Institute
and Faculty
of Actuaries

SP5 – Investment and Finance Specialist Principles

Syllabus

for the 2021 exams

June 2020

SP5 – Investment and Finance Specialist Principles

Aim

The aim of the Investment and Finance Principles subject is to instil in successful candidates the key principles of evaluating investments, including the appropriate selection and effective risk management of a portfolio of investments that meet the needs of a particular investor.

Competences

On successful completion of this subject, a student will be able to:

1. understand the main principles and techniques of actuarial management and control that are relevant to the management of investments.
2. apply these principles to given situations within the context of investment management.
3. analyse hypothetical scenarios, including using judgement to assess the implications of possible actions and to develop appropriate proposals or recommendations relating to the management of investments.

Links to other subjects

CB1 – Business Finance

CB2 – Business Economics

CM2 – Financial Engineering and Loss Reserving

CP1 – Actuarial Practice

SA7 – Investment and Finance Advanced

Syllabus topics

1. The economic, regulatory and legislative framework for investment management (10%)
2. Specialist investment products (15%)
3. Valuing investments (10%)
4. Monitoring and managing investment risks (10%)
5. Investor characteristics, including behavioural finance and taxation (10%)
6. Appropriate investment strategies (15%)
7. Portfolio management and risk control (15%)
8. Analysing portfolio performance (15%)

These weightings are indicative of the approximate balance of the assessment of this subject between the main syllabus topics, averaged over a number of examination sessions.

The weightings also have a correspondence with the amount of learning material underlying each syllabus topic. However, this will also reflect aspects such as:

- the relative complexity of each topic and hence the amount of explanation and support required for it.
- the need to provide thorough foundation understanding on which to build the other objectives.
- the extent of prior knowledge that is expected.
- the degree to which each topic area is more knowledge- or application-based.

Skill levels

The use of a specific command verb within a syllabus objective does not indicate that this is the only form of question that can be asked on the topic covered by that objective. The Examiners may ask a question on any syllabus topic using any of the agreed command verbs, as are defined in the document 'Command verbs used in the Associate and Fellowship written examinations'.

Questions may be set at any skill level: Knowledge (demonstration of a detailed knowledge and understanding of the topic), Application (demonstration of an ability to apply the principles underlying the topic within a given context) and Higher Order (demonstration of an ability to perform deeper analysis and assessment of situations, including forming judgements, taking into account different points of view, comparing and contrasting situations, suggesting possible solutions and actions and making recommendations).

In the SP subjects, the approximate split of assessment across these three skill types is 25% Knowledge, 50% Application and 25% Higher Order skills.

Detailed syllabus objectives

1 The economic, regulatory and legislative framework for investment management (10%)

1.1 Explain the influences over the commercial and economic environment from:

- central banks.
- main investor classes.
- government policy.

1.2 Discuss the principles underlying the legislative and regulatory framework for investment management and the securities industry and how these principles can be applied in the areas of:

- trust law.
- corporate governance.
- role of the listings authority.
- environmental, social and governance factors.
- ethical issues.
- competition and fair trading controls.
- monopolies regulators.
- investment restrictions in investment agreements.
- provision of financial services.
- institutional investment practices.
- EU legislation.
- role and responsibilities of directors.
- development of international accounting standards.

2 Specialist investment products (15%)

2.1 Discuss the characteristics of the following specialist financial instruments:

- Financial instruments available for short-term lending and borrowing
- Corporate debt and credit derivatives
- Swaps and swaptions
- Private debt
- Asset-backed securities, securitisation
- Venture capital
- Hedge funds
- Currency
- Infrastructure

- Commodities
- Insurance-linked securities
- Structured products
- New ways of investing in old asset classes.

2.2 Describe the main types of derivative contract, including:
- how they are traded.
- their payoffs.
- how they can be used by an investment manager.

3 Valuing investments (10%)

3.1 Describe the principles of fundamental analysis of equities and bonds, including:
- factors affecting equity prices.
- credit analysis of bonds.
- role of credit rating agencies.

3.2 Determine the value of individual investments.

3.3 Discuss the appropriateness to valuing investments in different situations of:
- fixed income analytics and valuation (including interest rate swaps and futures).
- arbitrage pricing and the concept of hedging.
- empirical characteristics of asset prices.
- fixed income option pricing.
- evaluating a securitisation.
- evaluating a credit derivative.

4 Monitoring and managing investment risks (10%)

4.1 Describe methods by which an institution can monitor and control its exposure to the following types of risk:
- Asset/liability mismatching risk
- Market risk
- Credit risk (including counterparty risk)
- Operational risk
- Liquidity risk
- Relative performance risk.

4.2 Explain in the context of mean-variance portfolio theory what is meant by:
- opportunity set.
- efficient frontier.
- indifference curves.
- the optimum portfolio.

5 Investor characteristics, including behavioural finance and taxation (10%)

5.1 Discuss the application of the key findings in behavioural finance.

5.2 Outline the main steps involved in financial planning.

5.3 Describe the typical ways in which investment returns are taxed and the effect of the taxation basis on investor behaviour.

6 Appropriate investment strategies (15%)

6.1 Propose how actuarial techniques may be used to develop an appropriate investment strategy, including:
- asset pricing models.
- asset/liability modelling.

- asset/liability mismatch reserving.
- liability hedging.
- dynamic liability benchmarks.

7 Portfolio management and risk control (15%)

7.1 Discuss the principal:

- active management 'styles' (value, growth, momentum, rotational).
- equity portfolio management techniques.
- bond portfolio management techniques.

7.2 Discuss the uses that an institutional investor may make of:

- financial futures and options, including over-the-counter contracts.
- interest rate and currency and inflation swaps.
- forward foreign exchange contracts for currency hedging.

7.3 Discuss the usefulness of multifactor models in practical investment management and risk control.

7.4 Discuss the problems of making significant changes to the investment allocation of a substantial portfolio.

7.5 Discuss transition management and asset allocation techniques (including overlay strategies).

7.6 Describe the role of the custodian.

7.7 Assess portfolio construction with attention to:

- value at risk.
- tracking error.
- risk budgets.

7.8 Discuss measurement, comparison and attribution of risk.

8 Analysing portfolio performance (15%)

8.1 Assess the performance of an investment and discuss the limitations of such measurement techniques, including:

- portfolio risk and return analysis.
- equity price.
- net present value.
- net asset value.
- return on capital.

8.2 Discuss the construction and uses of investment indices.

8.2.1 Describe the principal indices in the international stock markets.

8.2.2 Explain the problems encountered in constructing property indices.

8.2.3 Discuss the uses of investment indices.

8.3 Assess the performance of an investment portfolio and discuss the limitations of such portfolio measurement.

8.3.1 Assess the performance of a portfolio relative to a:

- published market index.
- predetermined benchmark portfolio.

8.3.2 Assess the performance of a portfolio into components relating to investment sector selection and individual stock selection.

8.3.3 Discuss the relative merits of assessing portfolio performance relative to published indices, other portfolios or a predetermined benchmark portfolio.

8.3.4 Discuss the uses of risk-adjusted performance measures.

8.3.5 Discuss the value of portfolio performance measurement and its limitations.

9 Solving problems

9.1 Analyse hypothetical examples and scenarios in relation to the management of investments.

- 9.1.1 Propose solutions and actions that are appropriate to the given context, with justification where required.
- 9.1.2 Suggest possible reasons why certain actions have been chosen.
- 9.1.3 Assess the implications of actions within a given scenario.
- 9.1.4 Discuss the advantages and disadvantages of suggested actions, taking into account different perspectives.

Assessment

Three-hour and fifteen-minute written examination.

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