Analysing Advanced Financial Statements

Detailed course outline

Table of Contents

Introduction to advanced financial analysis

Sources of financial data: Including users and uses

- Discuss sources of financial data
  - Financial statements (primary annual financial report)
  - Integrated report (ing)
  - Sustainability report (ing)
- Discuss purpose of financial statements
- Identify the users and uses of financial statements
- Discuss how financial analysts use financial statements

Annual financial statements (annual financial report)

Accounting standards

- Explain regional versus global standards
- Discuss International Financial Reporting Standards (IFRS), answering questions such as:
  - When to use IFRS?
  - How IFRSs are developed?
  - Why IFRS changes?

Content of annual financial statements: Financial information

- Discuss what constitutes the primary financial statements
  - Statement of Financial Position (previously Balance sheet)
  - Statement of Comprehensive Income (previously Income statement)
  - Statement of Cash Flows (previously Cash flow statement)
  - Statement of Changes in Equity
- Discuss the notes to the financial statements
  - Significant accounting policies
  - Critical estimates and judgements
  - Details and supporting information of the amounts presented in the primary financial statements
- Explain the concept of materiality

- Other comprehensive income components

Non-financial elements of annual financial statements

- Identify non-financial sources of information that a company provide that are useful to the financial analyst

Management commentary

- Discuss the types of management commentary in the AFS:
    - The directors report
    - The operating and financial review
    - Management's discussion and analysis (MD&A)

Other parts of annual financial statements

- Discuss other reports and analyses contained in corporate reports:
    - Statement of responsibility by the board of directors
    - Company secretary's certification
    - Report of the audit committee
    - Directors' report
    - Independent auditor's report
    - Administration and corporate Information
    - Analysis of shareholders

Information on the economy, industry, and peer companies

- Discuss other types of corroborating and comparative information

Cognitive and emotional investment bias

Behavioural biases of investors and financial analysts

The impact of biases on judgement vis-a-vis investment decisions

(Cognitive and emotional bias)

Behavioural investment bias: An overview

- Explain the broad types of investment bias (also known as investment bias):
  - Cognitive bias
  - Emotional bias
- Discuss the differences between cognitive and emotional biases
- Explore the impact of investment bias on the behavioural patterns of financial analysts
- Discuss how investment biases prejudice investment decisions and analysis
- Identify detrimental biases held by financial analysts
- Discuss how to minimise unprofitable biases
- Discuss how to create rules and procedures to mitigate negative biases
- Compare how behavioural bias of an individual decision-maker, differs from an approval process by a committee

Cognitive bias: Errors in our thinking processes

- Explain why, and how, analysts 'suffer' from cognitive investment bias
- A discussion of the main types of cognitive bias and their effects:
  - Confirmation bias
  - Anchoring bias / Hindsight bias
  - Risk-averse bias
  - Incentive-caused bias
  - Bandwagon effect (or groupthink)
  - Status-quo effect
  - Conjunction fallacy

Emotional bias: Feelings versus facts

- Explain what may cause emotional bias for analysts and investors
- A discussion of the main types of emotional bias and their effects:
  - Loss-aversion
  - Overconfidence
  - Restraint bias
  - Endowment effect

General market behavioural biases: Irrational market participants

- Explain traditional economic theory (with rational actors) versus behavioural economics ('more realistic analysis of how people think and behave when making economic decisions')
- Identify and interpret behavioural biases of potentially irrational investors in the market in general

Understanding the components of the primary financial statements

An inside look at financial statements

Income statement
(Statement of financial performance)

- Discuss the three most important components of the income statement
- Explain recognition principles in terms of the IFRS framework: revenue, expenses, gains, losses, profit and comprehensive income

Balance sheet
(Statement of financial position)

- Discuss the five important components of a balance sheet
- Explain recognition, measurement and classification principles in terms of the IFRS framework: assets, liabilities and equity

Statement of changes in owners equity

- Discuss the information about increases or decreases in the various components of owners' equity

Cash flow statement
(Statement of cash flows)

- Discuss the different sections of the cash flow statement: operating, investing and financing activities
- Explain the direct method versus the indirect methods in cash flow preparation
- Discuss important points to consider when analysing and interpreting cash flows
- Explain the concept of the cash rich standard

Other comprehensive income components

- Discuss other comprehensive income and identify major types of items included in it
- Explain how to calculate and interpret comprehensive income

Financial cosmetics and creative accounting

Asset recognition and classification

Expense versus capitalisation

- Distinguish between costs that are capitalised and costs that are expensed in the period in which they are incurred
- Discuss how capitalising costs versus expensing them in the period in which they are incurred, could affect financial statements and ratios

Current versus non-current assets

- Distinguish between current and non-current assets
- Discuss how classifying assets as current or non-current could affect the financial statements and ratios

Inventory

- Distinguish between costs included in inventories and costs recognised as expenses in the period in which they are incurred

Inventory valuation and cost allocation methods

- Describe different inventory valuation methods (cost formulas)
  - First-in-first-out (FIFO)
  - Weighted average cost
  - Specific identification
  - Last-in-last-out (LIFO)
- Calculate and explain how inflation and deflation of inventory costs affect the financial statements and ratios of companies that use different inventory valuation methods
- Convert a company's reported financial statements from LIFO to FIFO for purposes of comparison
- Describe the measurement of inventory at the lower of cost and net realisable value

Financial statement presentation and disclosures

- Describe the financial statement presentation of and disclosures relating to inventories
- Explain issues that analysts should consider when examining a company's inventory disclosures and other sources of information

Non-current assets:
Property, plant and equipment
Intangible assets
Investment property

Intangible asset acquisition methods

- Compare the financial reporting of the following types of intangible assets: purchased, internally developed, acquired in a business combination

Depreciation and amortisation

- Describe the different depreciation/amortisation methods for property, plant, and equipment and intangible assets
- Calculate depreciation and amortisation expense based on different methods: straight-line, units-of-production and sum-of-years digits
- Describe how the choice of depreciation/amortisation method and assumptions concerning useful life and residual value could affect depreciation expense, financial statements, and ratios

Impairment and revaluation

- Describe the revaluation model for property, plant, and equipment and intangible assets
- Explain the impairment of property, plant, and equipment and intangible assets
- Discuss how impairment, revaluation, and derecognition of property, plant, and equipment and intangible assets could affect the financial statements and ratios

Financial statement presentation and disclosures

- Describe the financial statement presentation of, and disclosures relating to, property, plant, and equipment and intangible assets
- Analyse and interpret financial statement disclosures regarding property, plant, and equipment and intangible assets

Investment property

- Compare the financial reporting of investment property with that of property, plant, and equipment

Lease accounting

Operating versus finance leases

- Compare the financial reporting of operating lease and finance lease
- Describe the classification of leases as finance lease or operating lease, for lessors and lessees
- Explain the new requirements in IFRS 16: Leases, and how it will affect financial statements and ratios of lessees

Financial reporting of leases from a lessee's perspective

- Explain the new IFRS requirement for lessees in IFRS 16: Leases (beginning fiscal year 2020):
    - Recognise a right-of-use asset and a lease liability for all leases longer than one year
    - An exception under IFRS exists for leases when the underlying asset is of low value
    - Lessee's annual expenses: depreciation expense on the right-of-use asset and an interest expense on the lease liability

Financial reporting of leases from a lessor's perspective

- Discuss the impact of the new IFRS requirement on lessors
- Explain lessor accounting for finance leases
    - Lessor's assets and annual income: lease receivable and imputed interest income
- Explain lessor accounting for operating leases
    - Lessor's assets: leased asset
    - Lessor's annual income and expenses: lease income and depreciation of leased asset

Group reporting

New IFRS standard IFRS 10: Consolidated financial statements

- New definition of control, used to assess whether an investment in another entity is a subsidiary, associate, joint venture or financial asset

- Consolidation of subsidiaries based on a transfer of risks and rewards versus control
- New concept of structured entities [previously, "special purpose vehicles/entities" (SPV/SPE)]
- Discuss how companies can use structured entities for balance sheet manipulation
- Introduce the concept of an "investment entity", the related exemption from consolidation and fair value measurement of the investment.
- Explain how accounting for structured entities and investment entities in the new IFRS 10 will impact the financial statements and ratios

Amended IFRS standard IFRS 3: Business combinations

- Compare the financial reporting using the new optional "full goodwill" method, to the "partial goodwill" method
- Explain when full or partial goodwill may be recognised
- Discuss the impact of the goodwill recognition method on non-controlling interest (previously "minority interest")
- Explain how using the full goodwill, versus the partial goodwill, method will affect the financial statements and ratios

New IFRS standard IFRS 11: Joint arrangements

- Describe the equity method of accounting for joint arrangements (previously, "joint ventures")

Case study: Accounting fraud by Worldcom

The WorldCom scandal was one of the most shocking and widespread frauds to rock Wall Street in a generation. In 2001, WorldCom, one of the world's largest telecommunication companies and a core dividend-paying stock that many retirees held in their portfolios, attempted to falsely inflate the earnings on its profit and loss statement by nearly $4 billion.

WorldCom carried out the fraudulent accounting through the machinations of upper management.

To grasp how the events happened, we'll investigate how management manipulated capital expenditures and expenses, and see how the accrual accounting method, which is a basic principle of accounting can be misused for financial reporting manipulation.

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Accounting malfeasance

Corporate accounting malfeasance is defined as the use of false or misleading accounting information, or omission of these entries, in the financial reporting process

Revenue recognition

- Cases of accounting malfeasance have commonly involved issues with revenue recognition, such as
  - premature recognition of revenues
  - the recognition of fraudulent revenues.
  - after-the-fact confirmations of poor-quality earnings, such as enforcement actions and restatements.

Expense recognition

- Cases of accounting malfeasance have involved:
  - misrepresentation of expenditures as assets rather than as expenses or
  - misrepresentation of the timing or amount of expenses.

Case study: Accounting malfeasance at Steinhoff

- We will analyse how the South African retailer Steinhoff had overstated profits over several years in a $7.4 billion accounting fraud involving a small group of top executives and outsiders.
- The scandal wiped out 216 billion rand from Steinhoff's market value, a dramatic turnaround of fortunes for a company that was once a must-have in fund mangers' portfolios.

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Assessing quality of financial reports (Financial reporting quality)

Introduction: Financial reporting quality

Discuss the difference between financial reporting quality and quality of reported results

We will only cover reporting quality, not quality of reported results

Factors that may influence the quality of financial reporting

- Explain conservative versus aggressive accounting
- Discuss motivations that might cause management to issue financial reports that are not high quality
- Describe conditions that are conducive to issuing low-quality, or even fraudulent, financial reports
- Describe presentation choices, that could be used to influence an analyst's opinion
- Describe accounting methods (choices and estimates) that could be used to manage earnings, cash flow, and balance sheet items
- Describe accounting warning signs and methods for detecting manipulation of information in financial reports

A summary: Financial statement analysis process

Phase	Sources of Information	Examples of Output
Define the purpose and context of the analysis.	• The nature of the analyst's function, such as evaluating an equity or debt investment or issuing a credit rating • Communication with client or supervisor on needs and concerns • Institutional guidelines related to developing specific work product	• Statement of the purpose or objective of the analysis • A list (written or unwritten) of specific questions to be answered by the analysis • Nature and content of report to be provided • Timetable and budgeted resources for completion
Collect input data.	• Financial statements, other financial data, questionnaires, and industry/economic data • Discussions with management, suppliers, customers, and competitors • Company site visits (e.g., to production facilities or retail stores)	• Organized financial statements • Financial data tables • Completed questionnaires, if applicable

Process input data, as required, into analytically useful data.	• Data from the previous phase	• Adjusted financial statements • Communication to stakeholders

Framework for assessing company's quality of financial reports

Assessment frameworks: Different use cases

- Discuss the use of a framework for the analysis of financial statements, given a particular problem, question, or purpose, for example:
  - Valuing equity based on comparable companies
  - Critiquing a credit rating
  - Obtaining a comprehensive picture of financial leverage
  - Evaluating the perspectives given in management's discussion of financial results

Sources of uncertainty and potential problems

Sources of uncertainty affecting financial reporting quality

- Discuss the main sources of uncertainty that may impact quality of financial reports:
  - Financial reporting choices (e.g. financial instrument classification, accounting policy options)
  - Estimation uncertainty: Estimated amounts (e.g. fair value), periods, discount rates, residual values, etc.
  - Exercising judgement when preparing financial statements: Assessing whether assets are impaired, determining whether investments in other entities constitute control, joint control or significant influence, classifying a lessor's lease agreements as operating or finance leases, etc.
- Discuss the implications of these sources of uncertainty for financial analysts and investors
- Discuss how management's integrity and professionalism (vis-a-vis choices, estimates and exercising of judgement when preparing financial statements) impact:
  - The quality of financial reporting
  - The comparability of relevant financial data with other companies and its industry
  - Consistency of reported amounts and information over several periods (i.e. current period compared to comparative periods)
- Explain how accounting policy choices, estimation and judgements made in the reporting process may affect financial decisions by management (executive, operational and financial)

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Potential problems affecting financial reporting quality

- Discuss the approach of assessing quality of financial reporting as spanning a continuum from the highest quality to the lowest
- Explain the main types of potential problems that affect the quality of financial reporting, namely:
  - Revenue and expense recognition on the income statement
  - Classification on the statement of cash flows
  - The recognition, classification, and measurement of assets and liabilities on the balance sheet

Evaluation of financial reporting quality

- Discuss the typical steps involved in evaluating financial reporting quality, namely:
  - Understanding of the company's business and industry in which the company is operating
  - Comparison of the financial statements in the current period and the previous period to identify any significant differences in line items
  - Evaluation of the company's accounting policies, especially any unusual revenue and expense recognition compared with those of other companies in the same industry
  - Financial ratio analysis
  - Examination of the statement of cash flows with particular focus on differences between net income and operating cash flows
  - Analysis of disclosures of judgements, estimates, risks and contingencies
  - Review of management compensation, shareholders' information and insider transactions

Sustainability of earnings, persistent earnings and accrued revenue

- Explain the concept of sustainable (persistent) earnings
- Discuss earnings with a significant accrual component, and how it impacts the sustainability of earnings
- Explain mean reversion in earnings and how the accruals component of earnings affects the speed of mean reversion

The Beneish Model: An analytical tool to identify financial fraud

Beneish model: An introduction

- Explain the Beneish model's function as a tool for financial analysts and investors
- Learn how the model quantifies the risk of financial reporting fraud (more specifically, probability of earnings manipulation)
- Discuss the Beneish model's mathematical formula, and its inputs (financial ratios and variables)

Beneish ratios and variables

- Explain how the ratios and variables are constructed: Days' Sales in Receivables Index (DSRI), Gross Margin Index (GMI), Asset Quality Index (AQI), Sales Growth Index (SGI), Depreciation (DEPI), Sales, General and Administrative Expenses (SGAI), Leverage Index (LVGI), Total Accruals to Total Assets (TATA)
- Discuss how to obtain required data from a company's financial statements
- Discuss how the Beneish model is used as a tool to uncover financial fraud

M-Score: An introduction

- Practice applying the Beneish method to calculating an M-Score
- Discuss whether the M-Score can predict stock returns in addition to earnings manipulation
- Explain how the M-Score serves to describe how much earnings may have been manipulated

Case study: Beneish's M-Score in action

We will apply the Beneish M-Score method to find how it correctly identified Enron as an earnings manipulator by students from Cornell University back in 2005. This was found at a point in time, when Wall Street financial analysts were still recommending to buy Enron shares.

Recommending adjustments to improve quality and comparability of financial reporting

- Explain how to identify errors or areas for improvement to the financial statements
- Guidance on how to draft recommendations for changes to the financial statements (as part of the drafting process, or for the purpose of analysis), such as:
    - Improving quality of disclosures and, correcting of errors (if identified) and alternative accounting treatments
    - Improving comparability to similar companies or industry benchmarks
    - Performing sensitivity analyses assuming given changes in accounting policies, estimates and assumptions
- Discuss how given changes in an accounting policies, accounting methods or assumptions could affect financial statements and ratios
- Analyse and interpret how balance sheet modifications, earnings normalization, and cash flow statement related modifications affect a company's financial statements, financial ratios, and overall financial condition.

Earnings and cash flow quality

Indicators of earnings quality

- Discuss the indicators of earnings quality
- Evaluate the earnings quality of a company

Indicators of cash flow quality

- Discuss the indicators of cash flow quality
- Evaluate the cash flow quality of a company

Balance sheet quality

Indicators of balance sheet quality

- For the balance sheet, high financial reporting quality is indicated by: completeness, unbiased measurement, and clear presentation.
- A balance sheet with significant amounts of off-balance-sheet debt would lack the completeness aspect of financial reporting quality.
- Unbiased measurement is a particularly important aspect of financial reporting quality for assets and liabilities for which valuation is subjective.
- Evaluate the balance sheet quality of a company

Financial and operating risks

Indicators of financial and operating risks

- Describe sources of information about risk
- A company's financial statements can provide useful indicators of financial or operating risk.
    - The management commentary (also referred to as the management discussion and analysis, or MD&A) can give users of the financial statements information that is helpful in assessing the company's risk exposures and approaches to managing risk.
    - Required disclosures can be a warning sign of problems with financial reporting quality, for example:
        - changes in senior management or
        - inability to make a timely filing of required financial reports.
- Discuss how the financial press can be a useful source of information about risk when, for example, a financial reporter uncovers financial reporting issues that had not previously been recognised