.
- Higher risk tolerance and managers incentivised through performance fees may result in higher returns.

Risks:

- Due to greater investment freedom, including the use of derivatives, the variation in returns is higher, and significantly negatively skewed.
- Traditional metrics for measuring risks do not apply, i.e. risk is hard to measure, and the whole return distribution should be considered.
- There may be significant lock-up periods; the investment may be illiquid.
- The legal structure may be complex, with some funds registered in tax havens.
- The investment might have minimum and maximum investment size limits.

b. Commodities

- Real assets whose value is determined by short-term economic factors rather than expectations over the longer term.
- Diversification from the traditional institutional real assets of property and equity shares.
- Specifically in those environments that have produced the worst from financial assets (rising inflation, excessive global demand, supply disruptions) commodities have produced higher returns than any other asset class used by institutional investors.
- Investment might be by directly holding the commodities, which might cause storage costs, but more usually by investing in futures.

Risks:

- The markets are volatile, being driven by a number of factors unrelated to the underlying economic factors that affect institutional liabilities.
- Trading commodities requires high levels of specialist expertise, without which losses are possible/likely.
- Many commodities are traded in US\$, thereby adding currency exposure to the US\$.

*(Note: No credit awarded for risks not specific to the specialist asset class e.g. market risk, credit risk etc.)*

- ii. The fund manager should consider:
- The fund needs a mandate which will incorporate the specialist asset classes, possibly an expansion of the Traditional Fund's mandate. Compliance with all tax and legal requirements.
  - The fund risk appetite and benchmark:
    - The fund needs to establish its risk appetite that would cater for a broad range of pension fund clients.
    - As a performance benchmark, the Traditional Fund can be used as starting point.
    - Depending on available models, a new risk-return analysis can be performed to find a possible efficient portfolio.
    - Using the same, or an elevated total risk, an optimal portfolio can be chosen.
  - Regulation underlying pension funds:
    - In particular asset spreading requirements per asset class and per individual holding.
    - Auditing and reporting requirements for specialist asset classes, in particular derivatives.
  - Required fund liquidity and liquidity management:
    - Some assets may have holding periods, meaning not all assets can be liquidated quickly.
    - This may lead to temporary and unintended/forced deviations in asset mix, increasing tracking error.
  - Some investments have minimum investment sizes, investing in an alternative fund of funds is an option, although this brings another layer of cost.
  - Whether the fund has sufficient expertise in the asset classes for research and investment in house, or whether specialist managers should be used. Comparative industry analysis.
  - Increased need for fund and back-office administration, resulting in higher fees.
  - Need for systems and expertise to value the alternative instruments.
  - Communication with existing clients and future marketing of the fund, including cost structures.
  - A low level of interest in the fund may cause losses for the fund manager:
    - The cost of the launch and marketing needs to be controlled.
    - Seed capital might be required for the new funds.

***Examiner comments:***

*In part (i), most candidates knew their bookwork well enough to score well. In part (ii), most candidates managed to present decent answers. Those that did not do well tended to focus on why the manager should not open the new fund.*

## QUESTION 4

i. Industry classification – acquiring company:

As part of the financial services industry, the life insurance company would be classified under Financials:

- Financial companies tend to be capital intensive.
- Life insurance companies generally have stable profits and low gearing (as profits are gradually realized over the long term).
- Staff costs tend to form a large proportion of total costs.
- The domestic market is the most important, but there may be internationalisation.

Effect on industry classification following takeover:

- Following the takeover, the classification will not change, as the non-life insurance business is also considered as part of the financial services industry.
- Even though the non-life insurance company would have volatile profits and no borrowings, its absorption into the combined entity is unlikely to have any meaningful impact due to its small size.

ii. The acquisition can be financed through the following:

- Cash (e.g. surplus funds).
- Share exchange.
- Borrowing (e.g. debt or loans).
- Raise equity (e.g. rights issue or placings).
- A combination of the above.

iii.

Issue:

- Poor corporate governance implies there is a misaligned of management and shareholder interests at the target company.
- Management may have been loyal to the corporation rather than to the shareholders, and placed their interests above those of shareholders. I.e. principal-agent problems arose.
- Governance mechanisms available to shareholders were not used, the boards of directors were ‘captured’ by management and internal incentives from management ownership were very modest.
- All of this have resulted in value not maximised for shareholders.

Addressing it:

- The acquiring company will be able to impose its own standards of governance on the target company, thereby:
  - Increasing operational effectiveness of the target company.
  - Improve internal controls of the non-life insurance company.
- The acquiring company may be more effective at achieving alignment than prior owners, through e.g.
  - Appointing non-executive directors.
  - Putting appropriate incentives e.g. share options for managers in place.

***Examiner comments:***

*Most candidates were able to describe the characteristics of the financials industry, but very few explained how the takeover would impact the characteristics of the company post takeover.*

*It is unlikely that a life insurer will have lots of assets that it can sell to fund something like this takeover. Investment banks also don't normally offer, but only facilitate obtaining a loan.*



## QUESTION 5

i. A central bank may be interested in:

- monetary, interest rate and inflation policy
- implementation of government borrowing
- performance and integrity of financial markets
- intervention in currency markets
- printing and minting of notes and coins, and
- taxation.

ii. Specify the problem:

- Demand for credit will originate both from household investors and corporate investors, and lines of credit can most easily be accessed through retail banks.
- During a recession, economic activity is dampened to the extent that there is an increase in liquidations of companies and unemployment: households have less disposable income, and small companies will generate less revenue and profits.
- This will impede the ability of borrowers to finance the credit extended by the retail banks, leading to credit defaults.
- Therefore, the 2.5% capital requirement may not be sufficient to ensure sustained solvency during this time.

Develop the solution:

- Central bank may require the retail bank to hold an additional capital buffer to absorb the resulting volatility, or they may impose a capital add-on commensurate with the increased risk profile.
- They may also direct the retail bank to tighten their requirements for extending credit to new borrowers (i.e. credit assessment and rating), and consider implementing measures of leniency such as mortgage repayment holidays.
- The central bank may lower interest rates. This might help companies and individuals that would otherwise have been unable to pay interest on their loans, to do so.
- They may require additional stress or scenario testing to be done to guide their interventions to ensure solvency.

Monitor the solution:

- Regular reporting (daily, monthly) of key statistics (e.g. defaults) to monitor the solvency and credit risk exposures of the retail bank for the duration of the recession until the economy picks up and the measures can be relaxed.

### ***Examiner comments:***

*Part (i) was pure bookwork and well answered.*

*In part (ii), a particular scenario was presented which many candidates did not give sufficient attention to. Answers were therefore too broad and lacked specific details. E.g. the actuarial control cycle starts with identifying the problem. There are specific risks to banks associated with a recession. Few unpacked this.*

## QUESTION 6

- i. The Standard & Poor's Composite Index, sometimes known as the S&P 500:
  - Is a weighted arithmetic index.
  - Its constituents are 500 leading companies (by market capitalization) in the USA.
  - Representing a broad cross-section of all sectors of the market.
  - It is often suitable to use for performance measurement of a fund's portfolio of USA equities.
  - It is also used as the basis for stock index futures/derivatives.
- ii.
  - a.
    - A float-adjustment refers to an adjustment made (e.g. market capitalisation weighting change) to individual components or securities within the index.
    - To account for the changes in the number of shares available for trading (or the free float)
    - It therefore excludes shares that are held for strategic purposes and are unlikely to be sold.
    - e.g. by holding companies in subsidiaries.
    - This ensures that the value of the index can realistically reflect the available supply of these shares in the market/sector.
  - b. Rebalancing
    - The index will establish inclusion criteria that will determine the shares included in the index to maintain the level of diversification and risk profile.
    - As the markets are dynamic and affects the market capitalisation of shares,
    - these inclusion criteria will detect breaches and changes at frequent intervals, usually quarterly,
    - and shares which no longer meet the inclusion criteria will be excluded and shares that do meet the criteria will be included to replace these.

Triggers of inclusion criteria could also be as a result of:

- Delisting.
  - Mergers or acquisitions.
  - Corporate actions such as a rights issue or a share buy-back.
  - Falling below a market capitalisation size measure, or vice versa.
- iii.
    - Sustainability criteria breach appear to be reason for exclusion, and as company X was only included in the index for 12 months, its removal is unlikely to have any material effect for investors, depending on the extent to which this company was brought into the investor's portfolio and the performance of the share during the year.
    - The manager may need to rebalance their portfolio and sell the X shares, depending on the managers mandate and views on sustainability, incurring costs.
      - However, the sustainability criteria in the manager's mandate, if they have their own independent criteria, may differ from the index criteria. (ESG sustainability criteria might also be ambiguous in terms of its application).

- Therefore, the manager needs to decide whether the company no longer meets the sustainability criteria set in their mandate (e.g. are low-carbon strategies and codes of business conduct” factors considered?)
- The manager may have a wider remit to include shares of more companies which may result in approximate matching to limit the number of companies held.
- This exclusion will alter the expected future return and risk profile of the fund if the investor follows the index closely, especially since it was the third largest company in the index – if the resulting index is less concentrated, it should lead a better return-risk profile.
- Expected future performance of X will also influence whether to retain it.
- If the shares are retained, tracking error will increase.
- Therefore, consider the active risk budget and the extent to which they are allowed to deviate from the benchmark.
- X’s share price may have dropped from the selloff from passive portfolios and active funds with sustainability goals.
- ... and this could negatively affect the returns earned by the fund, depending on how quickly it was rebalanced (if at all) after the exclusion.

***Examiner comments:***

*This question was generally not well answered. Most candidates scored some marks for part (i). In part (ii) only stronger candidates had enough distinct points. In b) some weaker candidates discussed rebalancing of investor portfolios rather than the index.*

*Part (iii) was answered poorly by many candidates, who provided too few points for the marks on offer. Often candidates provided information on the benchmark only rather detailing the impact on the investor. Other common errors included generic suggestions such as a complete change of benchmark and suggesting that a removal of a company from the benchmark would result in the index value falling by the loss of the full market capitalisation of the removed company. Important to note that the differing inclusion criteria of the S&P500 ESG index results in it containing just over 300 constituents, and not 500.*

## QUESTION 7

i. Performance =  $(1 + y_1) * (1 + y_2) * (1 + y_3) - 1$

$$A = (1 + 0.119) * (1 + 0.069) * (1 + 0.09) - 1 = 0.304 = 30.4\%$$

$$B = (1 + 0.085) * (1 + 0.04) * (1 + 0.115) - 1 = 0.258 = 25.8\%$$

$$\text{Outperformance (A)} = 30.4\% - 26.5\% = 3.9\%$$

$$\text{Underperformance (B)} = 25.8\% - 26.5\% = -0.7\%$$

ii. Risk-adjusted performance measures based on beta:

a. Treynor measure (proportional outperformance)

$$T = (R_p - r) / \beta_p$$

- $R_p$  is the return on the portfolio
- $r$  is the risk-free rate of return over the period
- $\beta_p$  is the systematic risk of the portfolio

b. Jensen measure (absolute outperformance)

$$J = R_p - R_b$$

- $R_p$  is the return on the portfolio
- $R_b$  is the return on the benchmark

$$R_b = r + \beta_p (R_m - r)$$

- $R_m$  is the return on the market portfolio

Calculate  $\beta$  where  $\beta_i = \text{Covariance}(R_i, R_m) / \text{Variance}(R_m)$

$$\beta_A = 0.0048 / (0.065)^2 = 1.14$$

$$\beta_B = 0.0036 / (0.065)^2 = 0.85$$

Treynor measures:

$$T_A = (9.0\% - 3.75\%) / 1.14 = 0.046$$

$$T_B = (11.5\% - 3.75\%) / 0.85 = 0.091$$

Jensen measures:

$$J_A = 9.0\% - (3.75\% + 1.14 (8.0\% - 3.75\%)) = 0.41\%$$

$$J_B = 11.5\% - (3.75\% + 0.85 (8.0\% - 3.75\%)) = 4.14\%$$

iii. Comments:

- Over the last 3 years, A outperformed the market and B underperformed the market.
- Based on the both the Treynor and Jensen measures, B outperformed A on a risk-adjusted basis, meaning that considering the risk appetite of the two managers, B took less risk and achieved a better return compared to A.
- Results not conclusive in recommending a particular manager given the short period of time over which performance was analysed.
- An evaluation over several time periods e.g. 1, 5 or 10 years or longer may be performed.
- How the manager would perform/fit in when the investor looks across their portfolio.
- Additional information and measures will likely be needed to select a manager.
- Examples of additional measures, e.g. allowing for downside risk, i.e. the risk of failing to achieve a specified or target rate of return may be used.
- Or measures showing the standard deviation of the performance of the manager.
- The level of fees charged by the manager will impact the net return earned.
- The willingness and capability of the manager to comply with reporting and administrative requirements of the investor.
- The accessibility of the portfolio, through an appropriate investment vehicle or tax wrapper.
- The willingness of the manager to accept any restrictions and constraints in the mandate.
- Any material changes to the fund manager – e.g. talent of the fund manager and if any key people have been brought on board or have left recently.

iv. Circumstances:

- The choice of which risk measure (dependent on  $\beta$  or  $\sigma$ ) to use depends on whether the portfolio represents the entire wealth of investor ( $\sigma$ ), or only a subset of it ( $\beta$ ).
- The beta of a portfolio is a measure of its risk relative to a well-diversified portfolio and adjusting the return using beta tells us how good the manager is at picking out-performing securities,
- given the level of systematic risk assumed.
- Using standard deviation to adjust the return allows us to measure how well-diversified the whole portfolio is as well as how good the manager is at individual stocks that produce an excess return relative to their betas.
- The standard deviation therefore allows for total risk.

***Examiner comments:***

*This question was generally well answered. Most candidates obtained good marks for part (i) Many did well in part (ii), but some candidates made silly arithmetic errors, or used the return over three years instead of that in year 3, or did not correctly calculate beta (e.g. using the covariance instead in the formulas). Only stronger candidates outlined sufficient considerations in selecting a manager given the context provided in part (iii).*

*In part (iv) too many candidates incorrectly highlighted that standard deviation ( $\sigma$ ) should only be used when the portfolio represents only a small subset of the wealth of the investor.*

## QUESTION 8

### i. Operational risk:

- The risk of loss due to fraud or mismanagement within the fund management organisation itself, including the risk of loss from external events.

#### Sources and examples:

- IT systems problems that could impact client service or fund management operations, e.g. systems downtime for a prolonged period of time.
- Fraud and theft by employees or by external parties, e.g. siphoning of funds to third party bank accounts.
- Human error e.g. by fund management staff in executing trades or not submitting regulatory returns as required.
- Confidentiality and security breaches e.g. as a result of a cyber-attack.
- Third party failure to deliver e.g. data or IT hardware/software.
- Natural disasters impacting operations, e.g. flooding.
- Key-man risk e.g. overdependence on a fund manager leaves the firm at risk of the sudden loss or departure of the individual and subsequent loss of clients.

### ii. “Growth” equity investment style:

- Investors look to invest in companies that the investor expects to grow faster than the average when compared to the market or the industry in which the company operates.
- Growth stocks may be trading on higher-than-average P/E multiples when compared to other stocks, however investors believe that these stocks will grow more rapidly or will be subject to positive earnings revisions in the near term.

#### “Value” equity investment style:

- Investors buy securities believed to be under-priced by some form of fundamental analysis.
- While a low price relative to book value has been widely used to identify a ‘value’ stock, the definition used today is less prescriptive.
- Value investors often believe that the market over-reacts to good and bad news, resulting in stock price movements that do not correspond with a company’s fundamentals.

iii.

- Tracking Error (TE) is the annualised SD of the relative return.
- Information Ratio (IR) is calculated as the mean (relative return)/SD (relative return).

Fund	TE	IR
Passive equity fund	0.2% p.a.	$-0.002/0.2 = -0.01$
Active 'growth' fund	1.5% p.a.	$0.5/1.5 = 0.33$
Active 'value' fund	0.8% p.a.	$0.4/0.8 = 0.50$

Comments:

- The passive fund shows the lowest tracking error, which would be expected, as it is expected to track the index as closely as possible without any undue deviations.
- The quantum of the tracking error for the passive fund suggests that index tracking method is effective.
- The passive fund shows a negative information ratio because of the underperformance. However, the IR is close to zero as one would expect since you do not expect any out- or under-performance from a tracker fund, apart from the effect of some frictional costs e.g. rebalancing.
- The outperformance by the active funds of their respective benchmarks is positive, suggesting that within the respective management styles, the managers outperform.
- The information ratios suggest that the active funds experienced sufficient excess return per unit of variability to perform better than the passive fund.
- This suggests that the higher returns may have been achieved by stock picking skill rather than by taking on more risk.
- Analysis of experience over longer, and different periods is needed to obtain better insight into the performance of the funds.
- Alternative risk-adjusted measures may add additional insight into performance. In particular, measures that focus on down-side risk (rather than variance) might be more useful.

iv. Risk budgeting:

- A risk budgeting exercise is concerned with establishing how much risk should be taken and where it is most efficient to take that risk.
- TE and information ratios are measures of the risk assumed by the portfolio relative to a benchmark.
- ...They are therefore measures of active risk.
- The investor can therefore determine whether a return commensurate with the risk assumed under the growth strategy was obtained.
- They can compare this with the return achieved on the strategic risk budget and other active strategies that had been selected.
- The results will inform whether risk could be allocated more efficiently between parts.

- Past performance must be used with caution though because is not indicative of future performance.

***Examiner comments:***

*Overall this was well answered by most candidates.*

*Part (i) was generally well answered, however in a number of instances candidates provided a source of risk (e.g. “poor internal controls”), but then neglected to give an example or to explain the potential losses that this might lead to. Poor investment decisions are not regarded as operational risk – operational risk relates to potential events that can disrupt the normal daily operations of a firm.*

*Parts (ii)-(iv) were generally well answered by most students who knew their bookwork.*



## QUESTION 9

### i. Potential taxes:

- Stamp duty - tax on the purchase of an asset.
- Income tax - tax on income generated by an asset.
- Capital gains tax - tax on capital gains made on disposal of an asset.
- Total return tax – tax on the combined return from income and capital gains on an asset.
- Withholding tax – tax levied on local investments held by foreign or local investors (which may differ from income and capital gains tax).

### ii. Considerations:

- Deciding on the % level of wealth tax and the threshold:
  - If the % level of tax is too high relative to other jurisdictions, HNWI individuals will be incentivised to emigrate, or hide their wealth in other countries or in unproductive assets or in alternative and complex legal structures, permanently depriving the country of valuable resources and future taxes.
  - If the threshold is set at a low level, it may target non-HNWI individuals and be unduly punitive on them.
- Secondary unintended consequences:
  - HNWI individuals emigrating could lead to businesses being shut, increasing unemployment for locals and potentially higher unemployment/social security payments by government.
  - Highly trained professionals emigrating may result in critical skill shortages (e.g. of medical specialists, engineers), impacting economic growth and quality of services.
  - Illiquid assets and retirement savings may not be easily accessible for funding the tax, leading to potential inability to perform for HNWI individuals with limited liquid assets.
  - A wealth tax can have the effect of discouraging saving in the country, leading to shortages of local capital in the long term.
- Availability, quality and consistency of information:
  - If tax authorities have not been collecting the necessary information, there could be significant delay in doing so and in implementing this tax.
  - The basis to determine wealth might be difficult in cases where assets do not have readily available market values e.g. for illiquid and untraded assets. For some assets it may take some time to assess a value, causing information to be out of date by the time it's received. Valuation of some assets may be highly subjective and will probably lead to deliberate understatements.
  - If the tax is based on individual's worldwide assets, verifying information could be difficult as some countries may not be willing to share the required information. Information on assets in foreign countries may be difficult to understand and interpret due to language and accounting differences.

- The value of an asset can be measured in various ways, and implementation may be delayed by clarifications needed. If the definition of value is not sufficiently precise it will lead to inconsistent interpretations over time and across asset types.
- Other:
  - Significant enough effort and cost may be required to implement this tax to not make it worthwhile taking, into account all the negative consequences of the tax.
  - Dealing with legal challenges from HNW subject to the wealth tax.
  - Government budget planning considering the large tax windfall.

***Examiner comments:***

*Overall this was well answered by most candidates.*

*For part (ii) several candidates ignored the information given in the question about the “once-off” nature of the tax and gave points about the how often the tax would be levied, how the threshold would need to be inflation-linked over time etc.*